

WEDNESDAY FINAL REPORT US GRAIN WEATHER

7/19/17 OVERVIEW

Another up and down day in the world of weather models and the grains because of the midday GFS model which essentially did the same sort of thing it did on Tuesday. If you recall the models showed one solution on early Tuesday morning then did a complete reversal and Tuesday afternoon. We saw the same sort of thing again today. The GFS model this morning had very little rain over any portion of Northeast Iowa over the next five days but the afternoon run at a vastly different solution. The Wednesday afternoon Canadian European model do have some moderate rains -- 1 to 2"/ 25-50mm- over the next two or three days getting into the northeast 25% of Iowa and we think this solution a very reasonable..

Meanwhile the heat means quite impressive over most of Iowa where it does not rain and that will also be the case for much of central and east Nebraska ...northern half of Missouri ...and central and southern Illinois. The data still shows that the heat will break on Sunday night or Monday as the pattern begins the change.

In the 6-10d there are areas of moderate rain across much of the Midwest including the WCB. The rainfall amounts showing up in the models on Wednesday afternoon are not that impressive but there are lot better than nothing and these rainfall amounts may increase as we get closer to the last week of July.

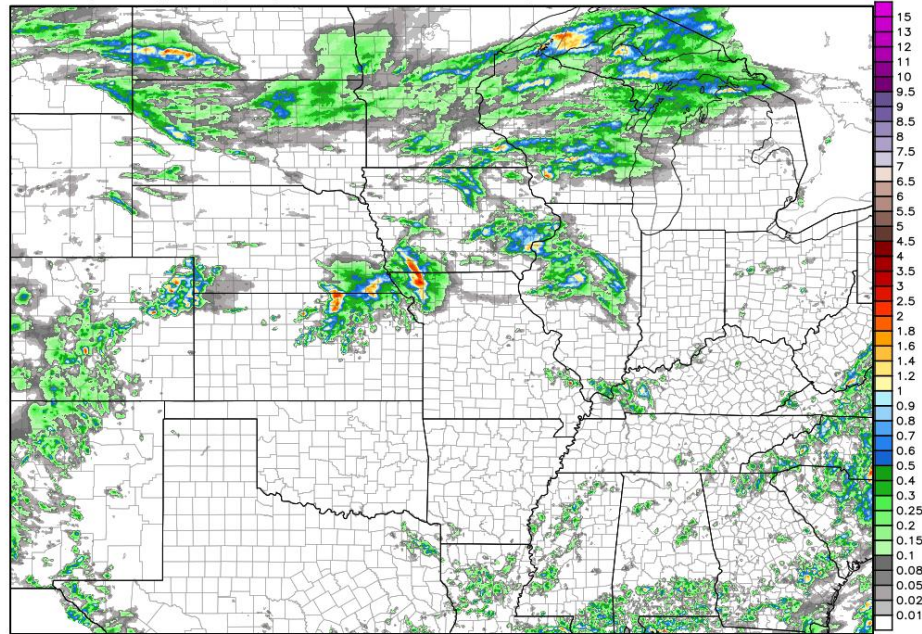
While there are no immediate heat threats for the first half of August I am worried that the heat dome is still out there over the Rockies and it COULD make another run east. In addition a return to the pattern that we saw in late MAY

and JUNE is still a rather dry one for the WCB and the Plains and that may be the issue that a lot of soybean traders may be overlooking.

