

## **USA GRAIN WEATHER 4/6/17**

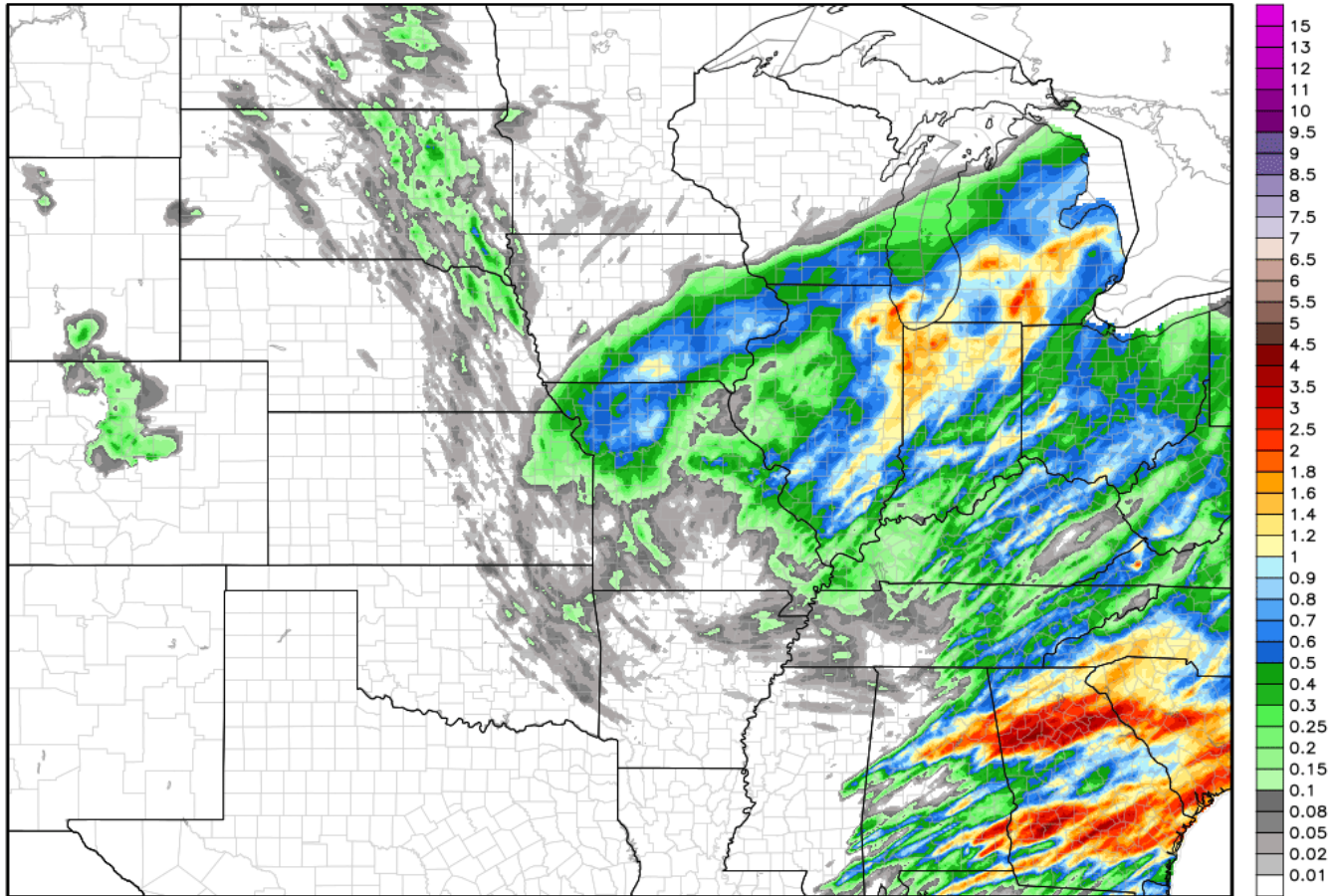
As we talked about earlier in the week .. once we get past today with the Big LOW over the Northeast.. most of the Plains and the the Midwest will see fairly dry conditions for next seven days are so. And over the Deep South the dry interval may last as long as 10 days. So in that sense it is safe to say THIS wet / stormy interval is over. But it would be a mistake to believe that the rest of April is going to be dry . The best way to describe this drier and quieter interval for the next 7 days would be to suggest or say that the stormy wet pattern is reloading. All the model data clearly shows and return to a wet and stormy pattern in the 11 to 15 day for all of the Plains and eventually into the Midwest regions.

