

# MONDAY US / SOUTH AMERICA GRAIN WEATHER

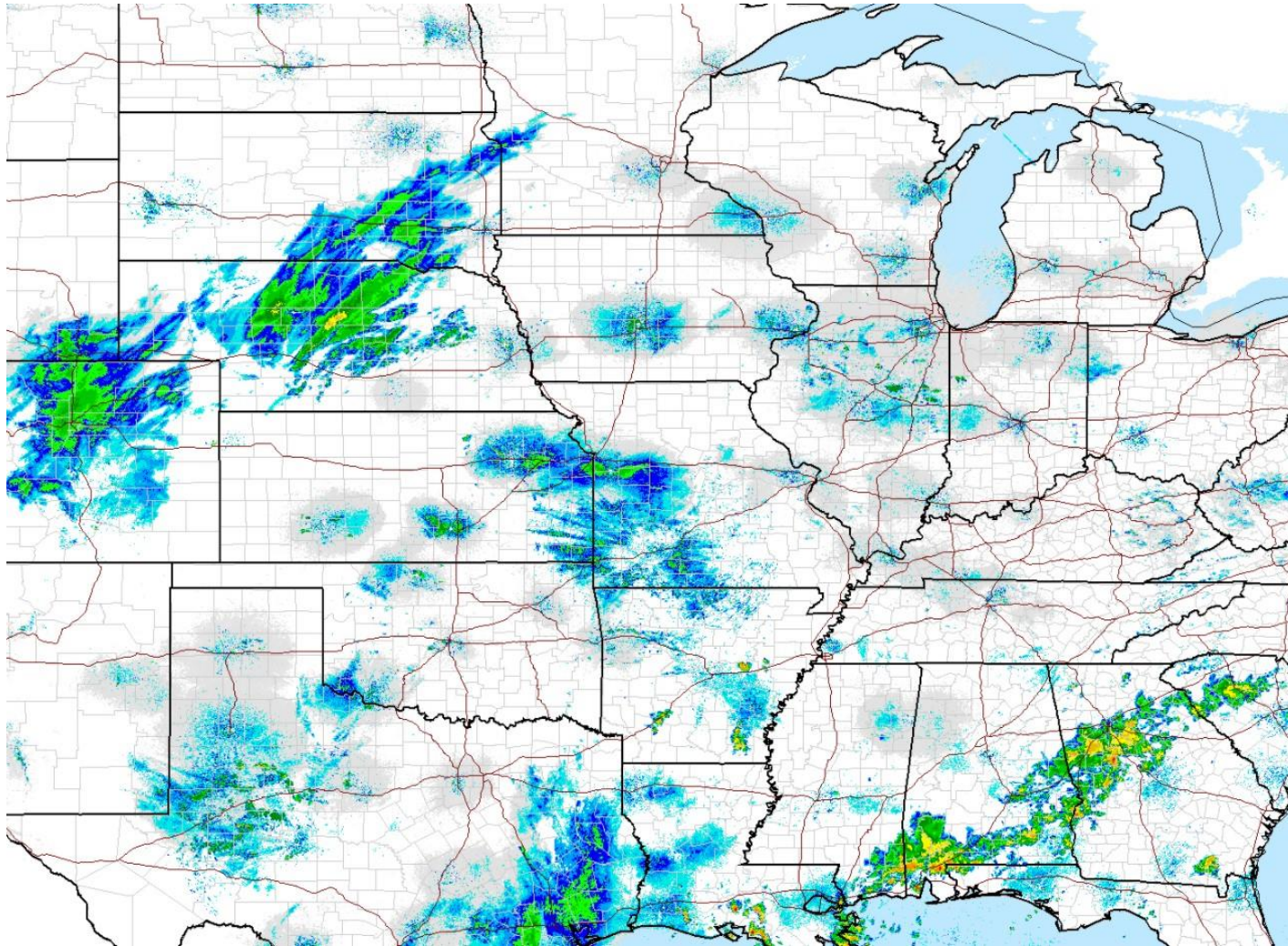
**10/8/17 OVERVIEW**

## SUMMARY

The never ending tropical season of 2017 continues but there are important changes going on over North America itself. Last week the models indicate a major trough is going to form over the western third of the country and a major ridge is going to form over the eastern third of the country. That has not changed as of Sunday night Monday morning. All the weather models show a massive trough quite impressive for mid September developing over the western third of the country. This trough will bring below much below normal temperatures to the West Coast the Pacific Northwest Southern Canada and most of the Rockies. At the surface the cold front will try and push through the plains states but the powerful ridge over the eastern third of the country will force this front to crawl very slowly eastward. This will allow for significant rain developing mostly in the 6-10D. Complicating this will be the arrival of another category four hurricane .... This one called Irma which will be in the Bahamas by this weekend and moving through the Bahamas early next week. This looks like a East Coast threat. Finally the model data is pretty strong that a major trough is going to move through the Midwest by the end of the month and possibly bring about the first frost for some areas

# MONDAY AM RADAR

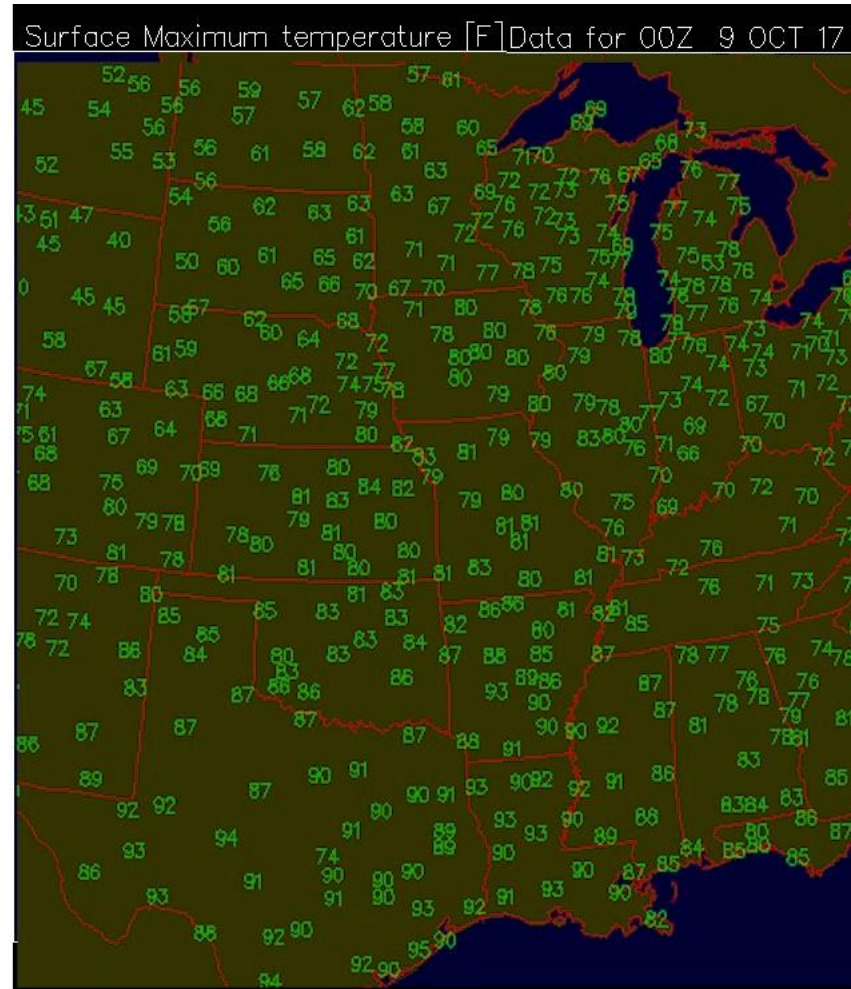
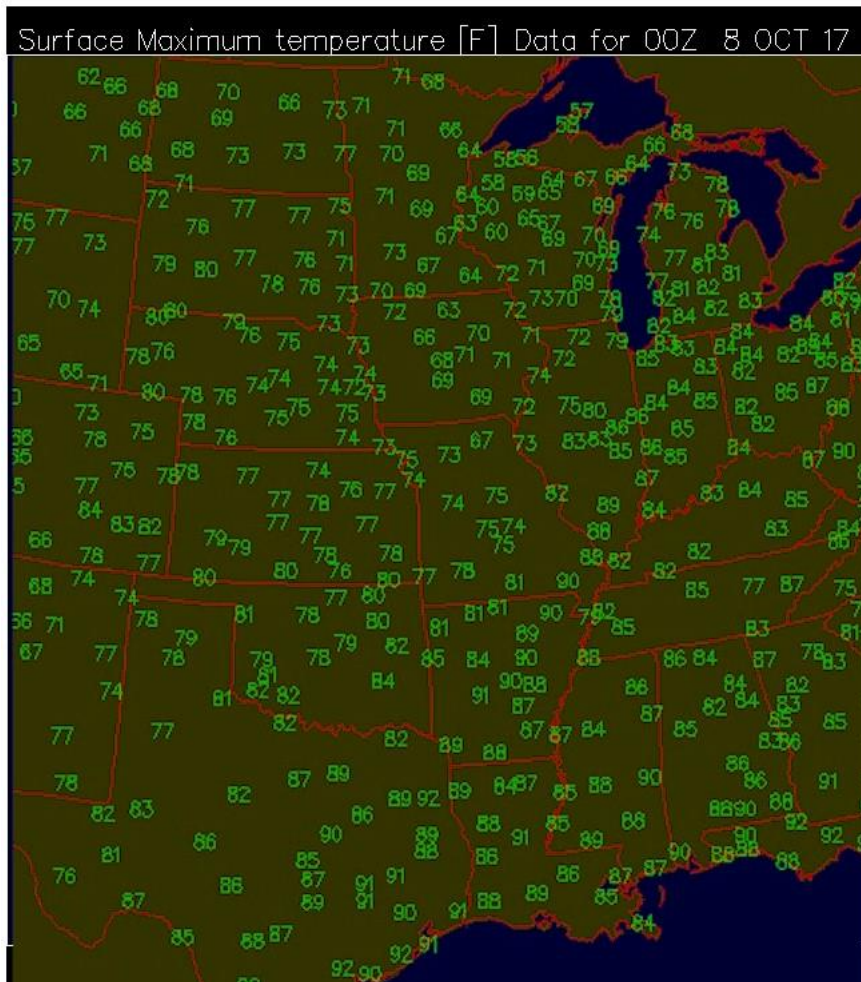
Moderate rains over central NEB into southeast SD.. snow over central COL. Storms over southern AL and northwest GA