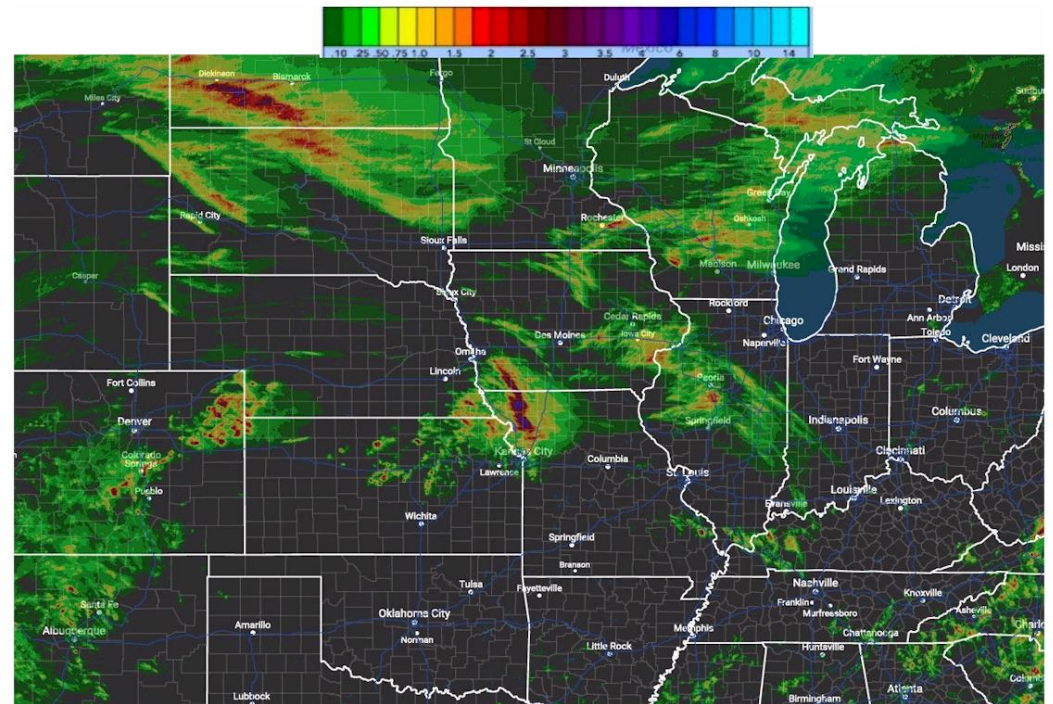
FAST LOADING RADAR

RAINFALL LAST 24 HRS 0700cdt 17 JULY- 0700cdt 19 JULY

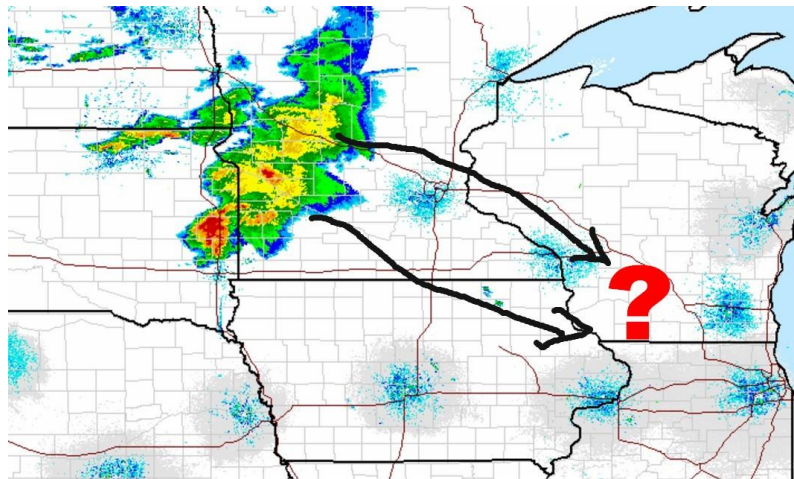
NWS Precipitation Analysis 4-km HRAP Grid -- 1-day Total Accumulation
Total Precipitation [inches] 1 days 12Z18JUL2017 --> through --> 12Z19JUL2017 Domain Max: 3.0 in.



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



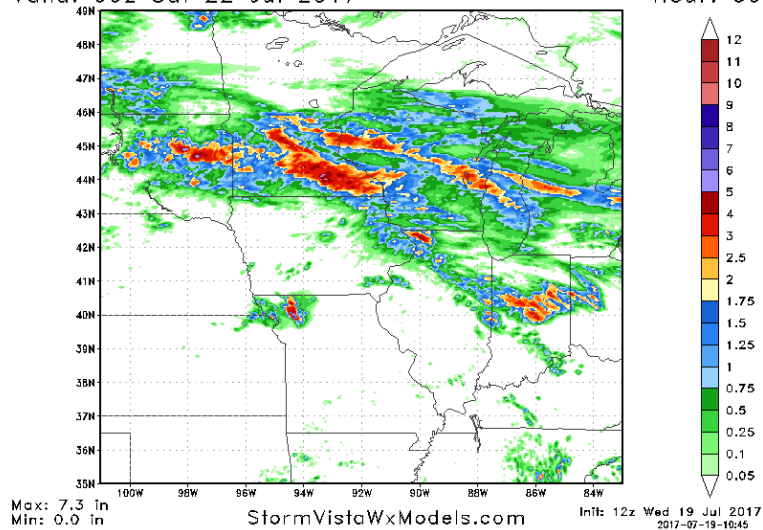
In the short term there is a strong cluster big thunderstorms over western and southwestern Missouri which will be tracking this evening as southeast direction. Some other models have the storms clipped in the northeast corner of Iowa but other models are showing storms just bypassing the far northeast corner of Iowa and moving into Southern Wisconsin during the evening hours. This is one of these situations were simply going to have to watch the system by radar



**WHERE will this MCS (T-storm cluster)
TRACK this evening? Will it clip ne IA?**

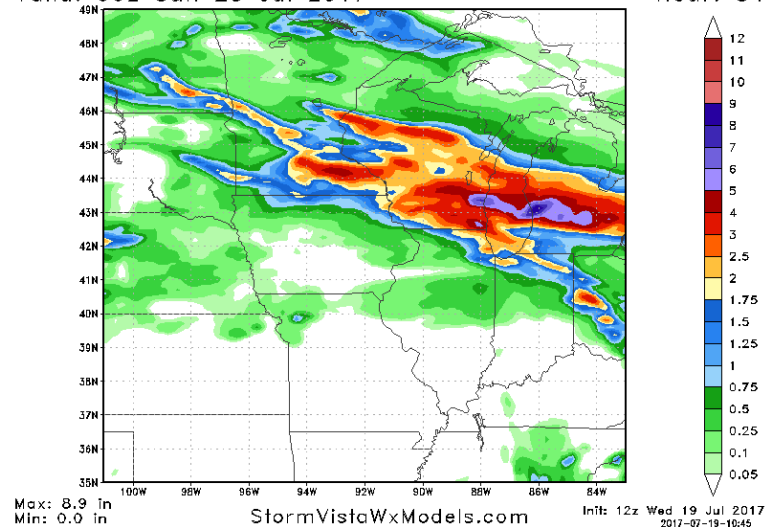
**4KM HI RES WRF NAM MODEL TOTAL
RAINFALL NEXT 60 HRS -- to 7pm FRI**