### **RAINFALL LAST 2DAYS**

**This image shows the total rainfall from WED 0700 to THUR 0700** As you can see large portions of northern and eastern MO into southeast half of IA all of ILL IND far southeast WI Most of MI and OH saw 0.25 to 1.75" / 6-65 mm with 70 % coverage. There were a few reports of rain amounts to 2"/50mm in the Chicago Metro areas and western IND. Lighter rains of 0.25-0.75"/6-20mm fell over 60% of central and e astern KY and 50% of eastern half of TB. The dry areas of eastern AL GA and SC saw 0.50 -3.0" 6-75mm rain with 70% coverage

NWS Precipitation Analysis 4-km HRAP Grid -- 1-day Total Accumulation  
Total Precipitation [inches] between 12Z05APR2017 -- 12Z06APR2017

Domain Max: 4.7 in.



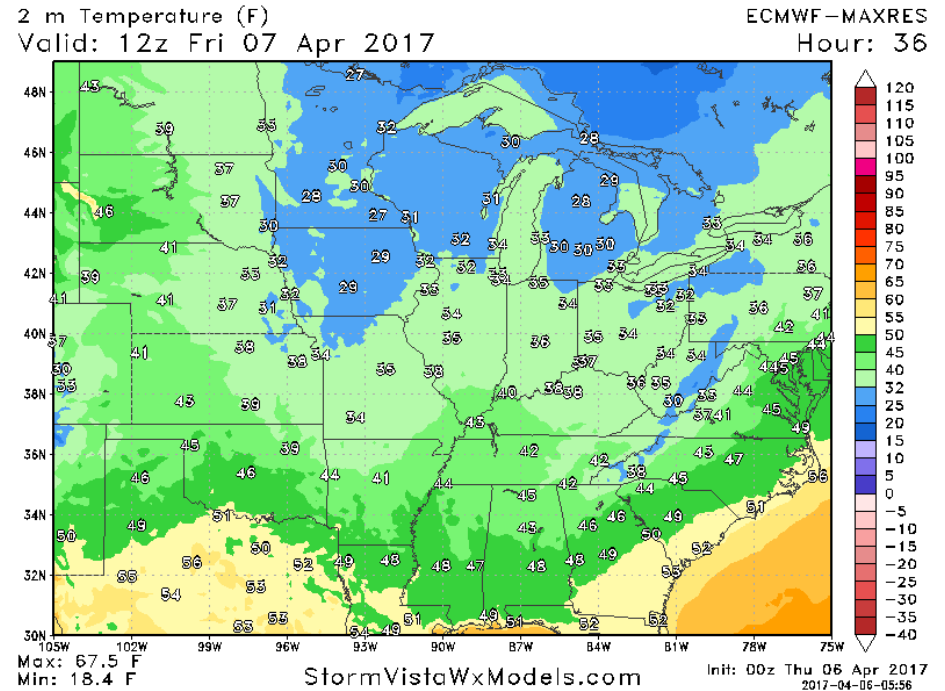
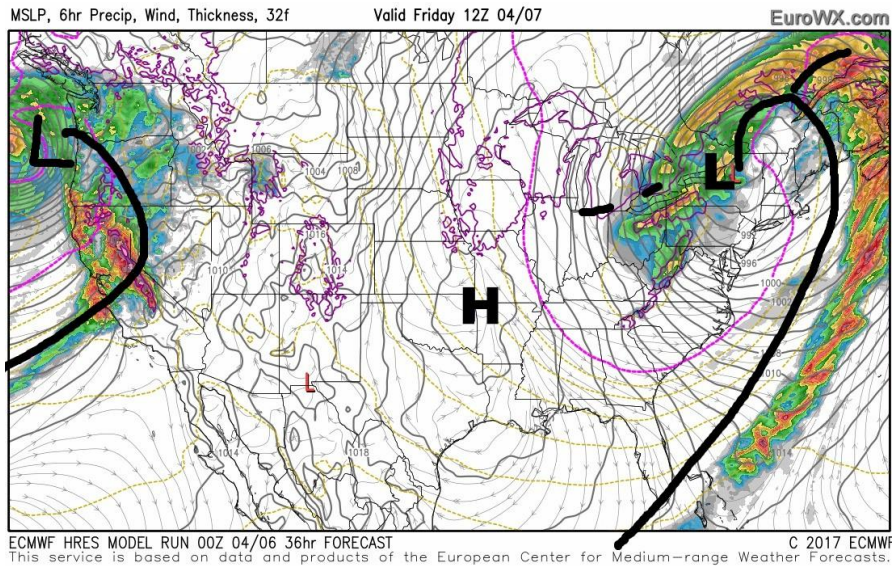
4 km HRAP grid | End of hydrological day at 1200 UTC | <http://water.weather.gov/precip>