# MAX TEMPS 8 OCTOBER and 7 OCTOBER

Max temperatures on Saturday and Sunday were above Normal in all areas of the Plains .. Midwest... and Delta regions . **Normal max temperatures for OCT 8** show temps should be in the Mid - Upper 50s over MN WI... 60s over ND SD NEB eastern MT/ WY/ COL IA ILL IND OH KY... Low-Mid 70s over TN MS AL GA ARL MO KS OK western half of TX



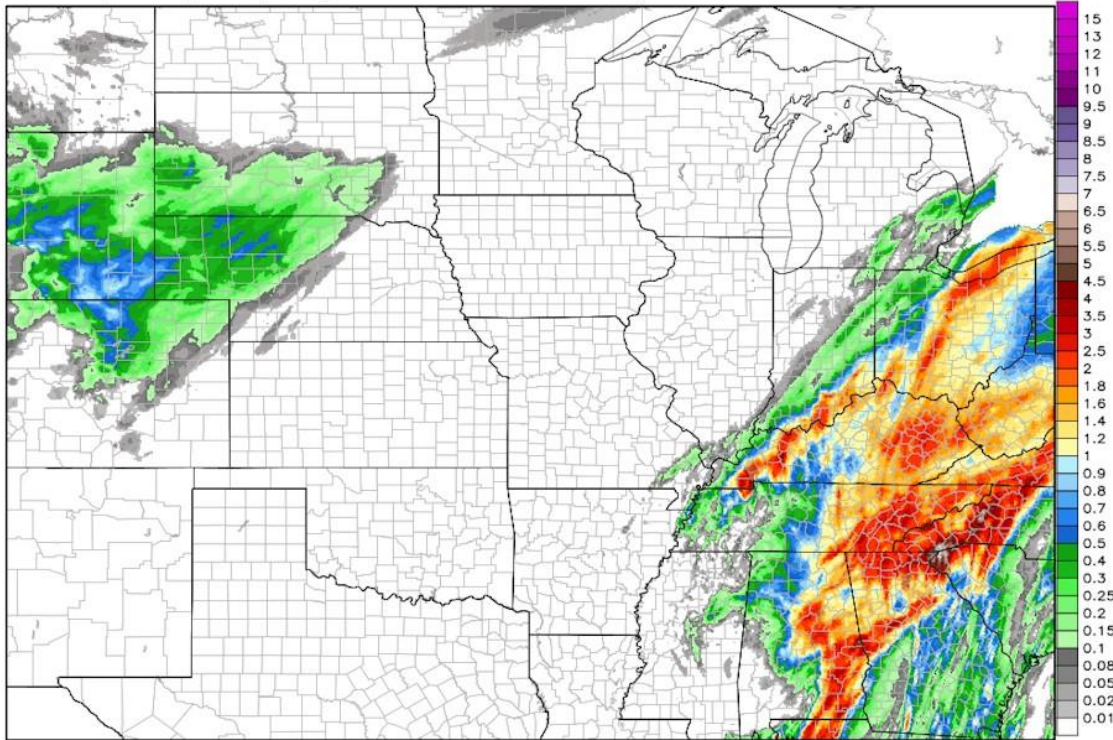


**RAINFALL PAST 24 HRS ending 0700 cdt 10/8/17      48 HR RAINFALL 10/7/17 - 10/9/17 ending 0700 cdt**

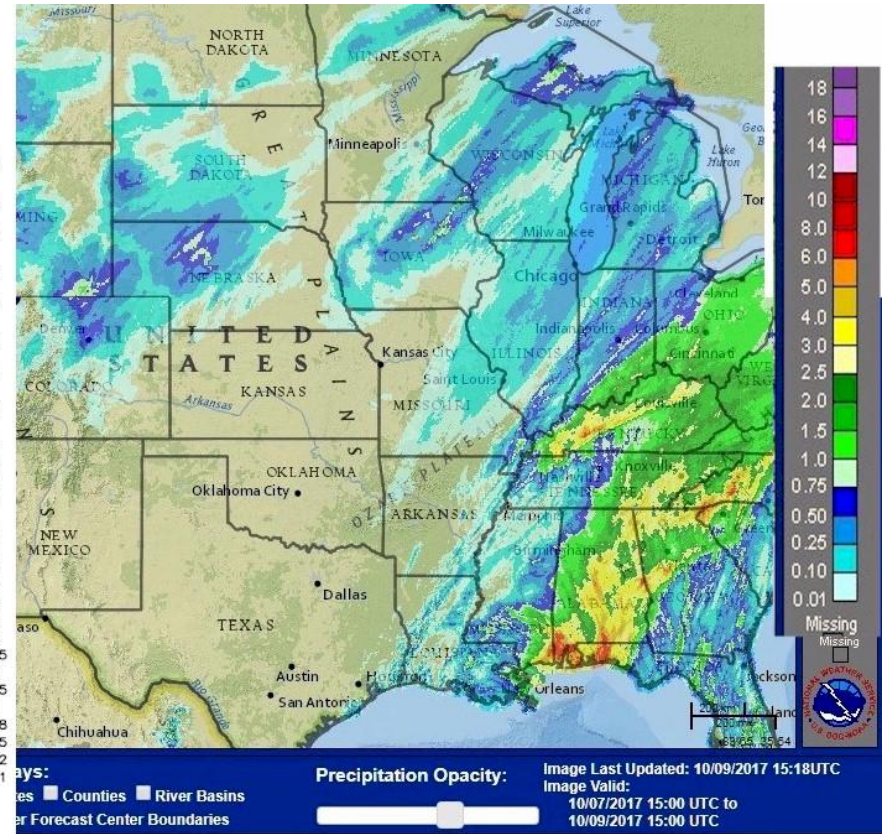
Rainfall Sunday into Monday saw a band of moderate precip of 0.25-1.0"/ 6-25mm over northeast COL... eastern WY into western half of NEB and far southwest SD. Some of this precip fell as SNOW. Meanwhile the remains of NATE Brought 1-3"/ 25-75mm rains to far southeast INF mist fo central and eastern OH... and 1.5to 6.0"/ 38-140mm rains to 70% of eastern AL northern half of GA eastern KY WVA western 25% of NC reas were dry.