Accumulated QPF (in)
Valid: 00z Sat 22 Jul 2017

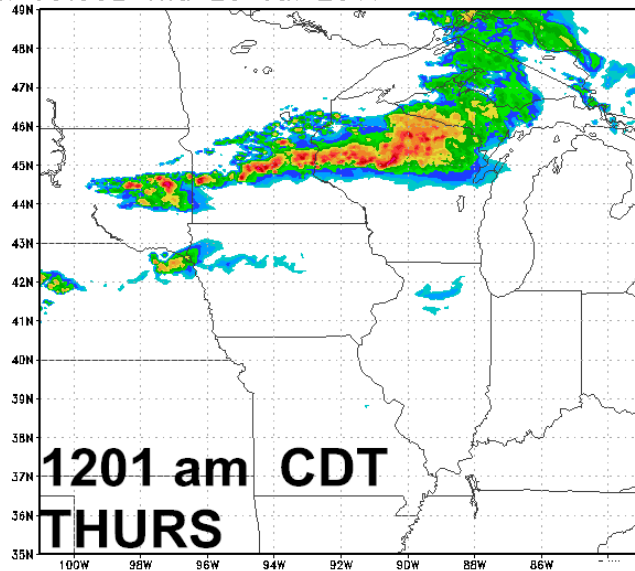


**12km NAM MODEL (wet bias) TOTAL
RAINFALL NEXT 84 HRS -- to 7pm SAT**

Accumulated QPF (in)
Valid: 00z Sun 23 Jul 2017



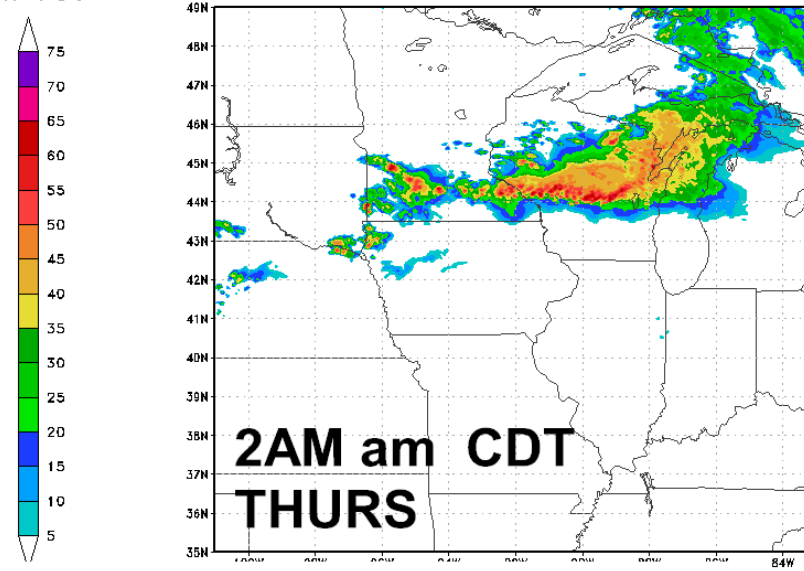
Composite Reflectivity
Valid: 05:00z Thu 20 Jul 2017



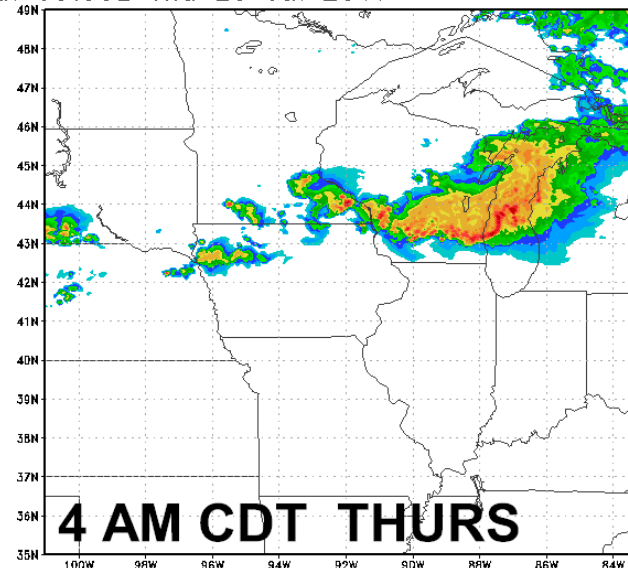
GRADS: COLA/IGES

StormVistaWxModels.com

HRRR-15MIN Composite Reflectivity
Valid: 07:00z Thu 20 Jul 2017



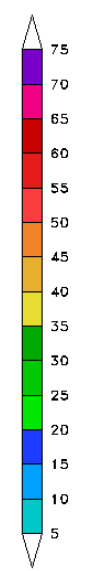
Composite Reflectivity
Valid: 09:00z Thu 20 Jul 2017



StormVistaWxModels.com

Init: 16z Wed 19 Jul 2017

HRRR-15MIN
Min: 900



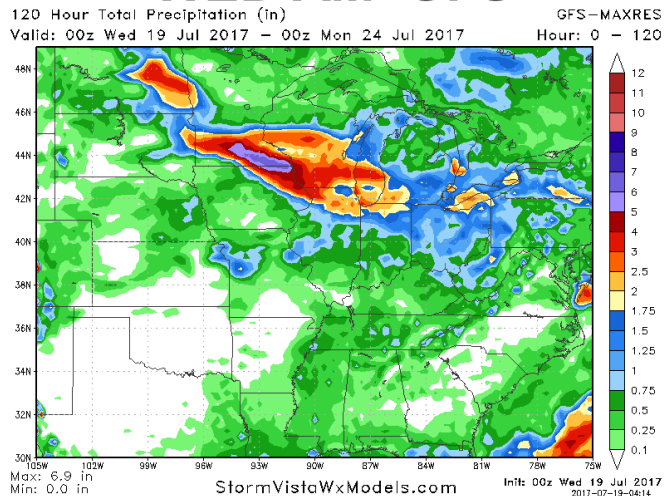
HRRR-15MIN
Min: 1020
Init: 16z Wed 19 Jul 2017
2017-07-19-13:16

SHORT RANGE Models indicate that MCS/ Derecho over southern MN shifts stays JUST to the north of MN/ IA/ WI border. BUT it COULD shift south into NE IA

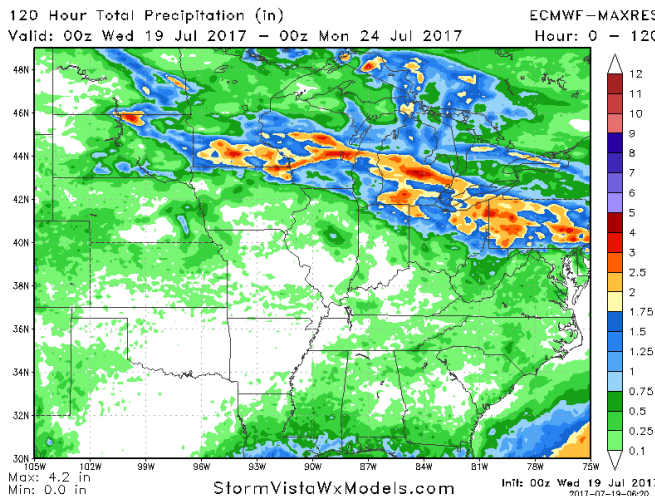
THIS WEEK

Here are the early WED morning weather models and as you can see most of the weather models were keeping the BIG or significant rain out of 90% of Iowa --and centered over southeastern Minnesota ...much of central and southern Wisconsin ...and into the far northern 25% of Illinois and Indiana and most of Michigan and northern Ohio.