## **RADAR** <http://radar.weather.gov/Conus/full.php>

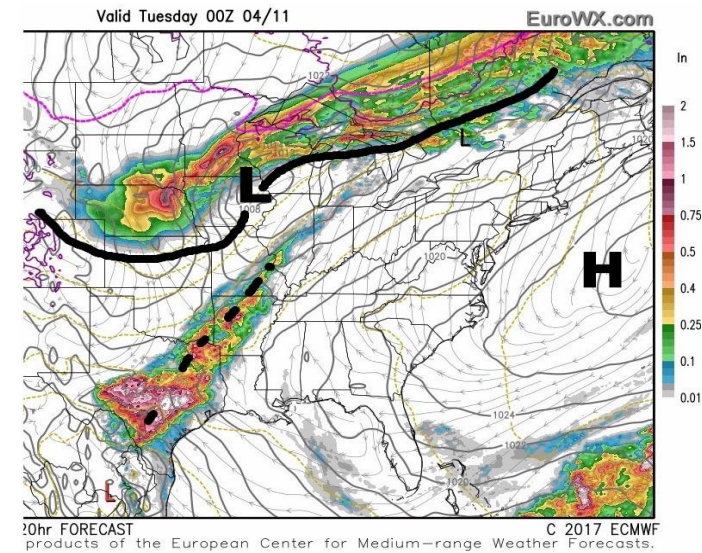
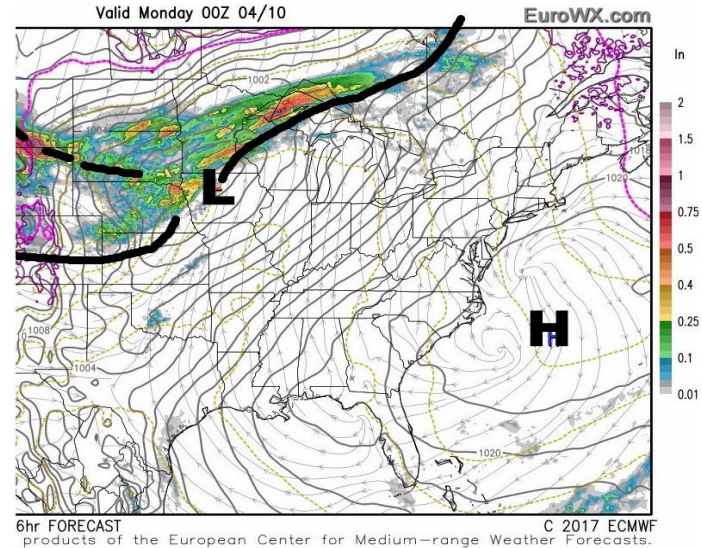
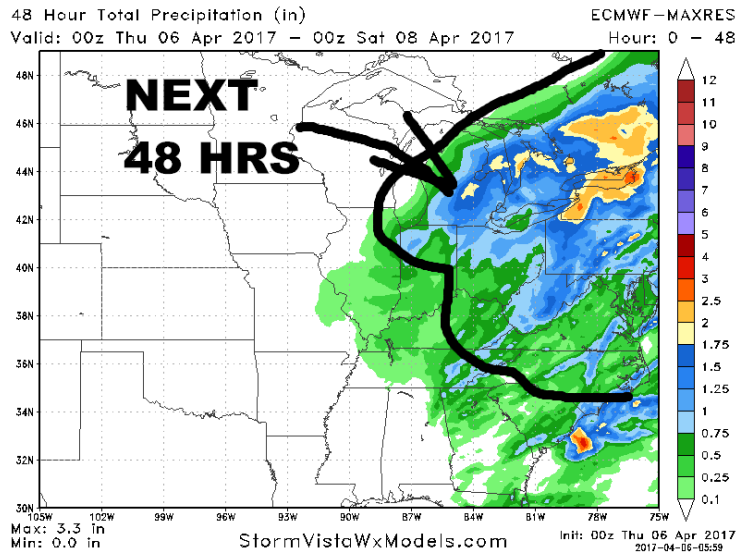
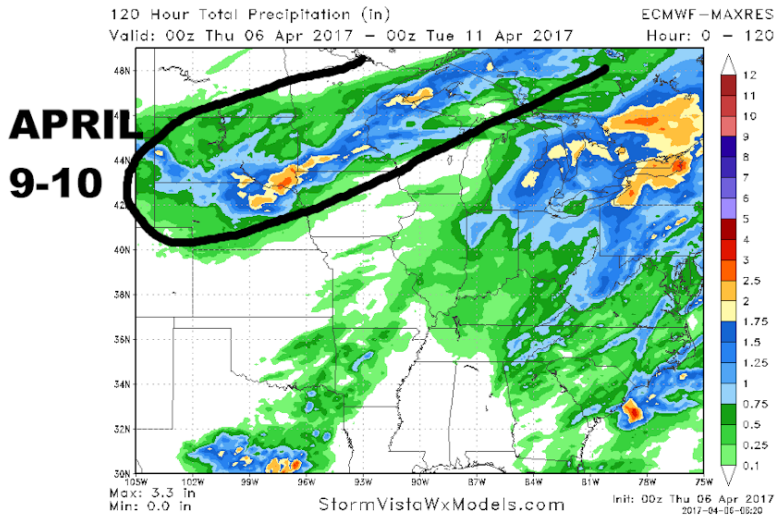
Moderate rains are falling over 60% of central and eastern TN KY ... 50% of eastern IND 40% of OH WVA 60% of PA western NY MD and VA... and SNOW over much of MI