**image on the RIGHT is RAINFALL PAST 2 DAYS - from Friday 0700 cdt 10/7/17 - to Monday 0700 cdt 10/9/17.**

NWS Precipitation Analysis 4-km HRAP Grid -- 1-day Total Accumulation Domain Max: 8.1 in.  
Total Precipitation [inches] 1 days 12Z08OCT2017 --> through --> 12Z09OCT2017

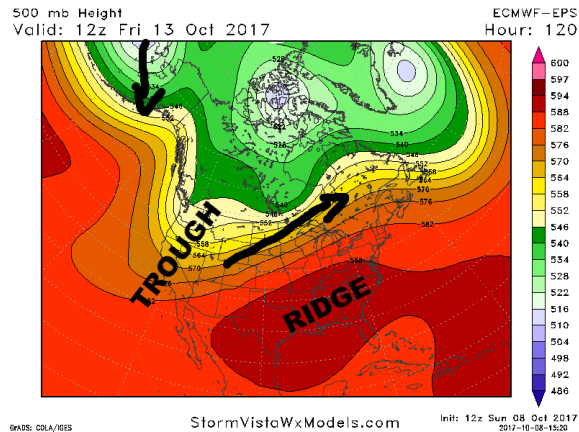


4 km HRAP grid | End of hydrological day at 1200 UTC | <http://water.weather.gov/precip>



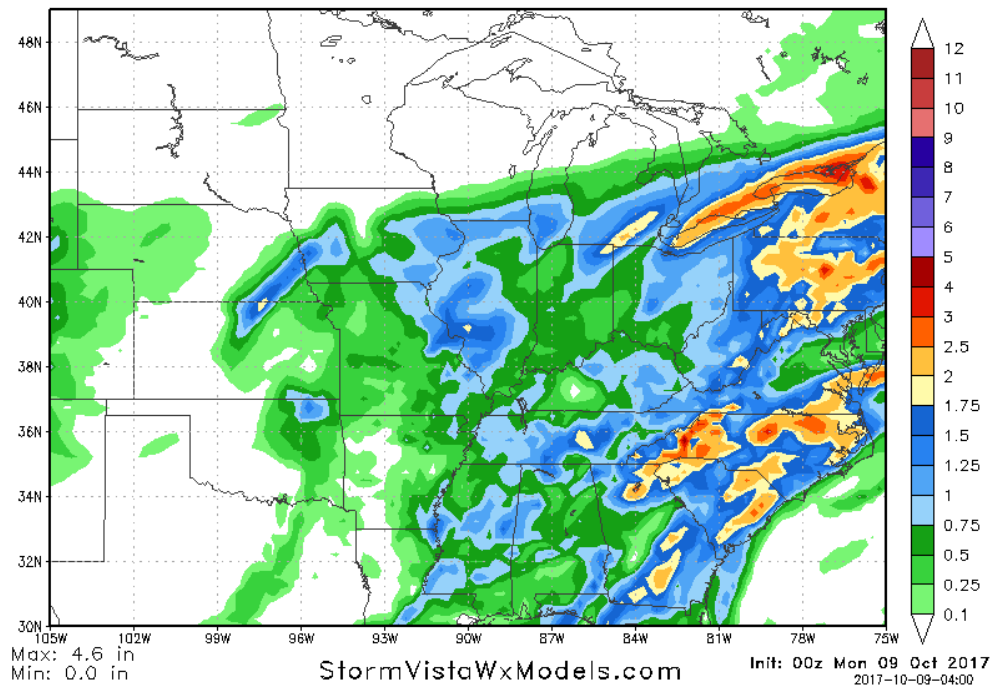
Days:      Precipitation Opacity:      Image Last Updated: 10/09/2017 15:18UTC  
 Counties      River Basins      Image Valid: 10/07/2017 15:00 UTC to 10/09/2017 15:00 UTC  
 Forecast Center Boundaries

# 1-5 DAY

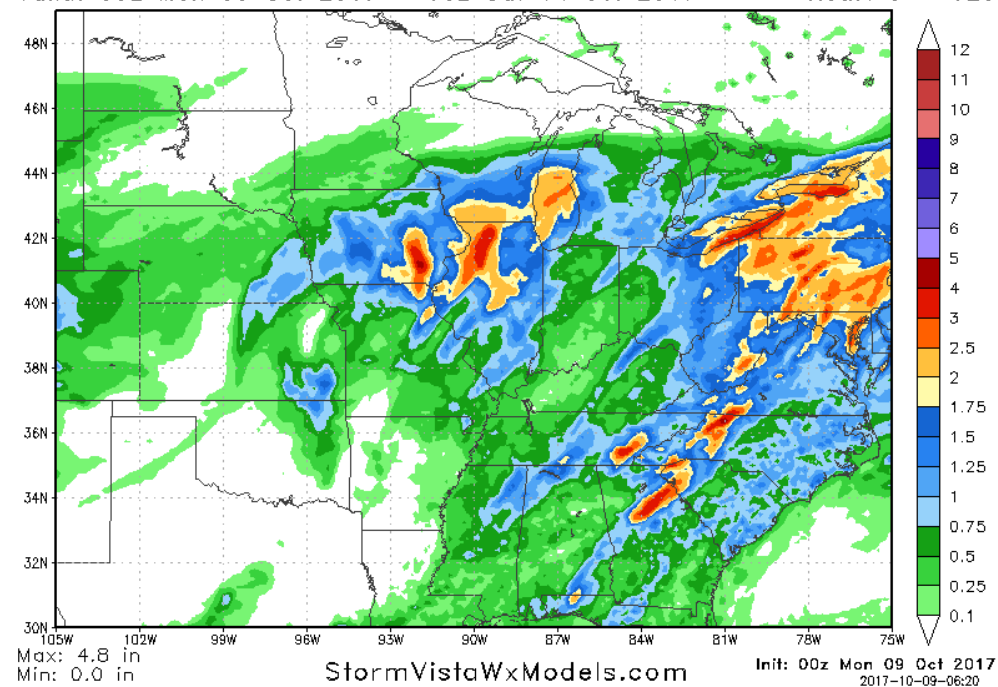


The image on a LEFT shows the overall upper air pattern for next 5 days. There is a deep trough clearly established over the western 25% of the country and a corresponding Ridge that is centered over the Deep South. The interaction between these two features producing a southwest flow which is keep the ball the cold air out of the plains and the Midwest and keep the mean storm track and precipitation areas over the upper Plains and Great Lakes as opposed to the central Plains and the Midwest. The rainfall maps for the next five days are overdone because the rains from the remains of NATE are pretty much over and done with.

120 Hour Total Precipitation (in)  
Valid: 00z Mon 09 Oct 2017 - 00z Sat 14 Oct 2017



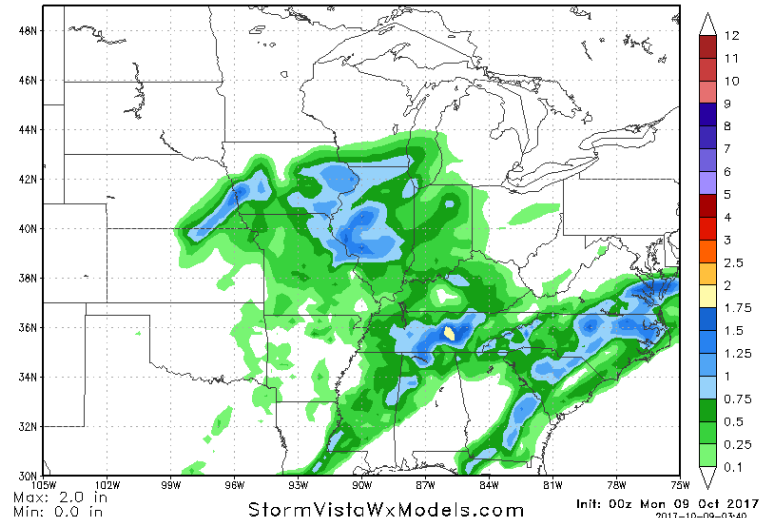
GFS-MAXRES 120 Hour Total Precipitation (in)  
Hour: 0 - 120 Valid: 00z Mon 09 Oct 2017 - 00z Sat 14 Oct 2017