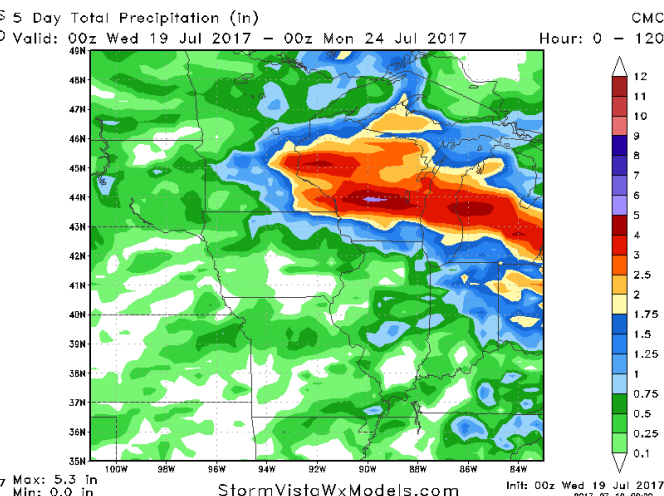
WED AM GFS



WED AM EURO



WED AM CAND

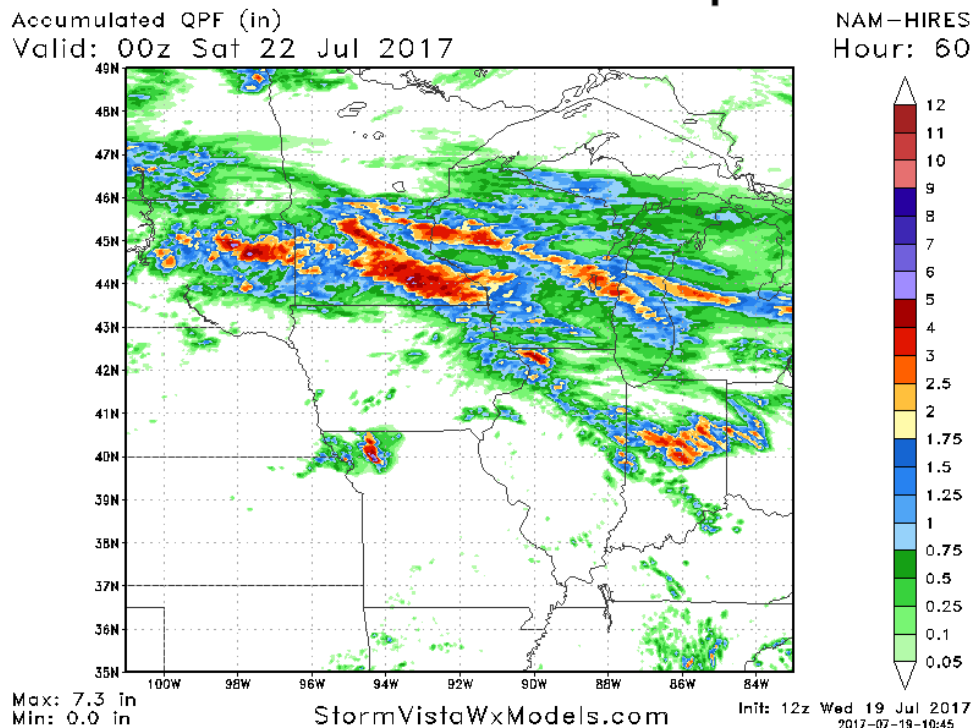


MIDDAY MODELS

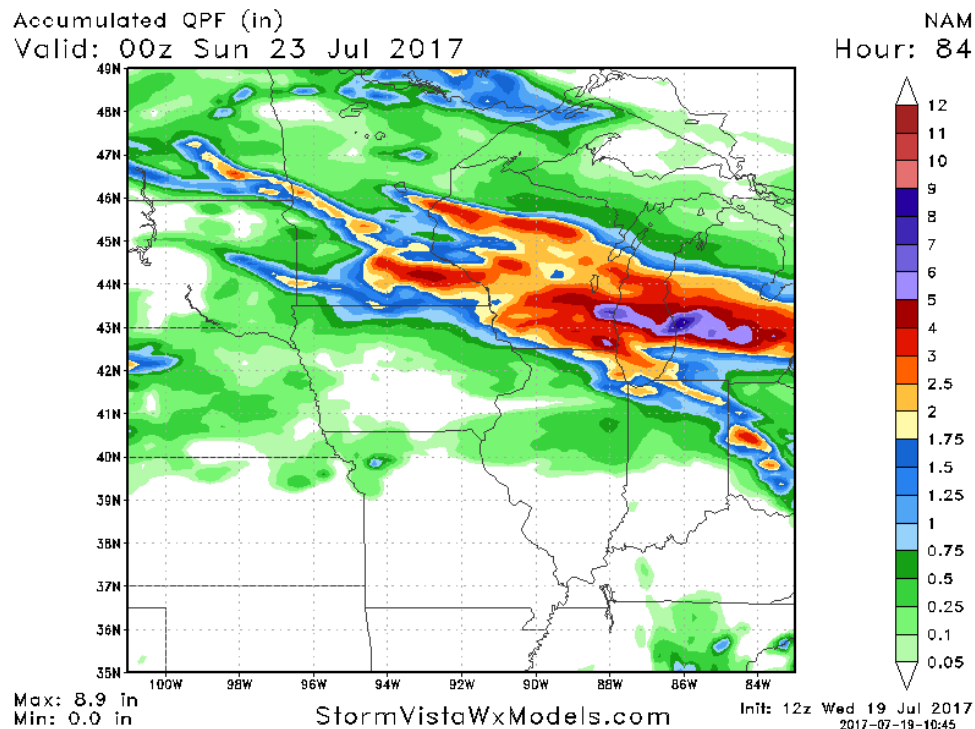
The SHORT ranges which take us into Friday and or Saturday – depending on which model you are using – keep the heavy rains over southern MN into southern WI and MOST of the rains are stay out of IA. All three of the primary short range models show no significant rain over any portion of Iowa through Friday 7:00 PM and only light rain under 1.25"/ 32 mm over the far northern counties near the Minnesota border by Saturday 7:00 PM. There IS significant rains of 1-4"/ 25-100mm across all of the southern third of Minnesota the

southern half of Wisconsin and Michigan. Light rains extend into far Northern Illinois with most of central and Southern Illinois being completely dry and that is also the case for Indiana