# NEXT 5 DAYS

The last of the really big weather systems for the next few days has now pushed up into the northeast U.S. The severe weather threat for the eastern half the country is now pretty much over with and the strong area of LOW pressure is pulling in some windy and very cold conditions across the eastern Great Lakes including locations such as Michigan Ohio and eastern Ontario Canada. These areas will actually see snow showers all the next 24 to 48 hours. The cold air coming in behind the system is fairly significant and the image on the right shows the forecasted morning low temperatures for Friday morning over the Great Lakes and WCB region.



The weekend itself looks fairly dry. The large cold HIGH pressure system will move off the East Coast early next week and the surface winds will become southwesterly for all the Plains ...the Midwest of but especially east of Mississippi River . A area of LOW pressure moving in from the northern Rockies will push up against this strong HIGH pressure system and slow down or stall across the upper Plains and WCB regions on April 10 and 11. This will result in a area of moderate rain 0.35-1.5"/ 8-38mm over 60% of northern Nebraska ...southern South Dakota ...central and southern Minnesota and northwest Wisconsin. The southern end of this front will stall over eastern Texas and showers and thunderstorms will begin to increase in that area on April 11.



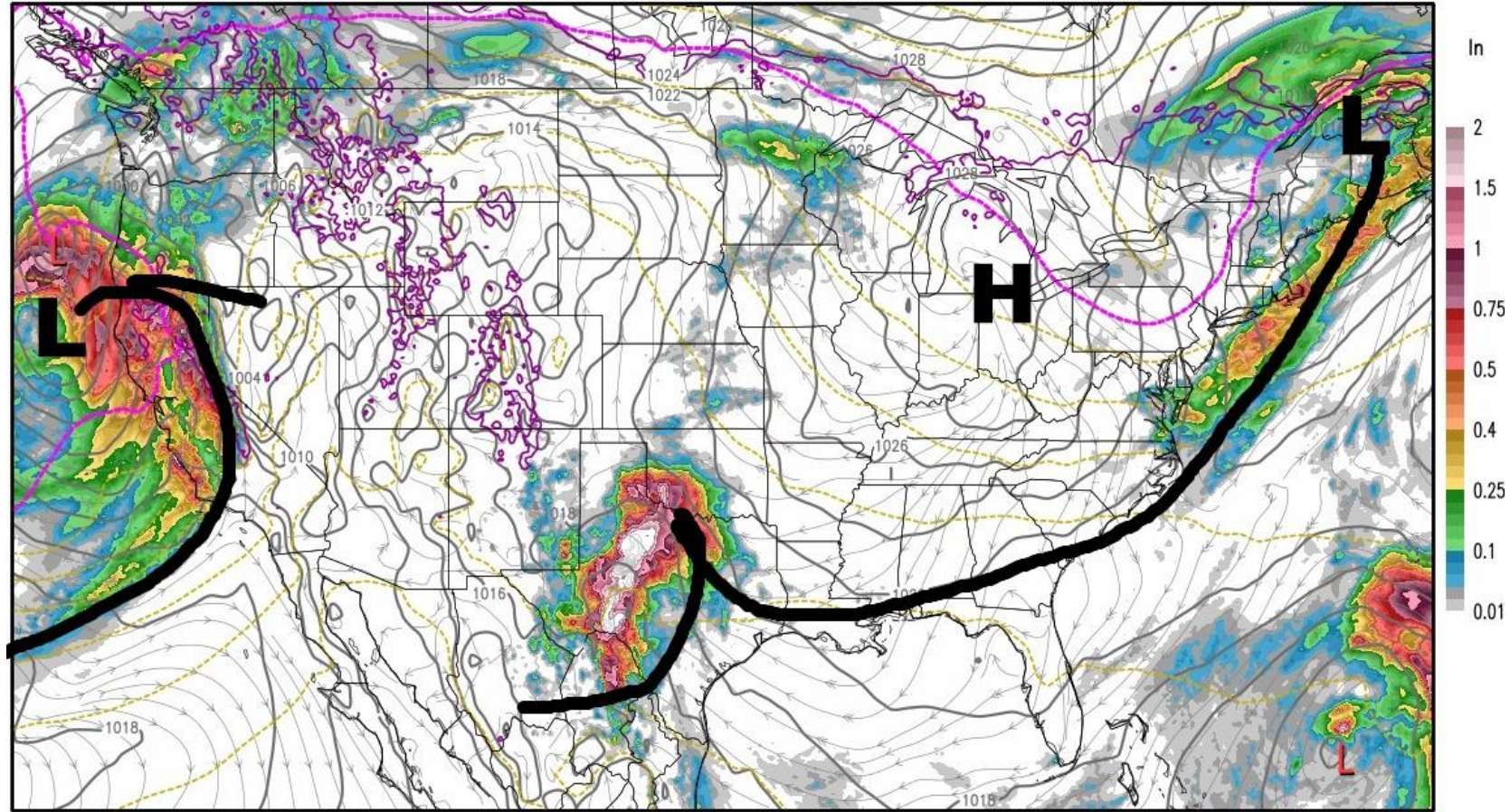
## 6-10 DAY

This image shows the surface map valid for Thursday, April 13. Notice the new strong system entering central and northern California coastal areas and large area of HIGH pressure covering most of the Plains and the Midwest. Notice however the stalled front which is producing increasing rain and storms over central and western Texas.

