

February 2013 (to Mar 3)

Maps & details of timing / regions of events pages 2-10

A month of wild extremes & contrasts

- **Generally very cold and snowy in North / NorthEast, while v warm in SW at times.**
- **3 major cold blasts with snowstorms / blizzards in North/East (1-5, 13-17, 27-Mar3)**
- **Bitterly cold with drifting powdery snow in North-Center-West (8-10 & 13-17th)**
- **Quieter periods in between turning very warm in parts espec center/SW**
- **Pacific coast largely mild**

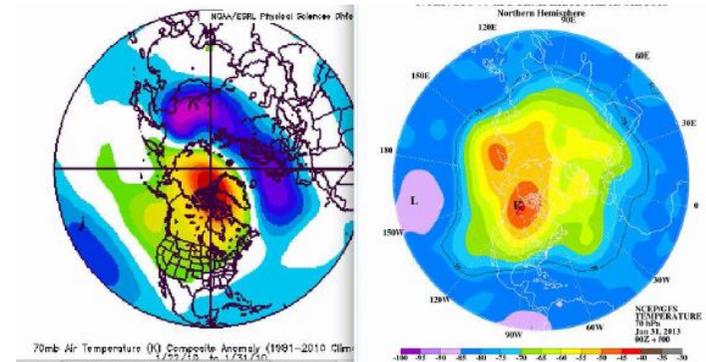
As in previous months these extreme contrasts associated with wide swings in the Jet stream are indicators of an approaching Little Ice Age situation in coming years and decades. The changes in circulation – which are part of world-wide pattern changes - will be caused by changes in Solar-Lunar factors which modify the behavior of the Jet stream and are predictable by WeatherAction's Solar Lunar Action Technique months ahead.

Standard Meteorology will run into serious problems this month especially in Weather Action main Red warning periods (eg **R4, R5**) during which standard Meteorology short range forecasts of precip will generally need to be doubled and thunder / tornado risk enhanced.

WeatherAction Long Range Forecasting Breakthrough **Predictable Sudden Polar Lower Stratosphere Warmings herald cold weather outbursts**

The phenomena that Sudden Warmings of the Polar Stratosphere (usually meaning upper stratosphere & termed SSWs – Sudden Stratospheric Warmings) in NH winter often precede increased waviness in the jet stream and consequent outbursts of very cold air well South, has been known since the '70s.

However reliable prediction of these phenomena was unknown until Piers Corbyn made the statement that there would be **two** major cold blasts this January (inc start Feb) in Britain/ Ireland /W Europe and N/NE USA (see pic for ~Feb1 onwards). Each would be associated with specific 'SSWs' he said, meaning in this case sudden warmings in the LOWER (eg 70mb level) stratosphere – and they both happened / are happening in both Europe and USA. Their dates: ~17-21st and ~31st-Feb5 cover WeatherAction Top Red (**R5+**) weather periods. After confusion with the UPPER stratosphere phenomena which had warmed earlier in the month & cooled and presaged more than one cold weather blast - was clarified, Joe Bastardi USA Meteorologist and master Met Model Monitor kindly tweeted with pics:



@Piers Corbyn has no peer in the stratosphere. Warming BELOW 10/30 mb too just as big a key. Shades of 2010
pic.twitter.com/piHCSNzM

Piers said "This is really cool. Our two predicted cold snowy bursts ~17-21st and ~31Jan-5Feb – now clearly coming in USA & Europe and in our Long Range forecasts – were both preceded a few days earlier by sudden warming peaks of the ~70mb polar stratosphere See bit.ly/XgdMKd, which broke records for the dates. We have another one further into Feb."



USA Key Developments & Extremes Forecast FEBRUARY 2013

From data 15/30 Jan Page 2 KEY WEATHER PERIODS. All Available on line via <http://www.weatheraction.com/wactmember.asp>

FEBRUARY 2013 – Key Weather Developments in 8 weather periods

FEBRUARY 1-5 Solar Factors: R5 31 Jan – Feb 3; R4 Feb 4. Forecast for this period is a copy of that issued 28 Dec for Jan 29 - Feb 3 with extra weather warning. **WARNING:** Standard meteorology forecasts on TV and web will significantly underestimate ferocity of event in this **RS+** period to Feb 3 and the R4 Feb 4th wind strengths, and thunder / tornado risk will be higher and precipitation amount will be typically double or treble those forecast 12 or 24 hrs ahead. For discussion <http://bit.ly/XgdMKd>
Forecast: High pressure in central/West parts. Deep powerful low pressure centered over Great Lakes/ NE. Probably high pressure off West coast. General NW'ly flow over most parts. Snow showers in Nth and East, then **ANOTHER GREAT BLIZZARD** in north and east parts, with extremely cold air from central Canada crossing N-central parts and the Great Lakes. Thundersnow, tornado development and large hail. Cold and largely dry/snow showers in central parts. Extremely cold North Central USA. Snow showers then snow deluges likely Vancouver area.

FEBRUARY 6-7 Solar Factors: R3 6-7th. A transition period details low confidence. Deep Low of previous period moves to far NE and High builds in East half of USA. High pressure Far West and Low in West Centre parts. Mod / strong SE wind from Gulf into Texas and New Mexico.
Far NE very cold wind from Canada. East becoming mostly dry and bright / sunny. Great Lakes snow showers continue but lessen. Texas and New Mexico become unusually mild / warm / very warm. West coast including Vancouver mild / warm. West Central parts cool with North wind and wintry showers. Central North parts (eg Kansas, Nebraska) major thunderstorms and high tornado risk.