4KM HI RES WRF NAM MODEL TOTAL RAINFALL NEXT 60 HRS -- to 7pm FRI



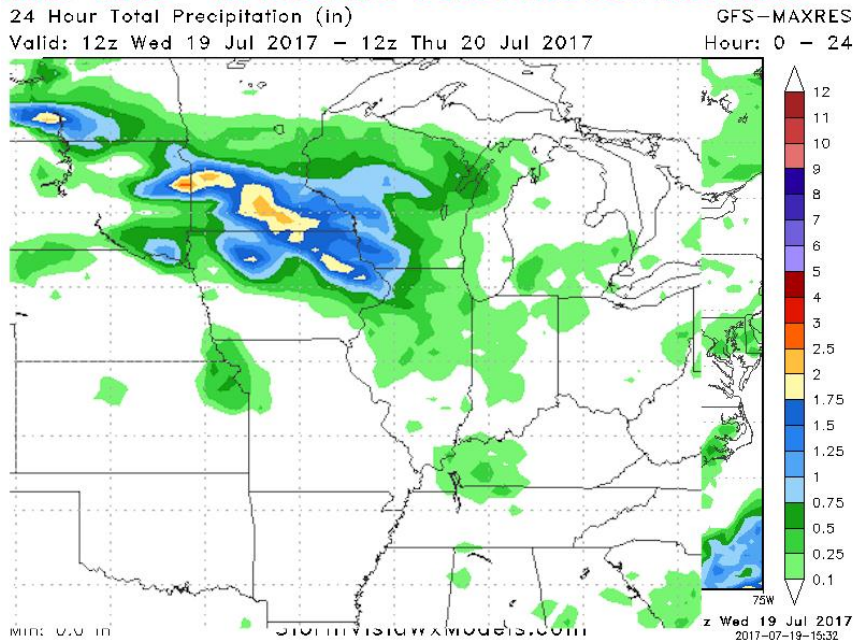
12km NAM MODEL (wet bias) TOTAL RAINFALL NEXT 84 HRS -- to 7pm SAT



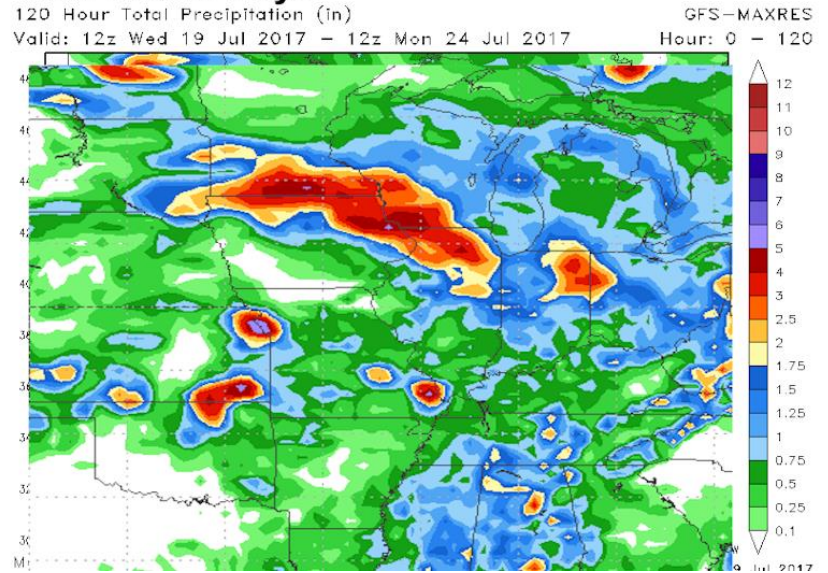
However the new wed midday 12Z operational or regular GFS models has come out and it has turned dramatically wetter over the next 5 days over the northeast third of Iowa. I suppose this is predictable for the operational GFS to do this since the model is known for its massive inconsistency. The last few runs of the GFS model have shown the entire northern third of Iowa to be essentially dry for the next five days.

Making this flip flop even more laughable or absurd is that the GFS model over the next 24 hours drops 1-2"/ 25-50mm rain into northeastern Iowa by 7:00 AM Thursday morning. As I showed above none of the short range models show anything like this so the entire operational GFS model is showing a solution which has no support from any of the data either for Thursday morning or out to Sunday morning.

12z WED GFS -- LOL.-- has 1-2" rains in ne third of IA by 7am THURS !! No short model has this - in fact NO other model has this



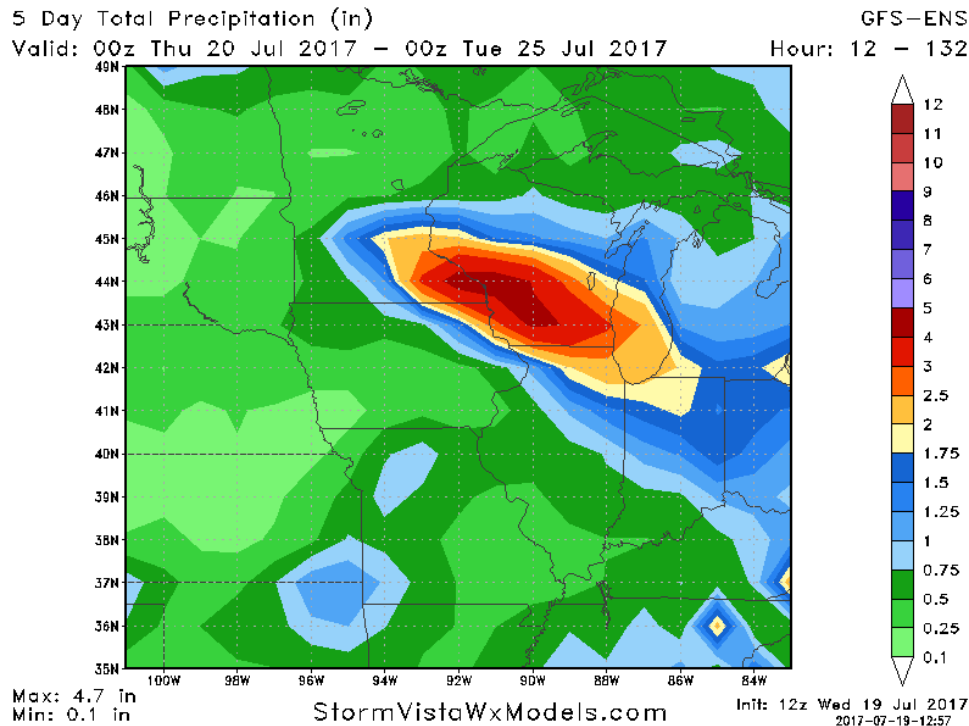
NEW 12z WED GFS
a total FLIP flop from previous GFS runs-- trade will react BUT KEY is too see if other models show this much rain in ne 1/3 of IA over next 5 days