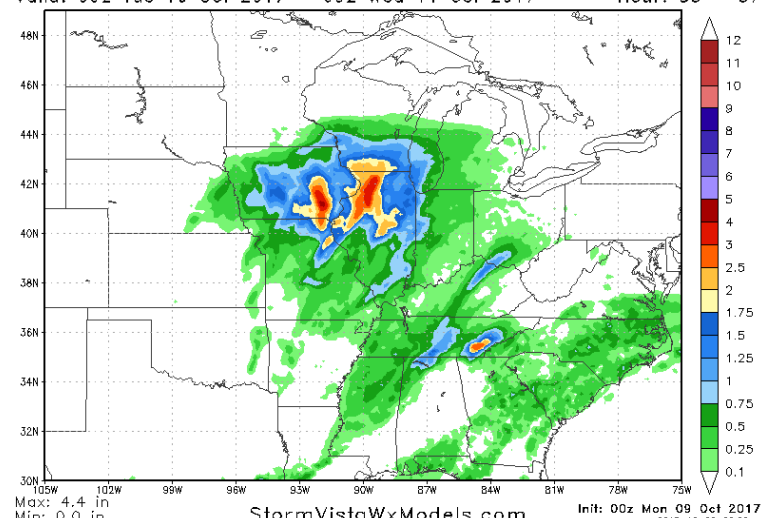


That being said the short for models do show a second area of moderate rain developing Monday night into Tuesday over significant portion of the WCB. This looks to be a general 1-3"/25-75mm rain with 60=70% coverage over central and Eastern Iowa northern Missouri and a significant portion of Illinois. ALSO models show FROST/FREEZE threat for Dakotas Most of MN western NEB eastern COL/ WY/ MT

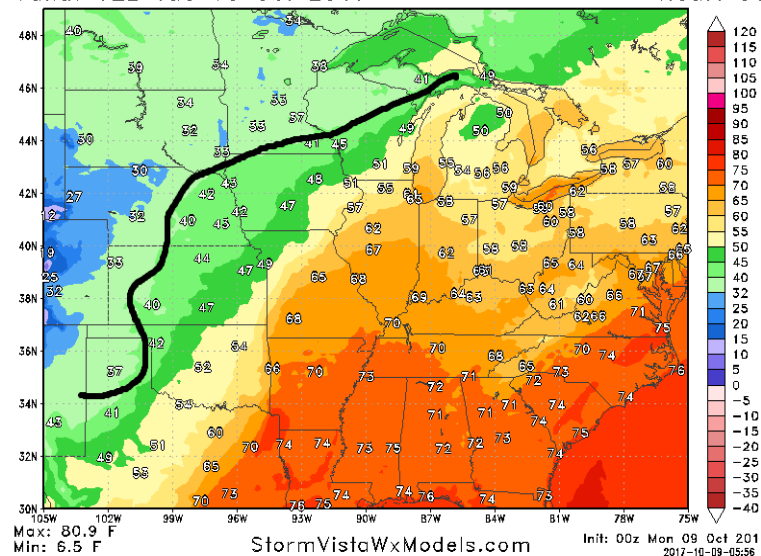
24 Hour Total Precipitation (in)  
Valid: 06z Tue 10 Oct 2017 - 06z Wed 11 Oct 2017



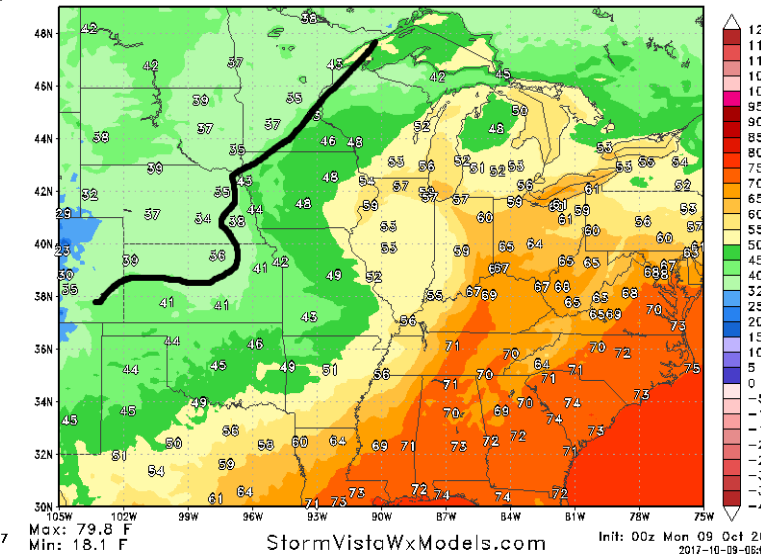
24 Hour Total Precipitation (in)  
Valid: 09z Tue 10 Oct 2017 - 09z Wed 11 Oct 2017



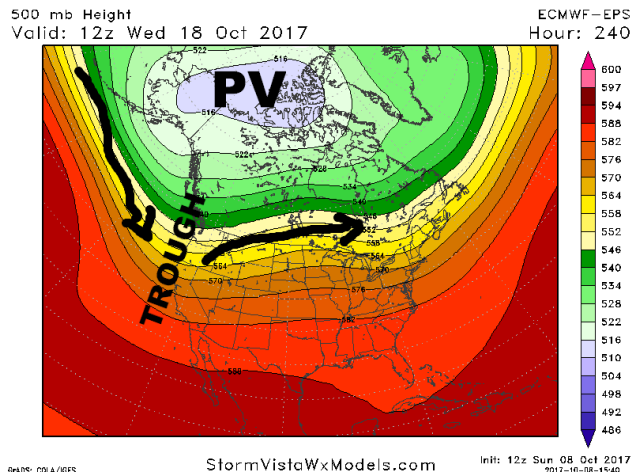
2 m Min Temperature (F)  
Valid: 12z Tue 10 Oct 2017



2 m Min Temperature (F)  
Valid: 12z Wed 11 Oct 2017

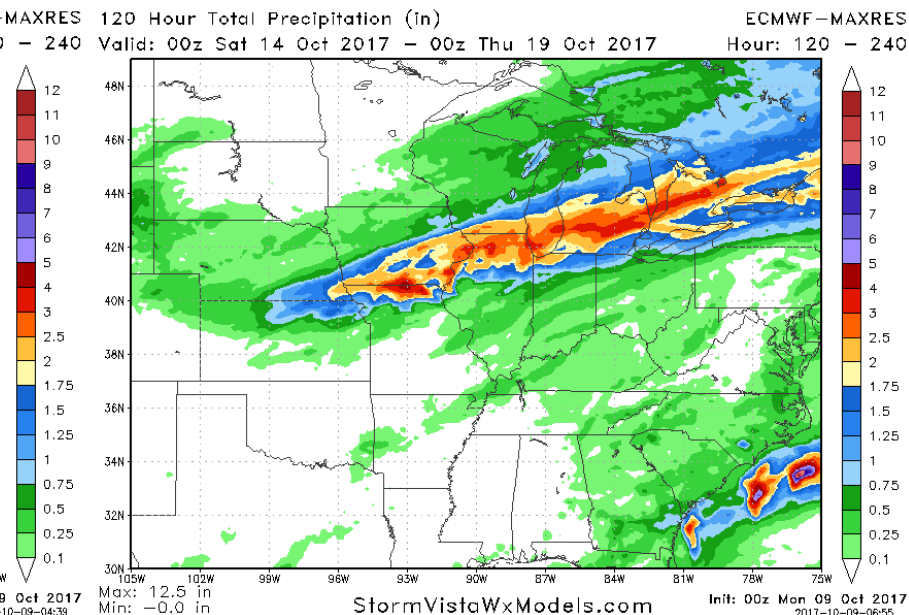
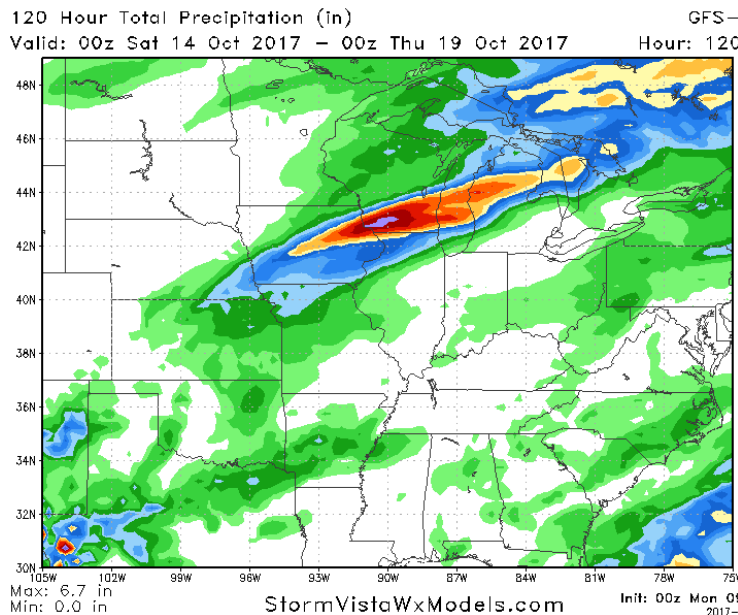