FEBRUARY 8-10 Solar Factors: R3 8-10th. Active Low pressure in NE brings continuing snow and very cold air. High pressure dominates East Center and SE including Florida. Large area of Low pressure West-North-Central parts. High pressure band near West coast.
Continuing very cold blast with snow showers NE USA and Great Lakes. Gulf States and Texas, New Mexico very warm and mostly sunny. North Central West parts major thunderstorms and deluges with large hail continue. West continues mild, California very mild. Montana cold with snow showers.

FEBRUARY 11-12 Solar Factors: NSF/Q. Low pressure moves into East from Central parts and a general circulation change takes over. High pressure centered in Canada North of Center USA. Probably High pressure NW USA. Generally slacker situation than previous weather period. NE USA showery cloudy and foggy. Much less cold than before. East USA generally showery and cloudy. East Central parts sunny periods and showers at times. Gulf States much cooler. Texas and New Mexico dry turning cold. California probably cool and dry. NW dry, mildish and bright.

FEBRUARY 13-17 Solar Factors: R5 13-16th Rapid increase in activity and storminess. Low in East moves NE and deepens rapidly bringing blizzards, snow and thundersnow to NE and East and Central / East parts. Highs over West Great Lakes and North Central parts and probably other Central parts. Low Texas / SW. High West coast. Low North of West half USA. Seriously disruptive and dangerous blizzards snow and thundersnow NE with major drifting. Mostly mild on West coast probably turning wet and windy in Vancouver area.

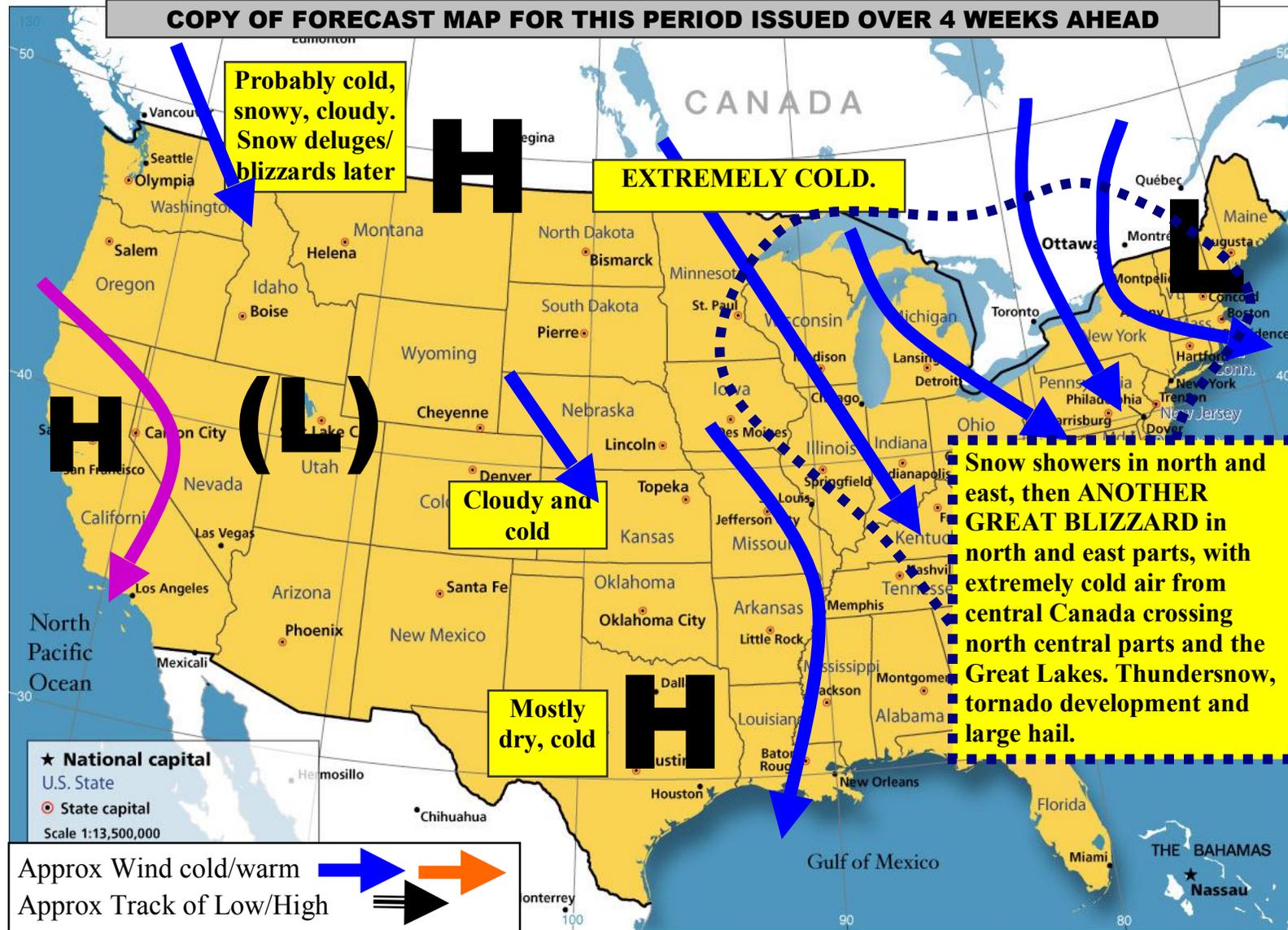
FEBRUARY 18-21 Solar Factors: R2 18-21st. Becoming generally slacker. Active Low in NE probably moves to over Great Lakes and fills. High in West and Central parts builds. Lower pressure in far SW. Warm air from Mexico heads North. North / East showery, cloudy and mildish. Mostly fine and sunny in Central and West with variable winds from Mexico bringing warm weather to Texas and New Mexico. West coast and perhaps NW probably dry and quite mild.