The GFS ensemble does NOT support the operational GFS -- also a repeat of what we saw yesterday -- and keeps the heaviest rains out of 85% of Iowa with only the northern 25% seeing 1-3" / 25-75mm rain. The Canadian at midday/ 12z also kept the best rains well to the north of the MN / IA ... WI / IA state line.

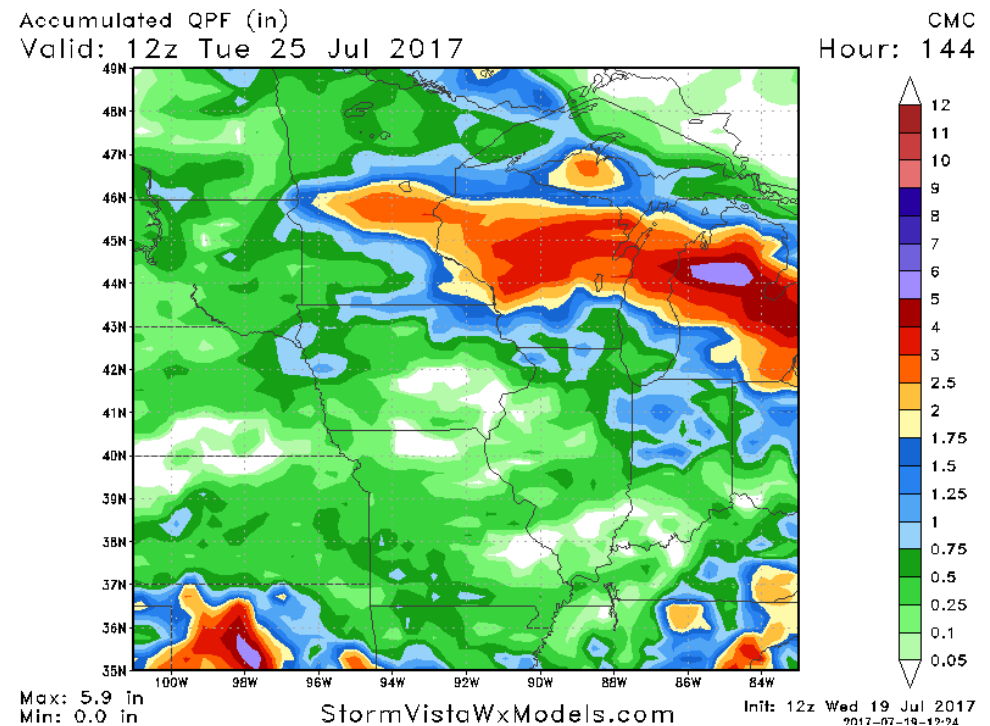
GFS ENSEMBLE TO D5/ JUL24

Like we saw Midday Tue... 12z WED GFS which has 2-4" over ne half of IA has NO support from GFS ensemble. This is Often means regular GFS= BOGUS



CAN MODEL 7AM JUL25

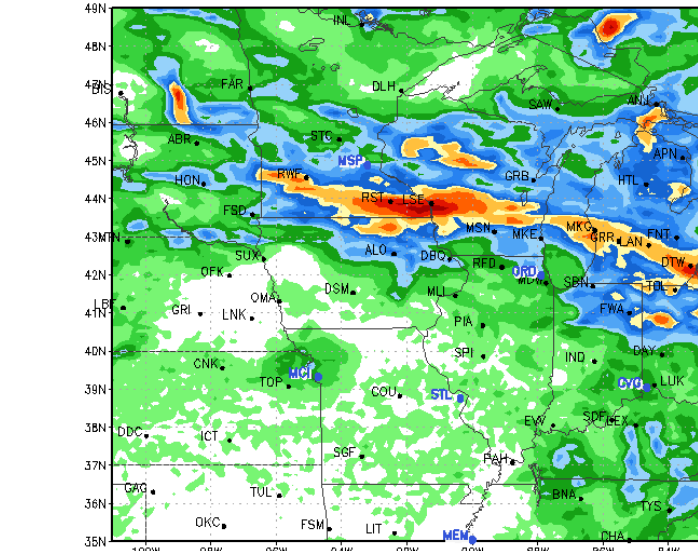
Like we saw Midday Tue... 12z CAN Model has NO significant rain over N iowa. This model has NOT flipped flopped



Finally here is the Midday / 12Z WED European Model which is a little wetter over the northeast 25% of Iowa. Note that most of these rains fall over the next 3 days with amounts of 1 -2" / 25-50mm... and 2-4" / 50-100mm over southern MN and southern WI

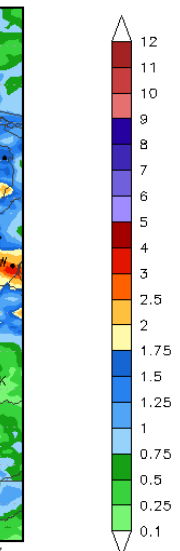
12z EURO has SOME rain in ne 25% of IA of-1 to 2" and most of that falls over next 2 days .. 1-4" in south MN most of WI Wxrisk thinks this is reasonable