# 6-10 DAY.

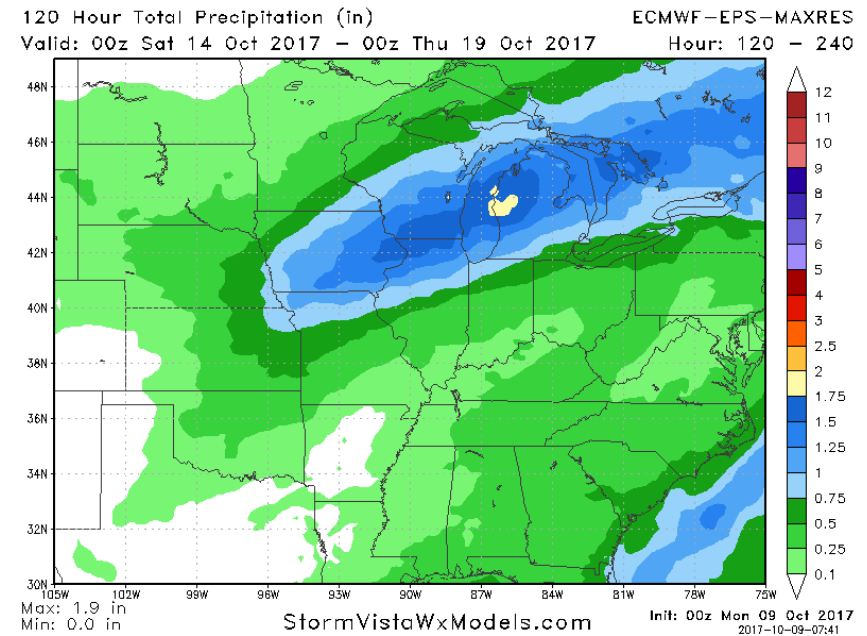
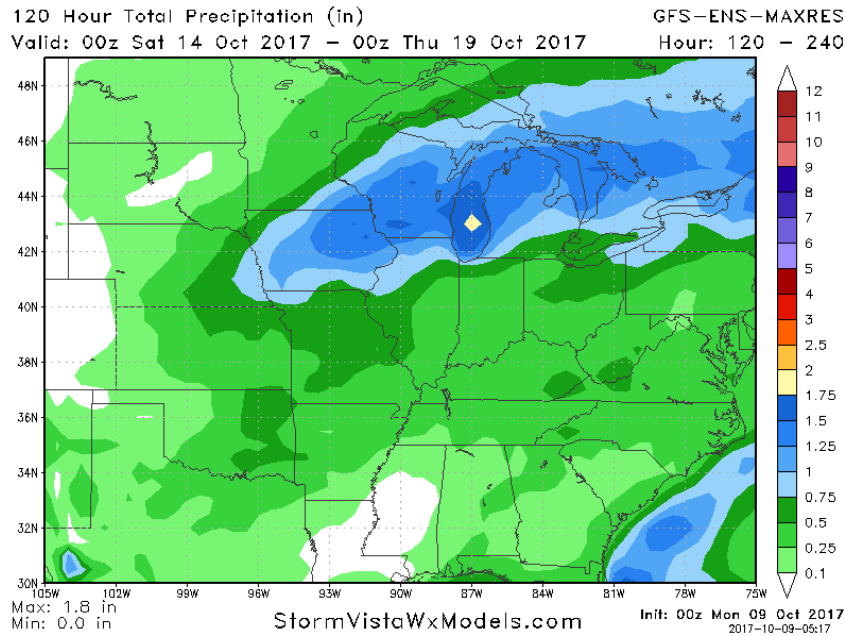


The Jetstream pattern in the 6 to 10 day is unchanged. We see the development of a large PV - polar vortex -over Alaska Northwest Canada. This is going to allow for the buildup of extremely cold air all the next few weeks and that portion of North America. But in the meantime the position of the PV will ensure that the Pacific jet stream is very strong enhanced as the streaks across the Pacific and slams into the west coast of North America. This will establish a deep trough over the West Coast which means that east of the Rockies the jet stream will stay well to the north along the U.S. Canada border. Thus the pattern remains unchanged temperatures continuing to run above and much below normal for most of the country east the Rockies in the pattern looking fairly dry.

There will be a weak cold front will come down early next week and bring a band of significant 1-4"/25-100mm rain but in a narrow area across central and eastern Iowa ...northern third of Illinois ...far northwest Indiana ...most of Michigan and into eastern Ontario.

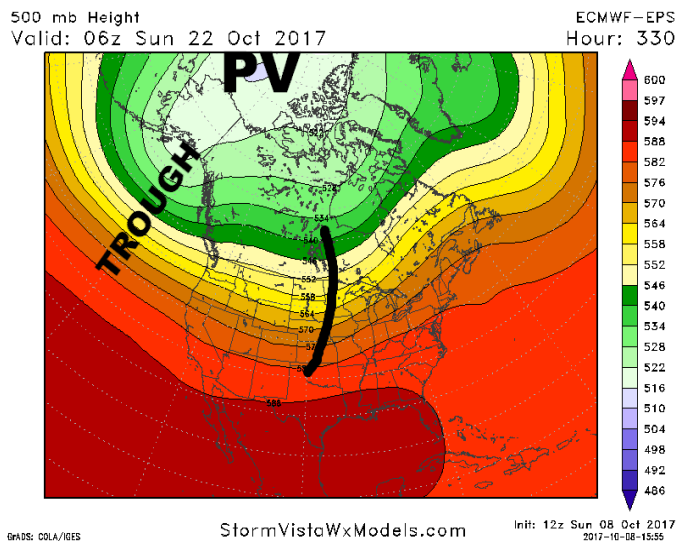


The GFS and European ensembles supports this idea of the band of moderate to significant rain but both the ensembles show this band of rain BUT the rain band is "wider" with much more of Iowa and Wisconsin seeing significant rains 1-2"/ 25-50mm.

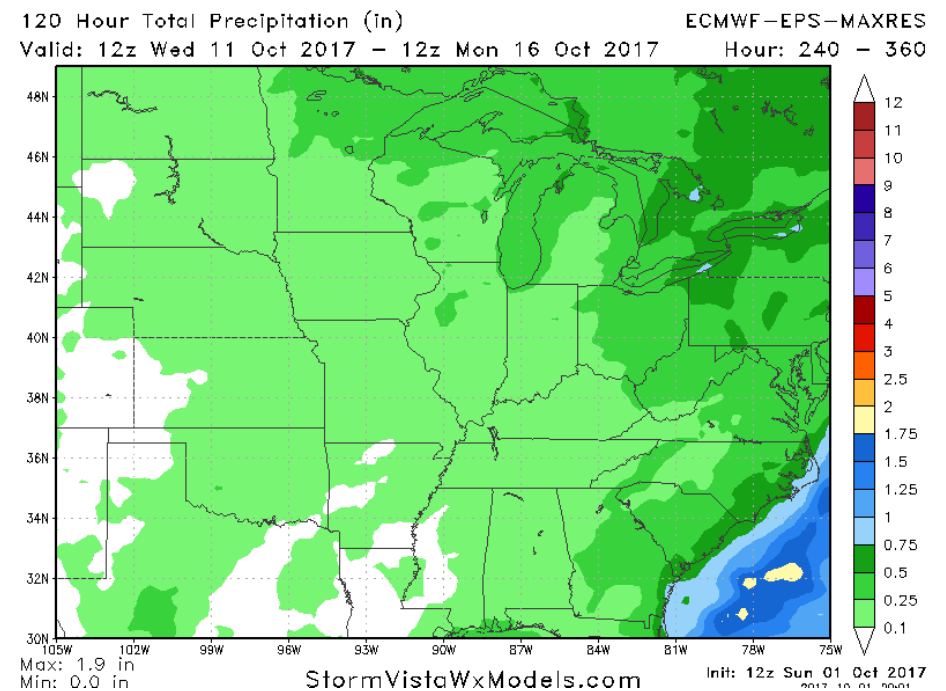
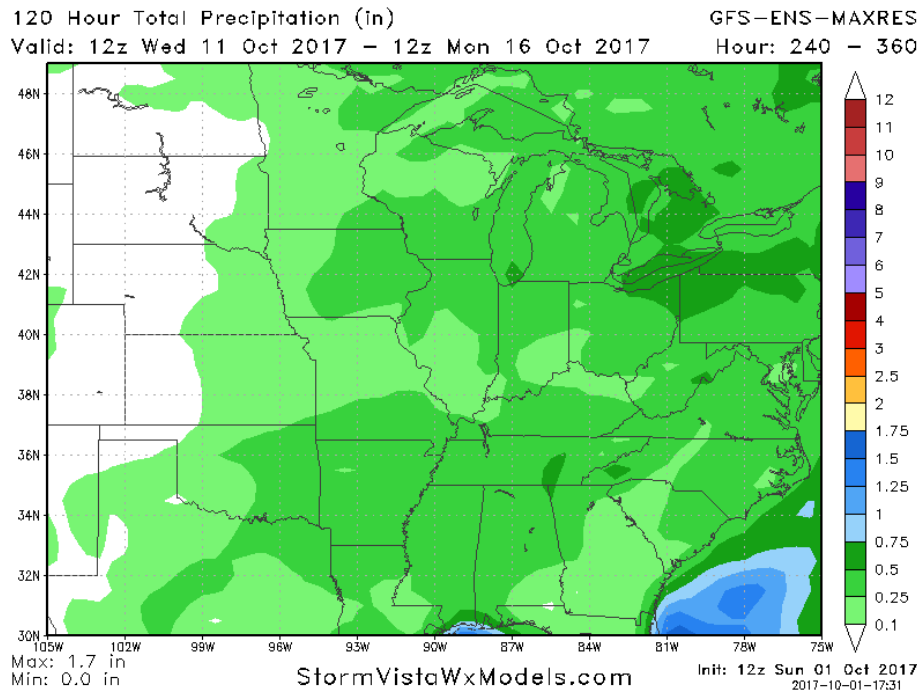