FEBRUARY 22-25 Solar Factors: R3 22-23rd. Low to NE expands to include a large part off NE USA. High pressure strip from West of Gulf Northwards. Mostly High pressure in West half of USA. Spring flow of cold air from Canada through Central / East parts to Gulf.
Heavy snow in North Central parts and over most of Great Lakes. Some thunder with the snow. West coast and West USA mild and dry. Frosts in NW parts.

FEB 26-MAR 3 Solar Factors: R3 26th R5 27-Mar 2nd. Low pressure over Great Lakes / NE deepens rapidly. High in Central / West parts strengthens. in north and east parts, with extremely cold air from central Canada crossing N-central parts and the Great Lakes. A major storm system in N/E. Major snowstorms and blizzard in N/E with probably heavy rain in Central East parts. Thunderstorms, thundersnow, wind damage and serious travel disruption.
Far SW warm wind from Gulf triggering thunderstorms in Texas. West coast mostly bright with south wind and somewhat humid. **MAPS of Weather periods page 3 onwards**

FEB 1 – FEB 5 Forecast Confidence B = 75%. Timing normally to one day; positions approximate.

COPY OF FORECAST MAP FOR THIS PERIOD ISSUED OVER 4 WEEKS AHEAD



Key Weather Development
29 JAN – 3 FEB

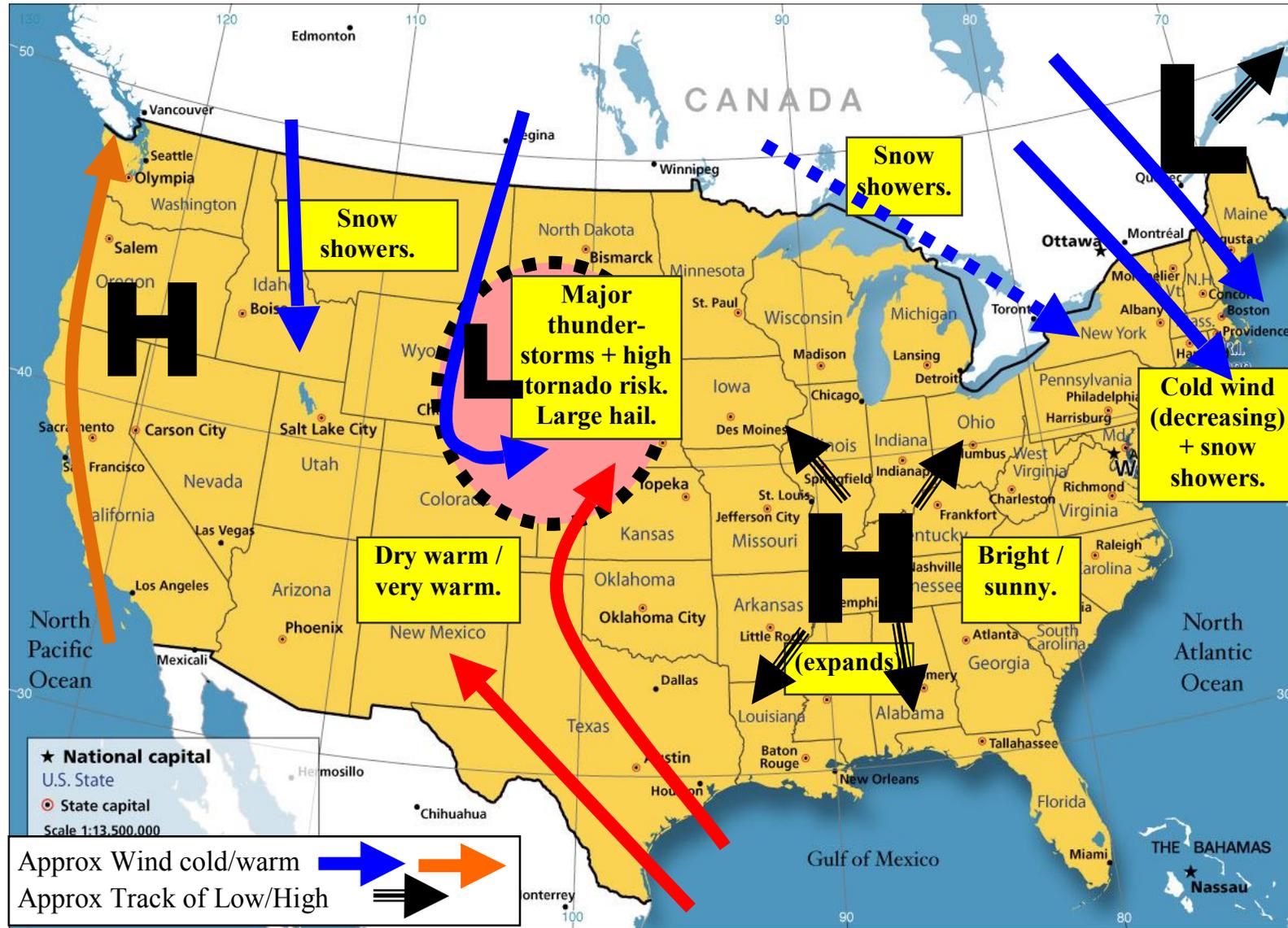
Solar Factors: R5 31 Jan – Feb 3; R4 Feb 4th.

The forecast for this period is a copy of that issued 28 Dec for Jan 29 to Feb 3 with extra warning.