120 Hour Total Precipitation (in)
Valid: 12z Wed 19 Jul 2017 - 12z Mon 24 Jul 2017



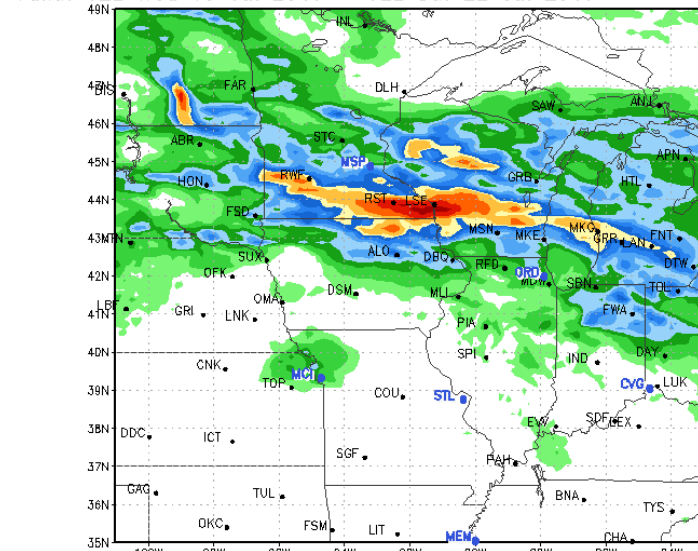
Max: 4.6 in
Min: 0.0 in
StormVistaWxModels.com

ECMWF-MAXRES
Hour: 0 - 120



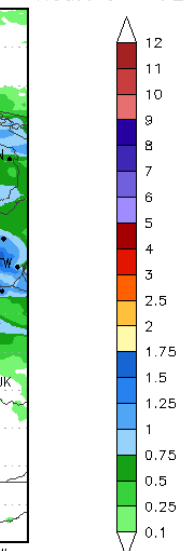
Init: 12z Wed 19 Jul 2017
2017-07-19-18:20