## 11-15 DAY

The overall Jetstream pattern has not changed all in the 11 to 15 day. We can clearly see the deep large polar vortex situated over Alaska Northwest Canada and the western side of the arctic region. This will continue to allow for a major buildup of arctic air but for the time it keeps the mean trough over the eastern Pacific and West Coast and temperatures generally above normal east the Rockies.





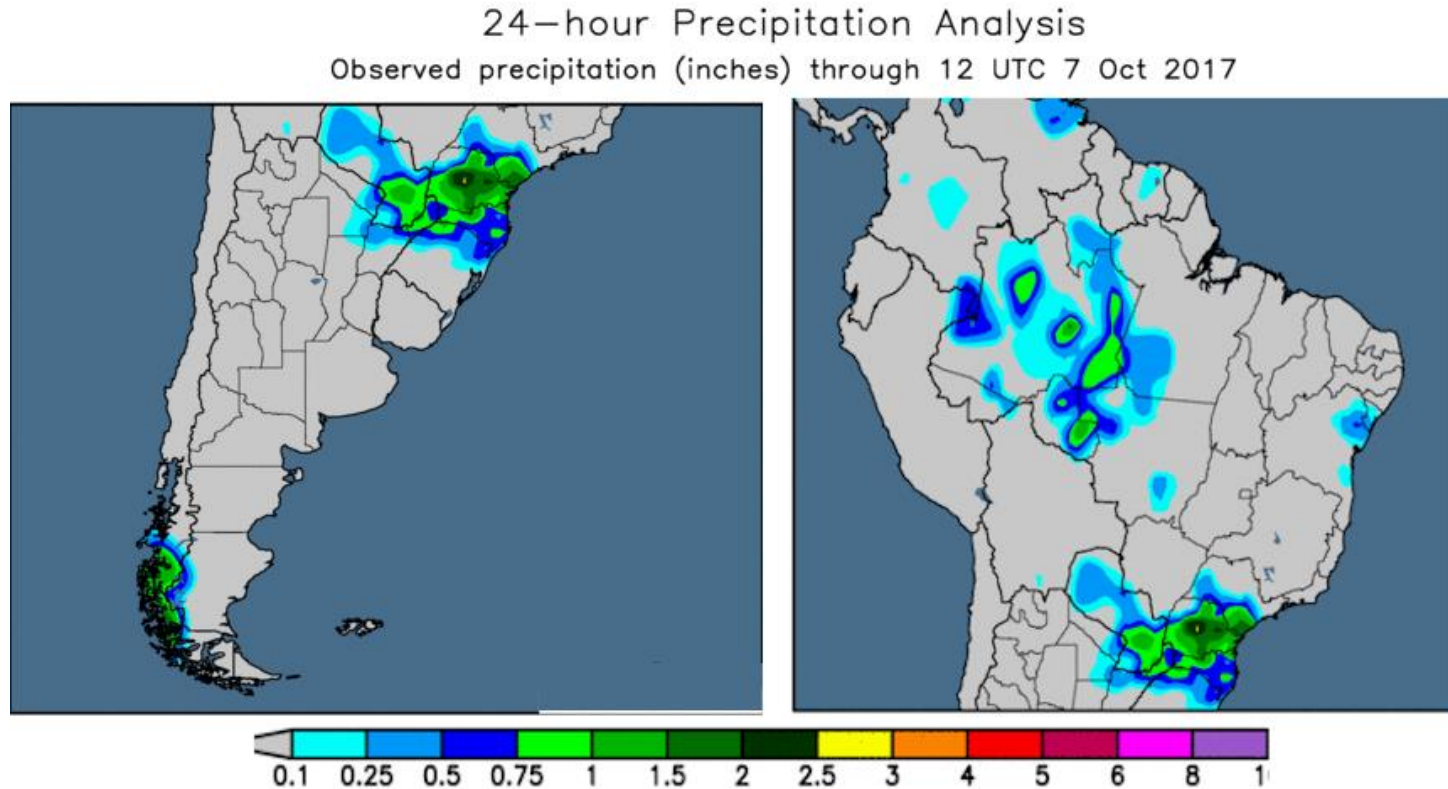


## SOUTH AMERICA

The heat over much of interior portions of Brazil has returned with a vengeance over the past 4 days and I think this is being missed by some forecasters and agronomists . The models are continue show a major rains coming all the next five days will all of northeastern Argentina eastern Paraguay and Southeast Brazil with some areas all the next 5 days seen rainfall amounts greater than 8"/ 200mm. Through the rainfall over Southeast Brazil weakens some in the 6-10 day but it picks up again with a vengeance in the 11 to 15 day. Meanwhile most of Argentina and most of Brazil outside of the rain area remains pretty dry.

**RAINFALL FRIDAY INTO SATURDAY ending 0700cdt 7 OCTOBER**

0.50-2.5"/ 12-60mm over 70% of Parana and Santa Catarina into far eastern Paraguay. All of Argentina was dry.