MSLP, 12hr Precip, Wind, Thickness, 32f

Valid Thursday 12Z 04/13

EuroWX.com



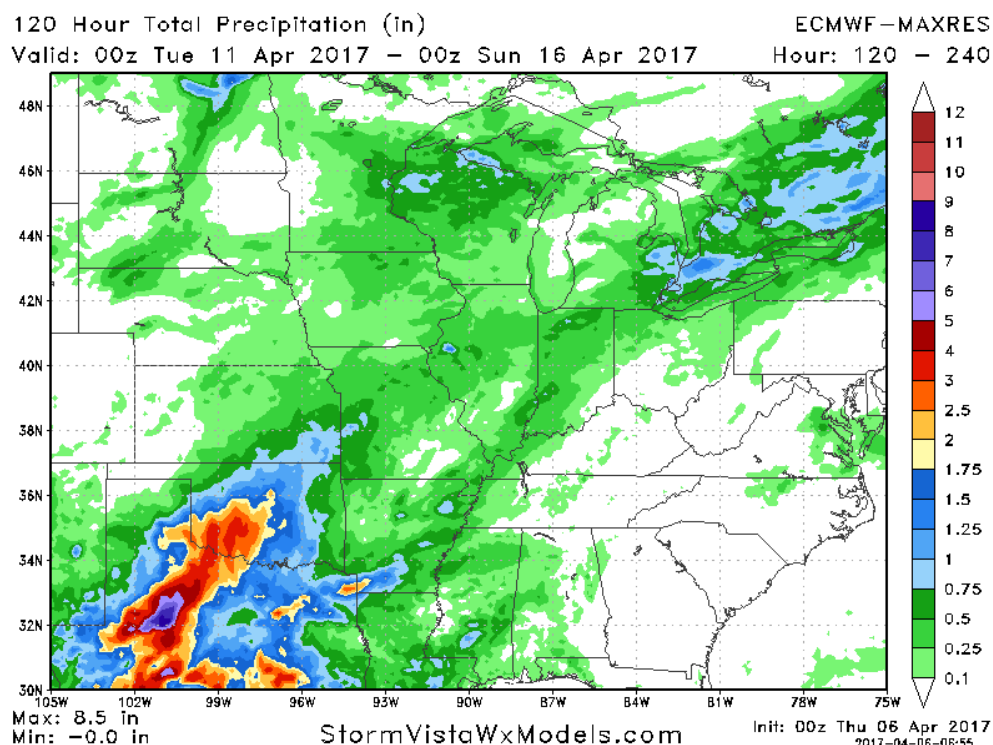
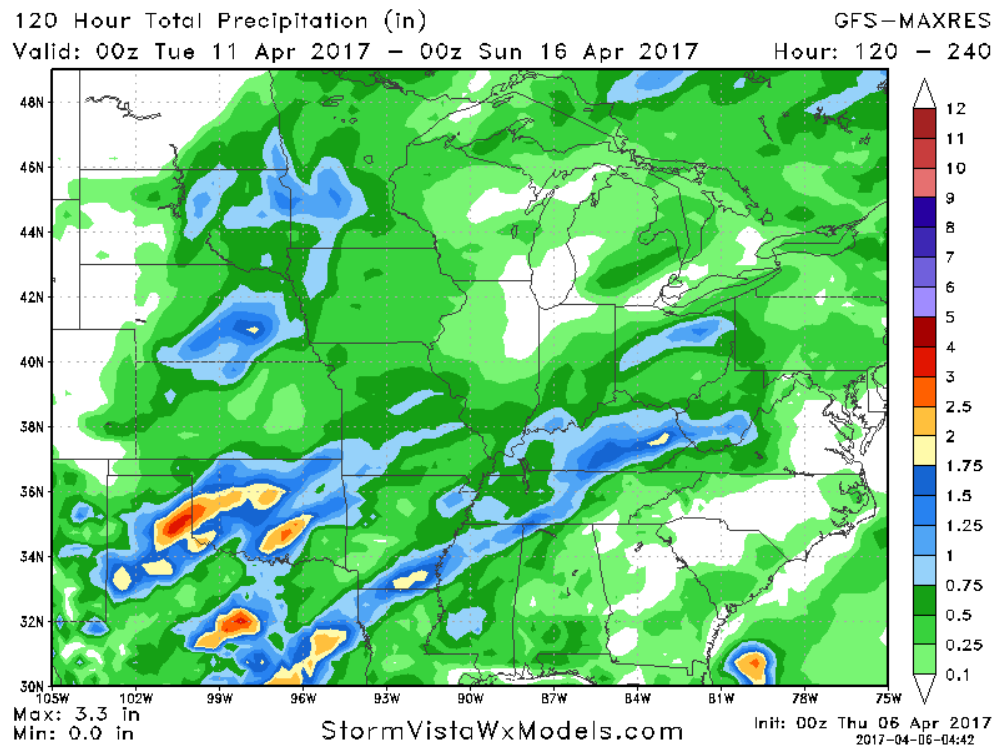
ECMWF HRES MODEL RUN 00Z 04/06 180hr FORECAST

C 2017 ECMWF

This service is based on data and products of the European Center for Medium-range Weather Forecasts.

This next image gives this idea about how significant these rains will be over Texas and eventually into Oklahoma in the 6-10day. Surprisingly the European