WARNING: Standard meteorology forecasts on TV and web will significantly underestimate ferocity of event in this **RS+** period to Feb 3 and the **R4** Feb 4. Wind strengths, and thunder / tornado risk will be higher and precipitation amount will be typically double or treble those forecast 12 or 24 hours ahead. For discussion see <http://bit.ly/XgdMKd>

High pressure in central/West parts. Deep powerful low pressure centred over Great Lakes/ NE. Probably high pressure off West coast. General NW'y flow over most parts. Snow showers in Nth and East, then **ANOTHER GREAT BLIZZARD** in north and east parts, with extremely cold air from central Canada crossing N-central parts and the Great Lakes. Thundersnow, tornado development and large hail. Cold and largely dry/snow showers in central parts. Extremely cold North Central USA. Snow showers then snow deluges likely Vancouver area.

FEBRUARY 6 - 7 Forecast Confidence C = 65%. Timing normally to one day; positions approximate.



Key Weather Development FEBRUARY 6 - 7

Solar Factors: R3 6-7th

A transition period details low confidence.

Deep Low of previous period moves to far NE and High builds in East half of USA.

High pressure Far West. Low ~West Centre.

Mod / strong SE wind from Gulf into Texas and New Mexico.

Far NE very cold wind from Canada.

East becoming mostly dry and bright / sunny. Great Lakes snow showers continue but lessen.

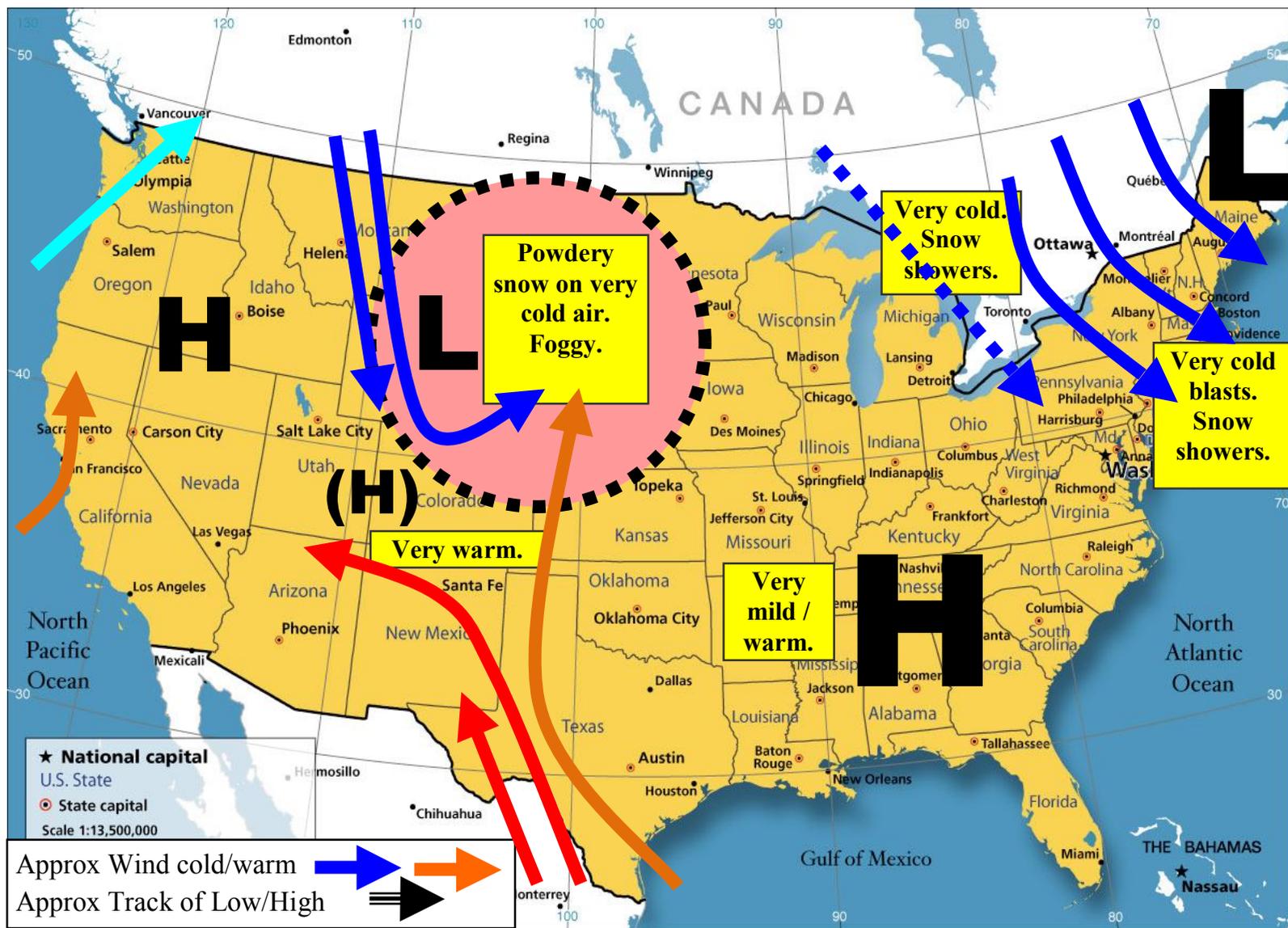
Texas and New Mexico become unusually mild / warm / very warm.

West coast including Vancouver mild / warm.

West Central parts cool with North wind and wintry showers.

Central North parts (eg Kansas, Nebraska) major thunderstorms and high tornado risk.

FEBRUARY 8 – 10 Forecast Confidence B = 75%. Timing normally to one day; positions approximate.



Key Weather Development FEBRUARY 8 - 10

Solar Factors:
R3 8-10th.

Active Low pressure in NE bring continuing snow and very cold air. High pressure dominates East Center and SE including Florida. Large area of Low pressure in West - North-Central parts. High pressure band near West coast.

Continuing (very) cold blast with snow showers NE USA and Great Lakes.