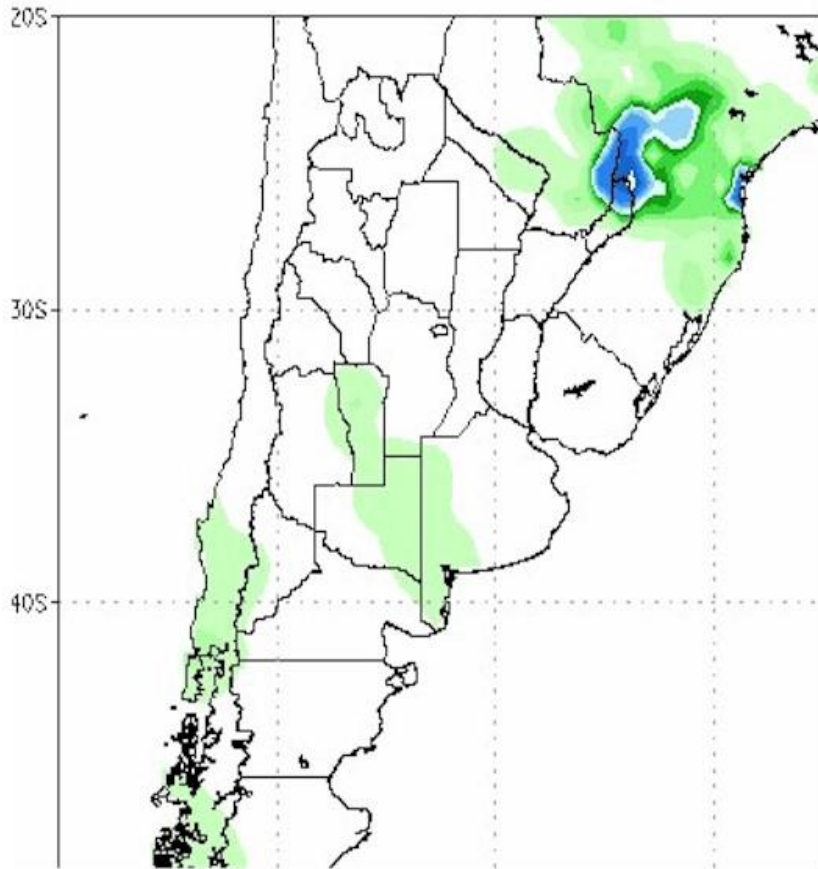


**RAINFALL SATURDAY INTO SUNDAY ending 0700 cdt 8 OCTOBER**

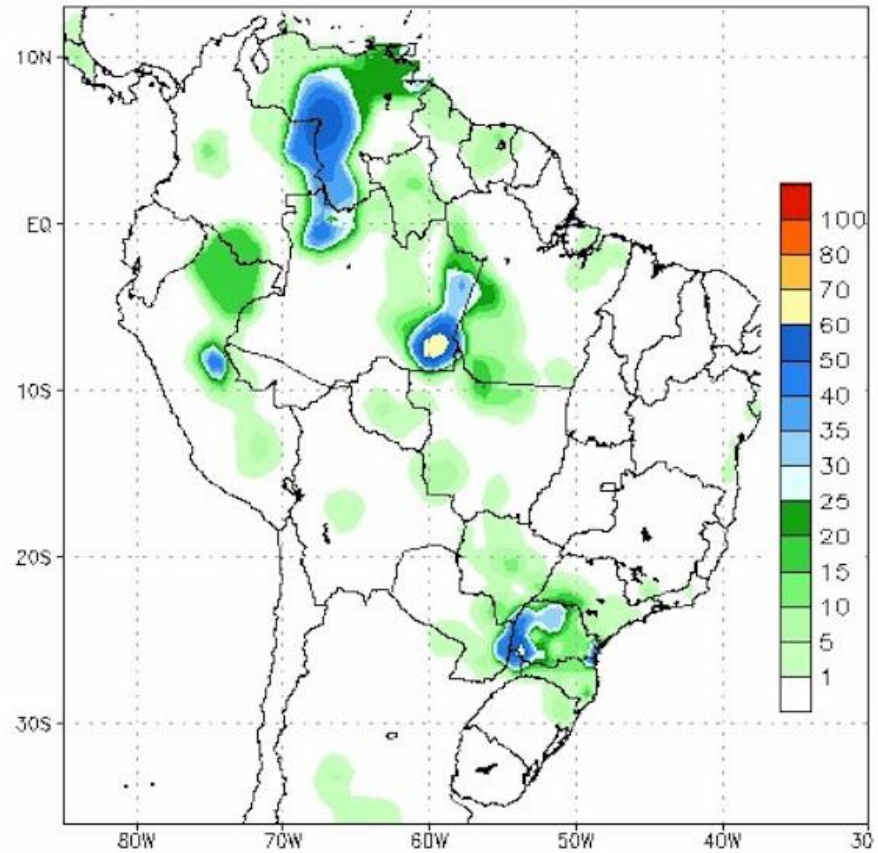
Scattered rains of 3-58mm/ 0.15-2.3" over 30-40% of southern MGDS into Parana. Also Scattered showers under 5mm/ 0.20" in southern Cordoba.



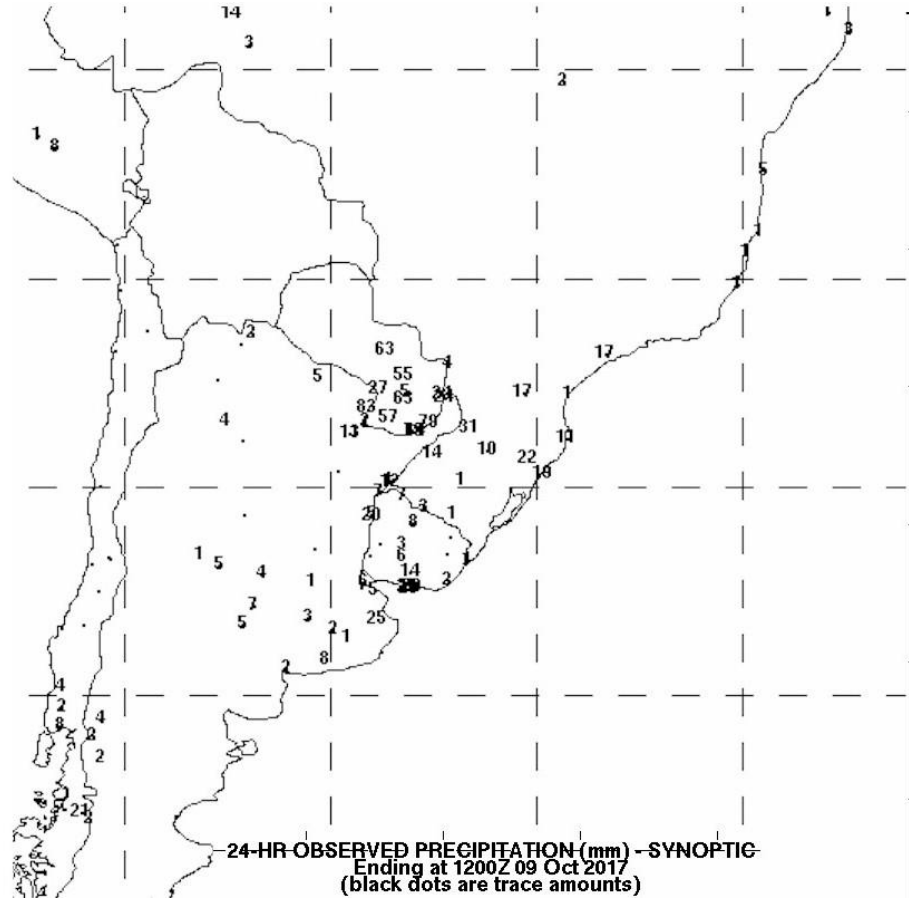
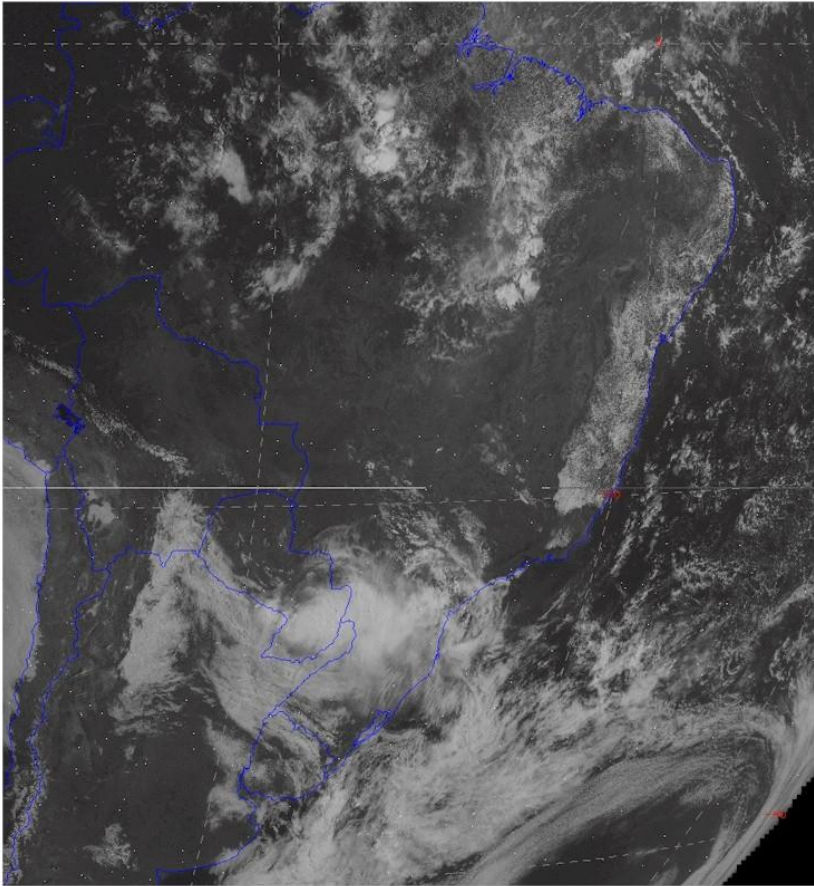
1-day Accumulated Precip (mm) 08OCT2017