model has significantly more rain with better coverage than the GFS model. The European shows a solid area of 2-8" /50-200mm covering 60 to 70% of western and central Texas into southwest Oklahoma. The GFS model is significantly lighter in terms

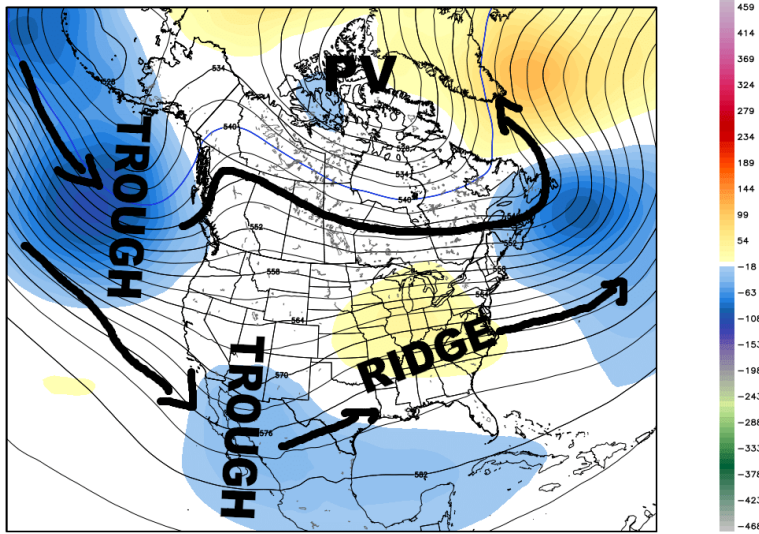
of rainfall amounts and shows significantly less coverage. What both models do agree upon is that most of the Midwest and the central upper Plains look to be fairly dry in this timeframe.