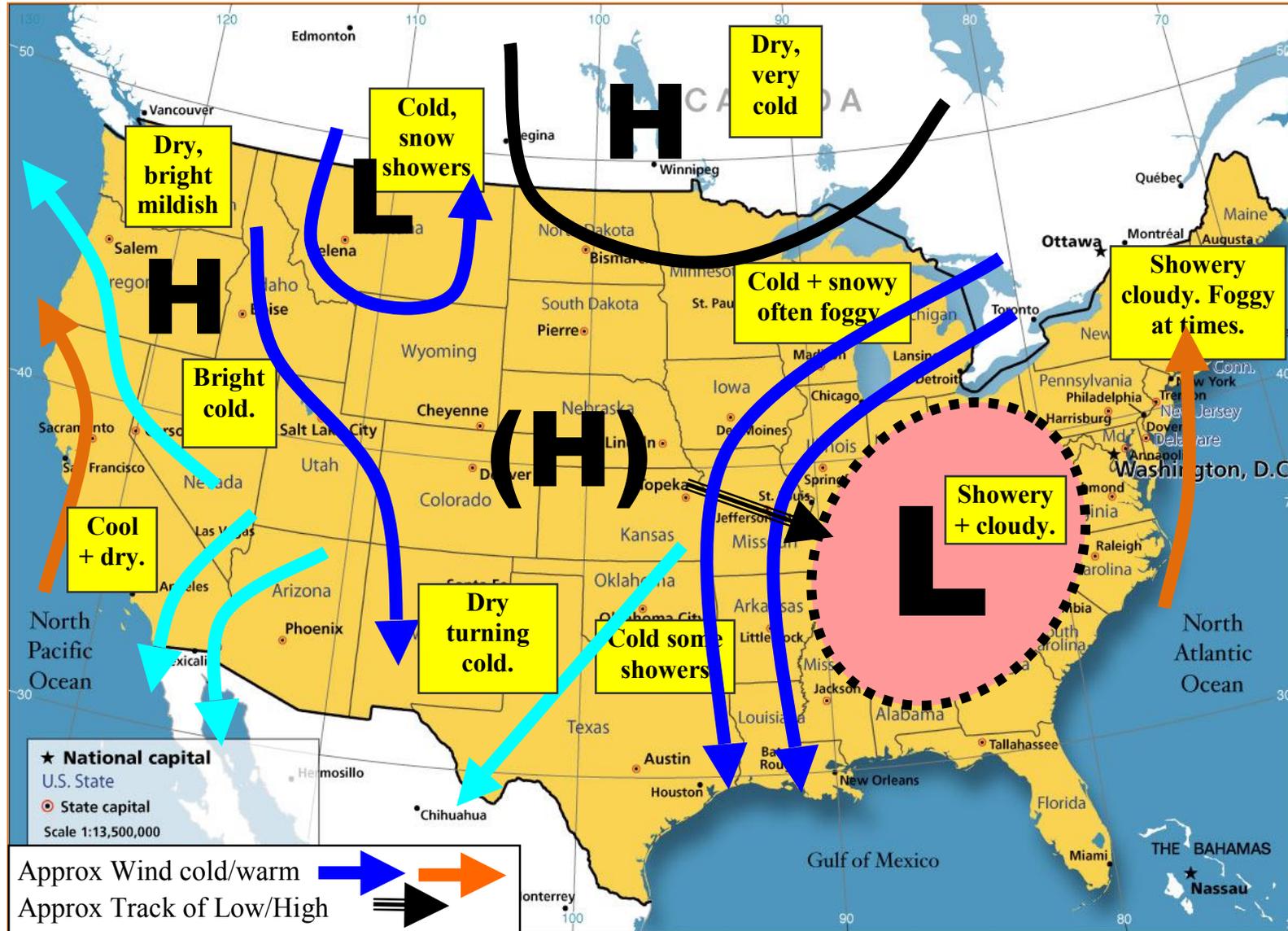
Gulf States and Texas, New Mexico very warm and mostly sunny.

North Central West parts major thunderstorms and deluges with large hail continue.

West continues mild, California very mild.

Montana cold with snow showers.

FEBRUARY 11 - 12 Forecast Confidence B = 75%. Timing normally to one day; positions approximate.



Key Weather Development FEBRUARY 11 - 12

Solar Factors:
 NSF/Q

Low pressure moves into East from Central parts and a general circulation change takes over.

High pressure centered in Canada North of Center USA.

Probably High pressure NW USA. Generally slacker situation than previous weather period.

NE USA showery cloudy and foggy. Much less cold than before.