72 Hour Total Precipitation (in)
Valid: 12z Wed 19 Jul 2017 - 12z Sat 22 Jul 2017



Max: 4.6 in
Min: 0.0 in
StormVistaWxModels.com

ECMWF-MAXRES
Hour: 0 - 72

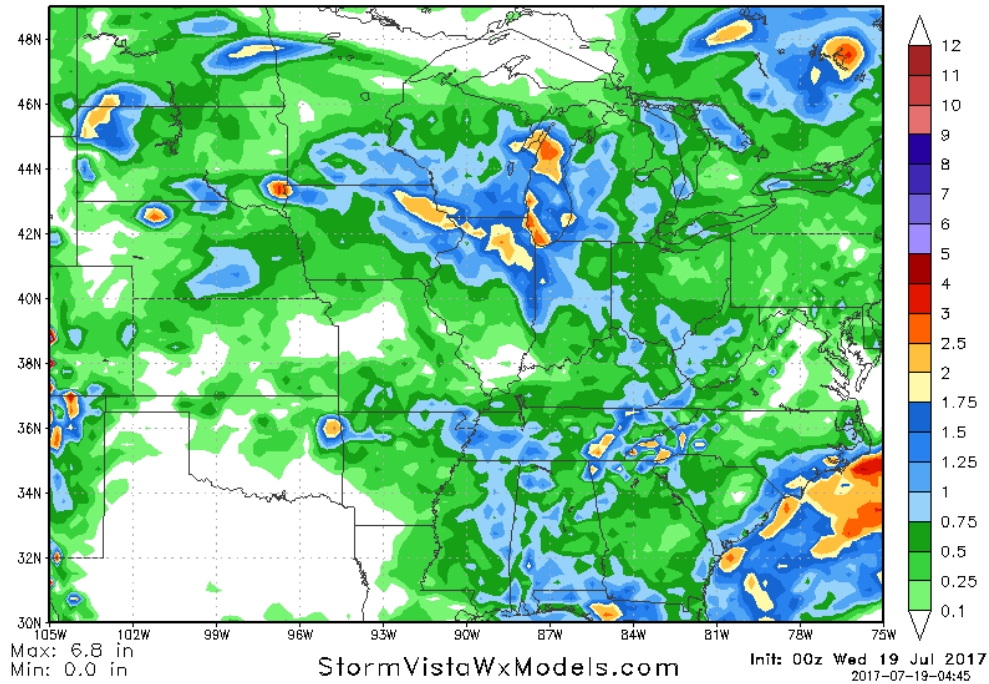


Init: 12z Wed 19 Jul 2017
2017-07-19-18:06

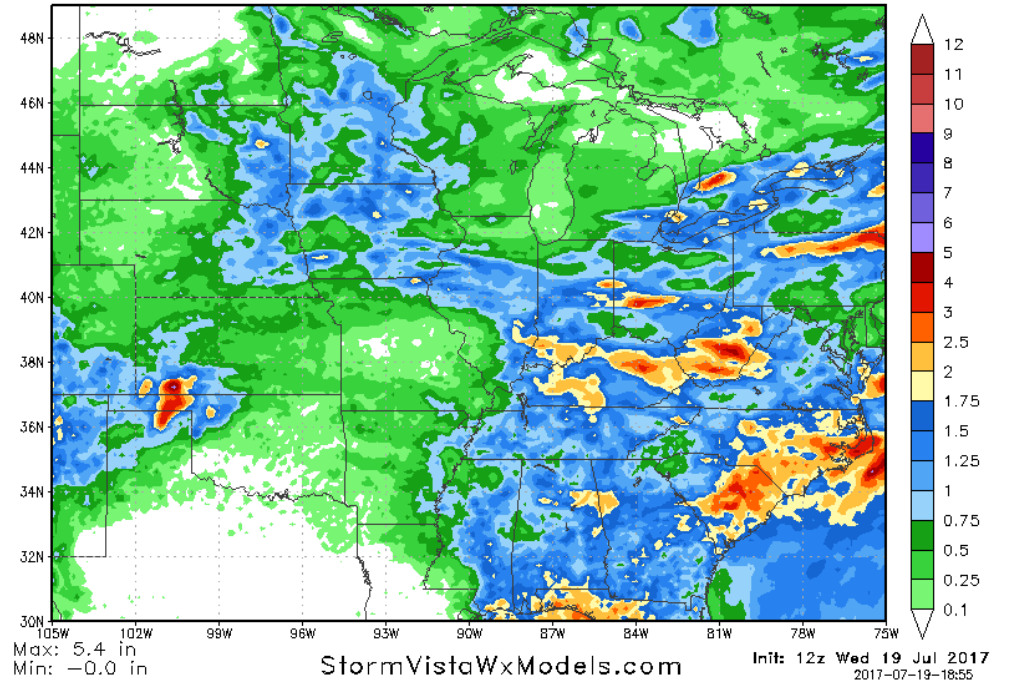
WEEK 2 / 6-10 DAY

All three models show the return of moderate rain to much of the Midwest in the 6-10 DAY. The European has decent rains over Eastern Iowa Southern Wisconsin the northern half of Illinois Northern Indiana and much of Michigan. The GFS is similar to the coverage is a little stronger over Iowa and Minnesota but with lower rainfall amounts. Rainfall amounts are not particularly impressive but they are better than seeing no rain all. Also note that the European model significantly wetter over the Tennessee Valley as well as Ohio and Kentucky and much of the southeastern states.

120 Hour Total Precipitation (in)
 Valid: 00z Mon 24 Jul 2017 - 00z Sat 29 Jul 2017
 GFS-MAXRES Hour: 120 - 240

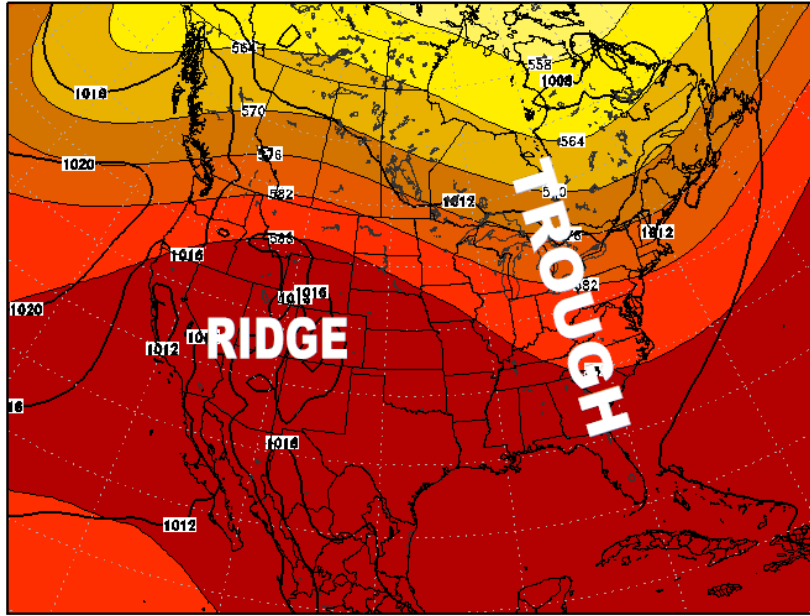


120 Hour Total Precipitation (in)
 Valid: 12z Mon 24 Jul 2017 - 12z Sat 29 Jul 2017
 ECMWF-MAXRES Hour: 120 - 240



By August 1 the heat dome is back over the southwestern states the mean trough is over the Midwest. This is the pattern we saw MAY and JUNE that produced a rather dry pattern for the Plains and the WCB -although temperatures were either near normal or somewhat below normal. This appears in the seasonal pattern which means that all this august could remain quite dry relative to normal over portions of the Plains and the WCB. In addition as long as we have that heat dome lingering out over the Rockies and the southwestern states it will have to be watched to see if it decides to come east again in the middle of August.

500 mb Height & MSLP
Valid: 12z Sat 29 Jul 2017

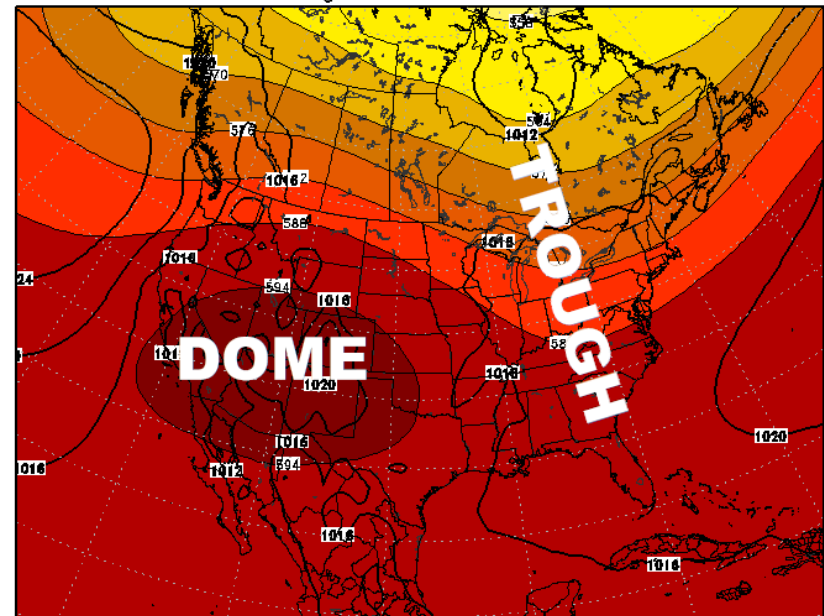


Max: 594.2 dm
Min: 538.3 dm

StormVistaWxModels.com

Init: 12z Wed 19 Jul 2017
2017-07-19-15:40

ECMWF-EPS 500 mb Height & MSLP
Hour: 240 Valid: 06z Thu 03 Aug 2017



Max: 596.0 dm
Min: 543.3 dm

StormVistaWxModels.com

Init: 12z Wed 19 Jul 2017
2017-07-19-15:59

DT wxrisk.com OFFICE 804 715 8330 CELL 804 307 8070