## 11-15 DAY

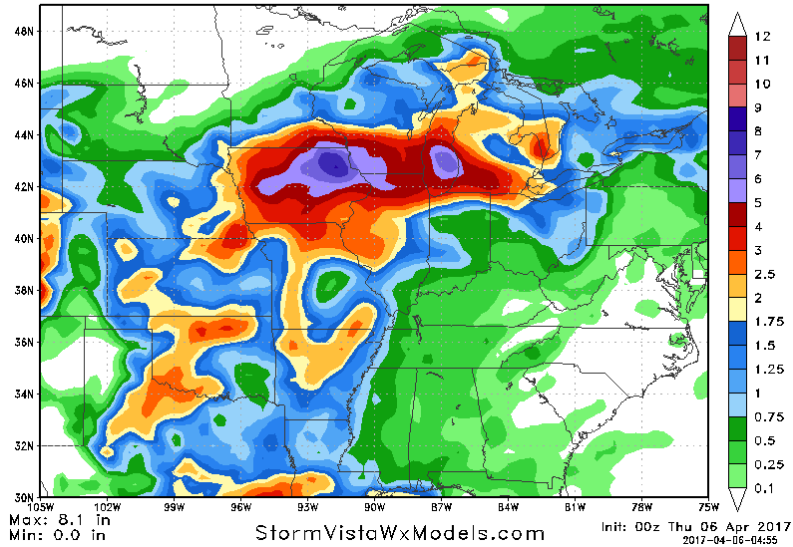
As we talked about in a previous report... a major surge of energy in the Pacific jet stream is going to slam into California by the end of next week. This will develop a deep and persistent trough over the eastern Pacific and West Coast. And this in turn will set up the return of another wet and possibly excessively wet pattern for a good portion of the Plains ...the Midwest ...and the Delta region.

ECMWF EPS Ensemble Mean 500 hPa Geopotential Height [dm] & Anomaly [m]  
 INIT: 00Z06APR2017 fx: [312] hr --> Wed 00Z19APR2017 Min/Max: -111.4 | 114.3 m



This image shows the jet stream map valid for April 19. Notice the persistent trough over the Southwestern states and northwest Mexico. In this sort of weather patterns areas of LOW pressure get ejected from Arizona / New Mexico or Northwest Mexico and track in a ENE direction into the lower Plains and the heart of the Midwest. This in turn brings about above normal rainfall. In addition there is also a deep trough over the eastern Pacific which threatens to move into the West Coast and eventually towards the Rockies and the Plains in the 16 to 20 day.