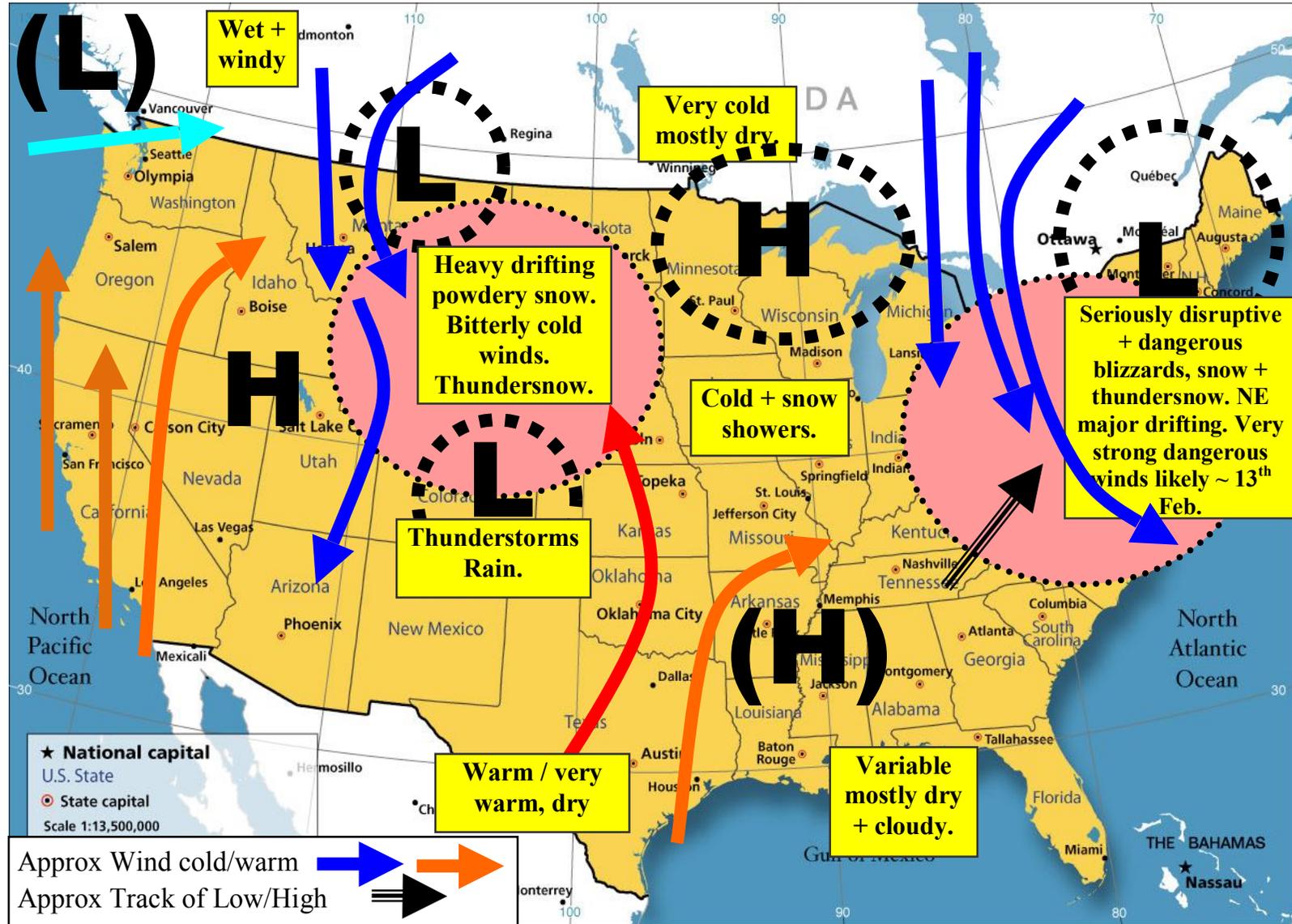
East USA generally showery and cloudy.

East Central parts sunny periods and showers at times.

Gulf States much cooler. Texas and New Mexico dry turning cold.

California prob cool & dry. NW dry, mildish & bright.

FEBRUARY 13 - 17 Forecast Confidence AB = 80%. Timing normally to one day; positions approximate.



Key Weather Development FEBRUARY 13 - 17

Solar Factors: R5 13-16th.

Rapid increase in activity and storminess. Low in East moves NE and deepens rapidly bringing blizzards, snow and thundersnow to NE and East and Central / East parts.

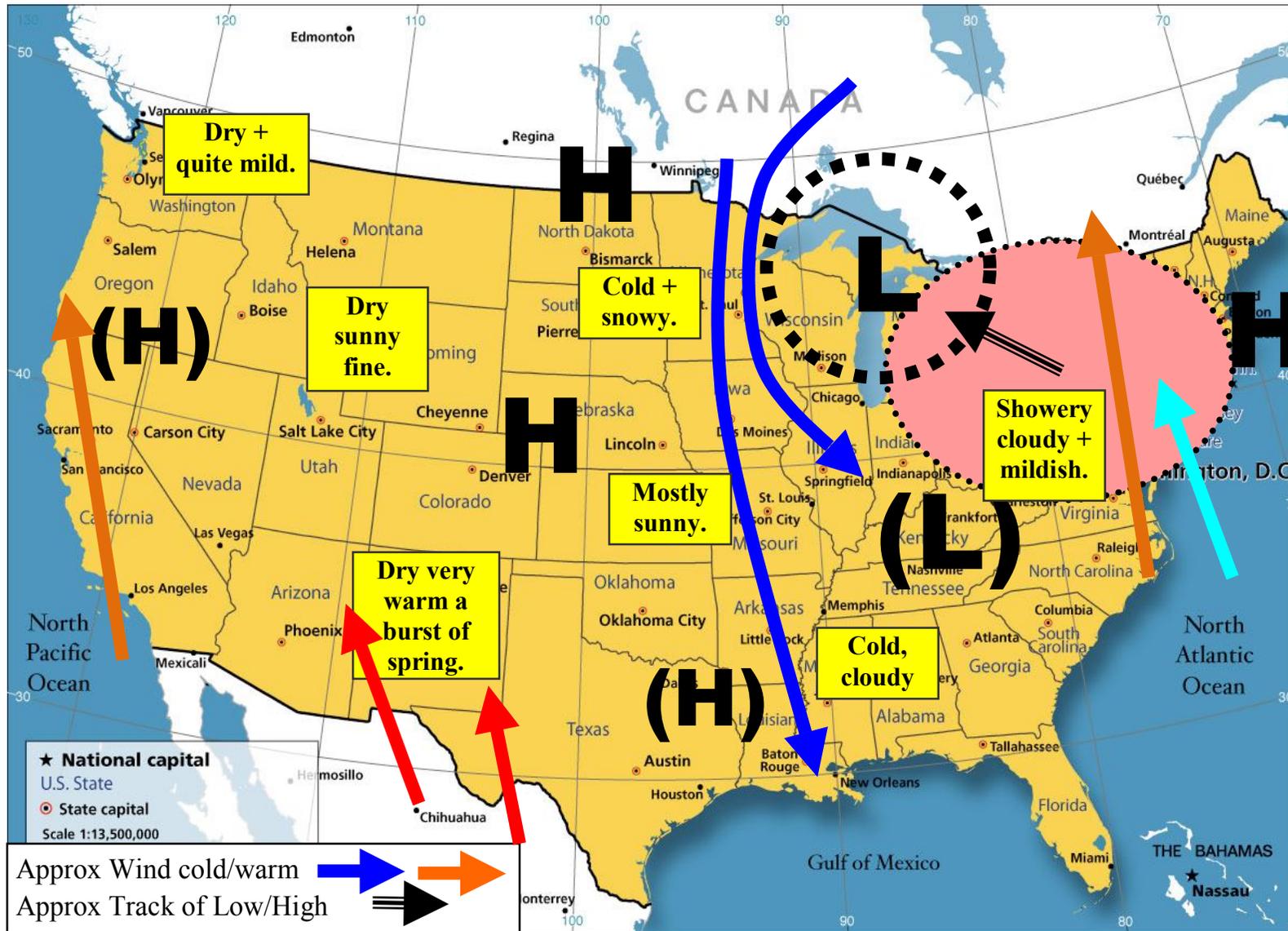
Highs over West Great Lakes and North Central parts and probably other Central parts.