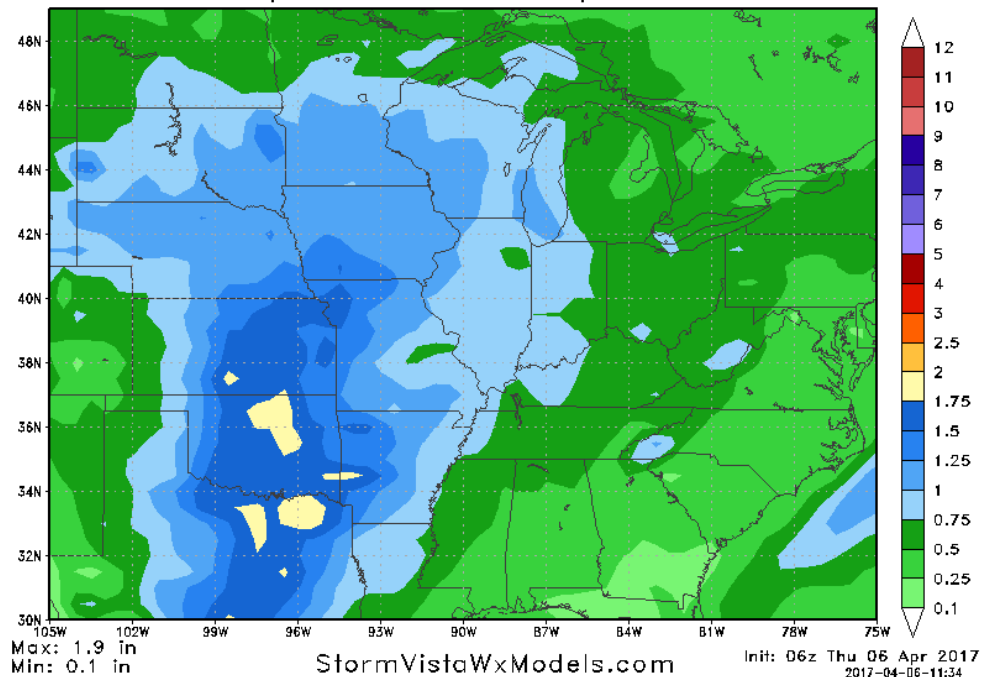
120 Hour Total Precipitation (in) GFS-MAXRES  
 Valid: 00z Sun 16 Apr 2017 - 00z Fri 21 Apr 2017 Hour: 246 - 360



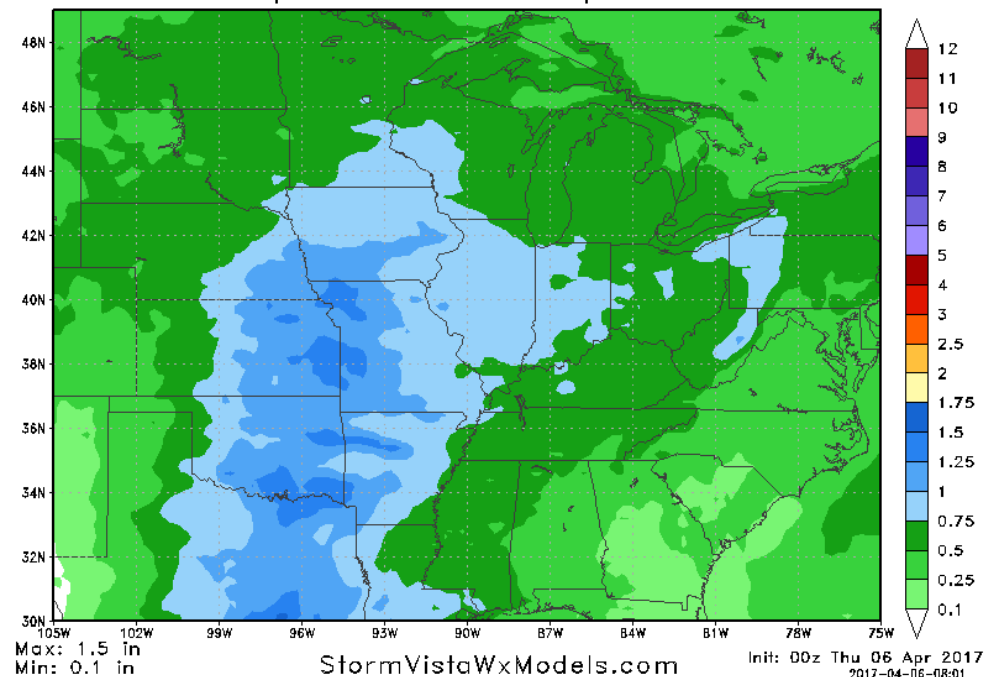
This image is from the operational regular GFS model from early Thursday morning. It shows a huge area of heavy rain between 2-7"/ 50-175mm over the heart of the WCB along with areas of significant rain across the central and lower Plains and the Delta regions. **This solution is probably extreme.**

indeed looking at at the GFS and the European ensembles we see a wet pattern but nothing quite as extreme as what the operational or regular GFS model is showing for the 11 to 15 day. That being said we do believe that the ensembles are still underplaying how what this pattern may become in the 11 to 15 day.

120 Hour Total Precipitation (in)  
Valid: 06z Sun 16 Apr 2017 - 06z Fri 21 Apr 2017  
GFS-ENS-MAXRES  
Hour: 240 - 360



120 Hour Total Precipitation (in)  
Valid: 00z Sun 16 Apr 2017 - 00z Fri 21 Apr 2017  
ECMWF-EPS-MAXRES  
Hour: 240 - 360



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