Low Texas / SW.
High West coast.
Low North of West half USA.

Seriously disruptive and dangerous blizzards snow and thundersnow NE with major drifting.

Mostly mild on West coast probably turning wet and windy in Vancouver area.

FEBRUARY 18 - 21 Forecast Confidence AB = 80%. Timing normally to one day; positions approximate.



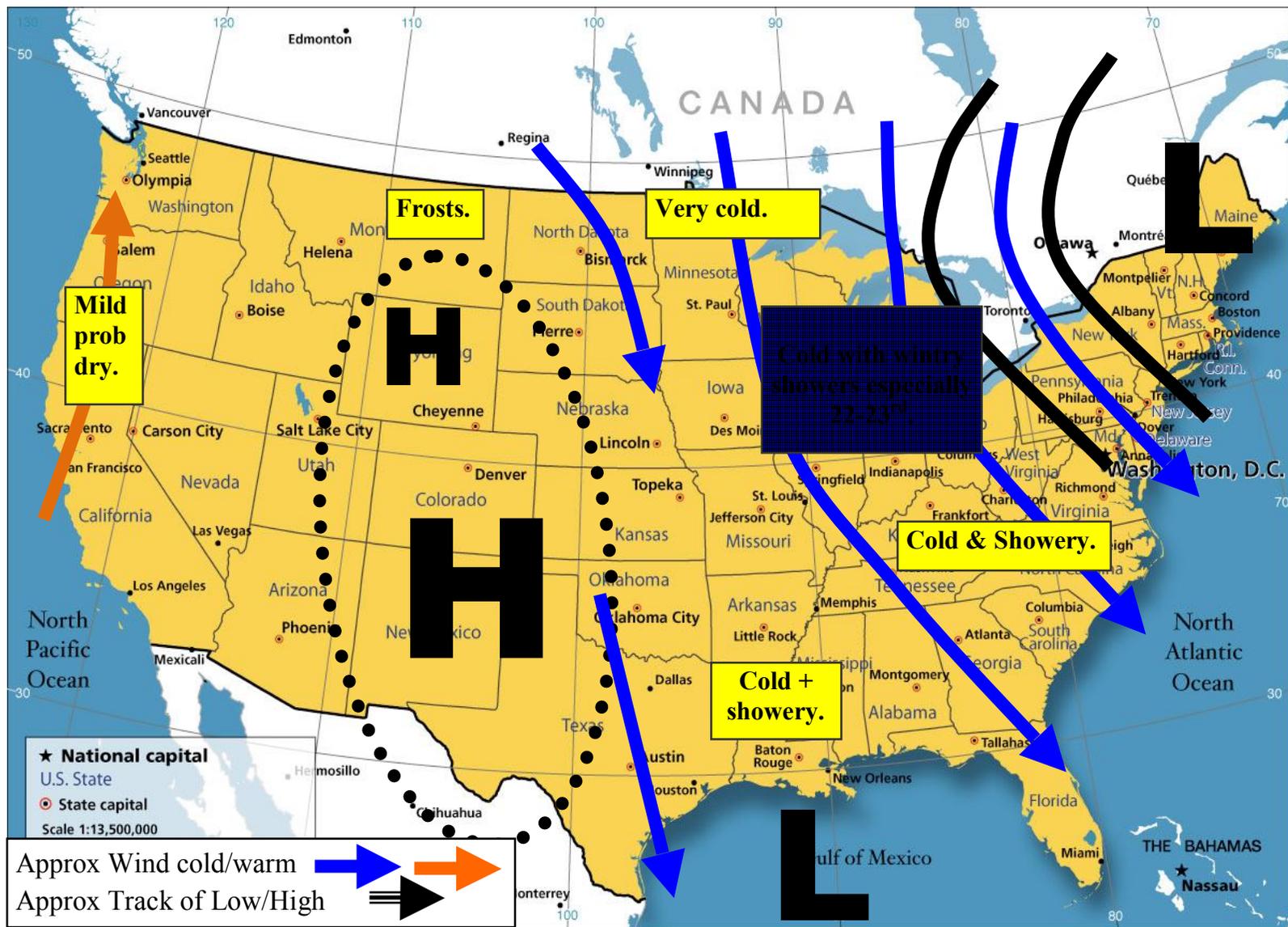
Key Weather Development FEBRUARY 18 - 21

Solar Factors:
R2 18-21st.

Becoming generally slacker. Active Low in NE probably moves to over Great Lakes and fills. High in West and Central parts builds. Lower pressure in far SW. Warm air from Mexico heads North.

North / East showery, cloudy and mildish. Mostly fine and sunny in Central and West with variable winds from Mexico bringing warm weather to Texas and New Mexico. West coast and perhaps NW probably dry and quite mild.

FEBRUARY 22 - 25 Forecast Confidence A = 85%. Timing normally to one day; positions approximate.



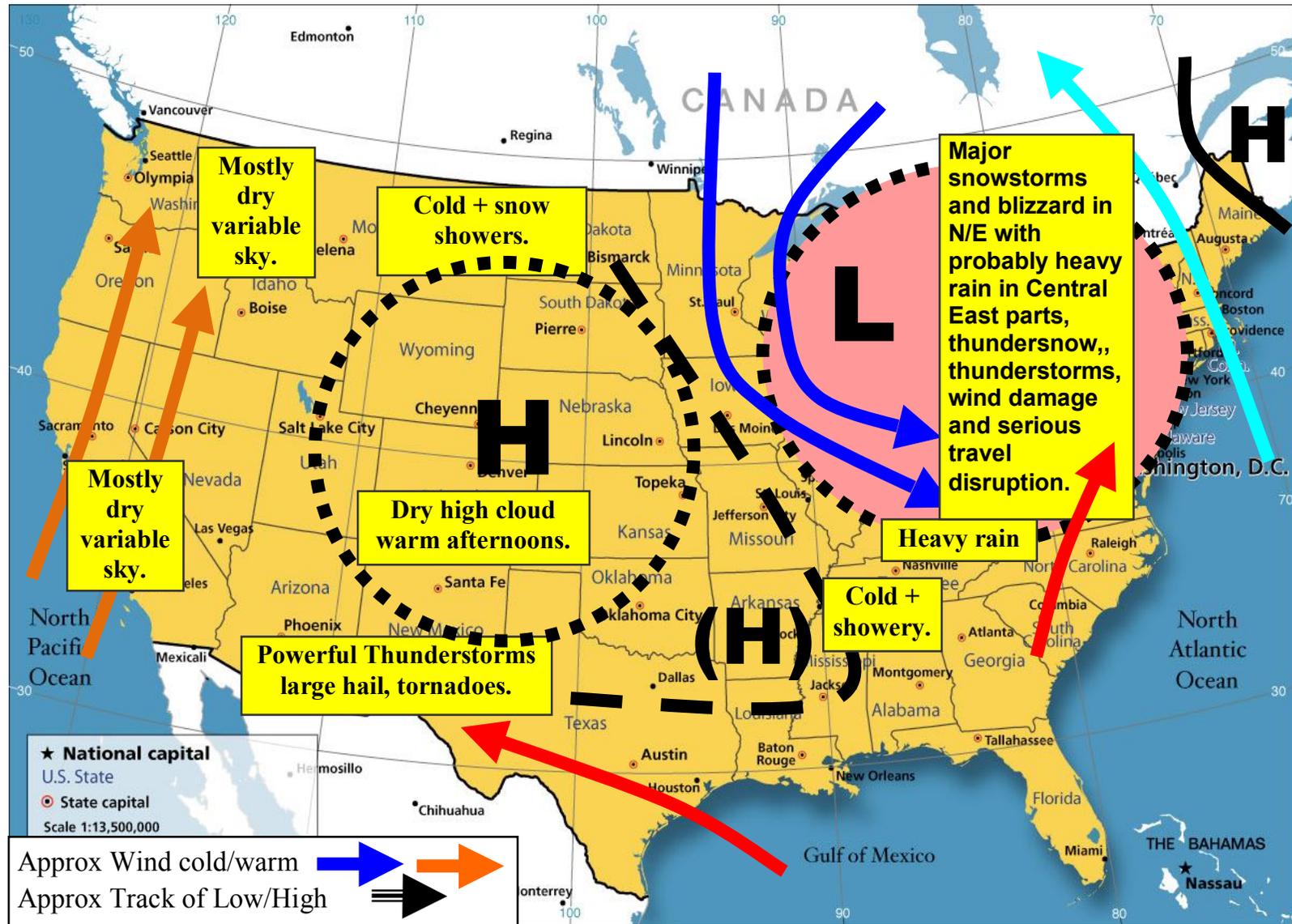
Key Weather Development FEBRUARY 22 - 25

Solar Factors:
R3 22-23rd.

Low to NE expands to include a large part off NE USA. High pressure strip from West of Gulf Northwards. Mostly High pressure in West half of USA. Spring flow of cold air from Canada through Central / East parts to Gulf.

Heavy snow in North Central parts and over most of Great Lakes. Some thunder with the snow. West coast and West USA mild and dry. Frosts in NW parts.

FEB 26 – MAR 3 Forecast Confidence AB = 80%. Timing normally to one day; positions approximate.



Key Weather Development 26 FEB – 3 MAR

Solar Factors:
R3 26th
R5 27th – Mar 2nd.

A simple powerful set-up.
 Low pressure over Great Lakes / NE deepens rapidly.
 High in Central / West parts strengthens.

A major storm system in N/E. Major snowstorms and blizzard in N/E with probably heavy rain in Central East parts. Thunder, thundersnow, wind damage and serious travel disruption.

Far SW warm wind from Gulf triggering thunderstorms in Texas.
 West coast mostly bright with south wind and somewhat humid.