1-day Accumulated Precip (mm) 08OCT2017



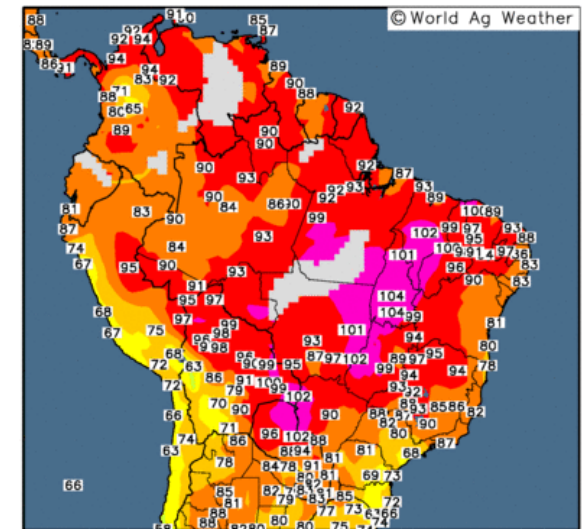
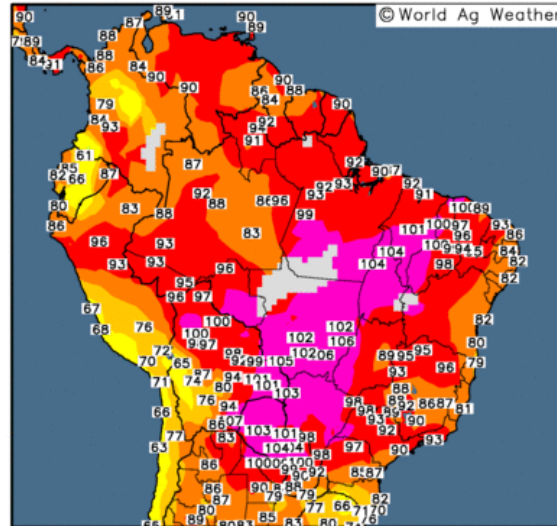
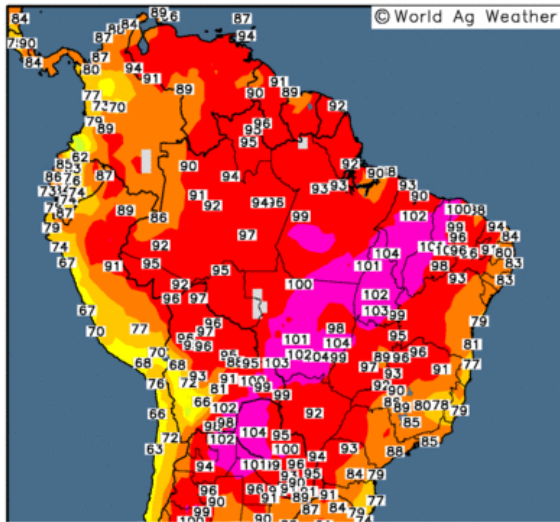
The rainfall from Sunday and Monday showed widespread significant rain as forecasted over northeast Argentina ... eastern Paraguay into northern RGDS... Santa Catarina and southern Parana. Amounts ranged from 6-80mm/ 0.25-7.25" with 60-70% coverage. Lighter rains of 5-25mm/ 0.25-1.0" fell over 40% of southern Cordoba Buenos Aires and Uruguay. Monday satellite show storms over Parana and eastern Paraguay



These temperature maps from the last 3 days show extreme heat over most of interior portions of Brazil. If you look closely you can see many areas reporting temperatures of 105f/ 40c+. This sort of extreme heat is actually reinforcing the dry pattern over Brazil and even though many of the extended models show that central Brazil is going to turn significantly wetter late October or November.... it is possible for the dry pattern the end of delaying are weakening the rains when it finally come north



Observed Maximum Temperature (°F) 5 Oct 2017      Observed Maximum Temperature (°F) 6 Oct 2017      Observed Maximum Temperature (°F) 7 Oct 2017

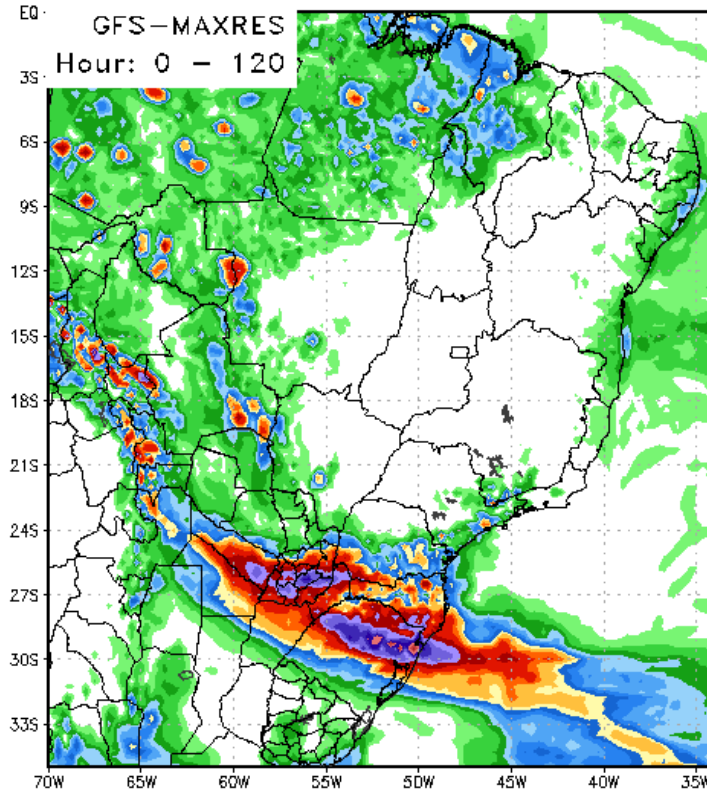


## 1-5 DAY

all models show extreme heavy rain coming all the next 5 days with 80% coverage over RGDS into Corrientes and eastern Paraguay eastern Formosa of 2.5-9.0"/ 60-225mm and 1-2"/ 25-50mm over Santa Catarina and eastern Chaco. Except for some moderate rain showers over far northwest Mato Grosso... the rest of Brazil looks completely dry. This is also the case for most of central Argentina

### 0 Hour Total Precipitation (in)

lid: 00z Mon 09 Oct 2017 - 00z Sat 14 Oct 2017

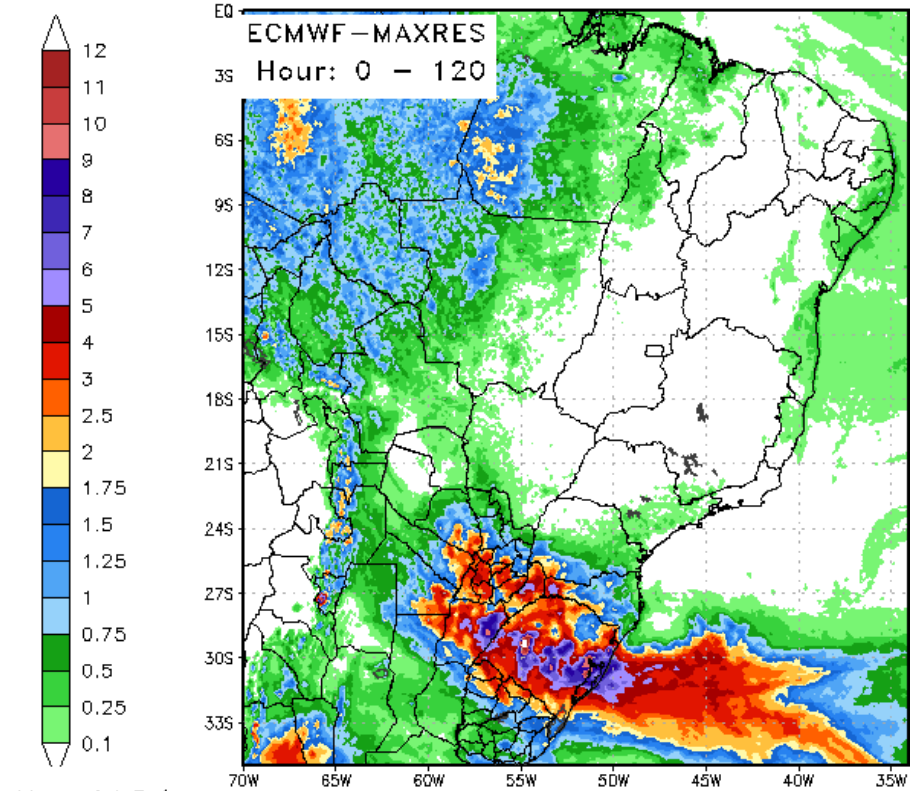


Max: 11.1 in  
Min: 0.0 in

StormVistaWxModels.com

### 120 Hour Total Precipitation (in)

Valid: 00z Mon 09 Oct 2017 - 00z Sat 14 Oct 2017



Max: 14.0 in  
Min: 0.0 in

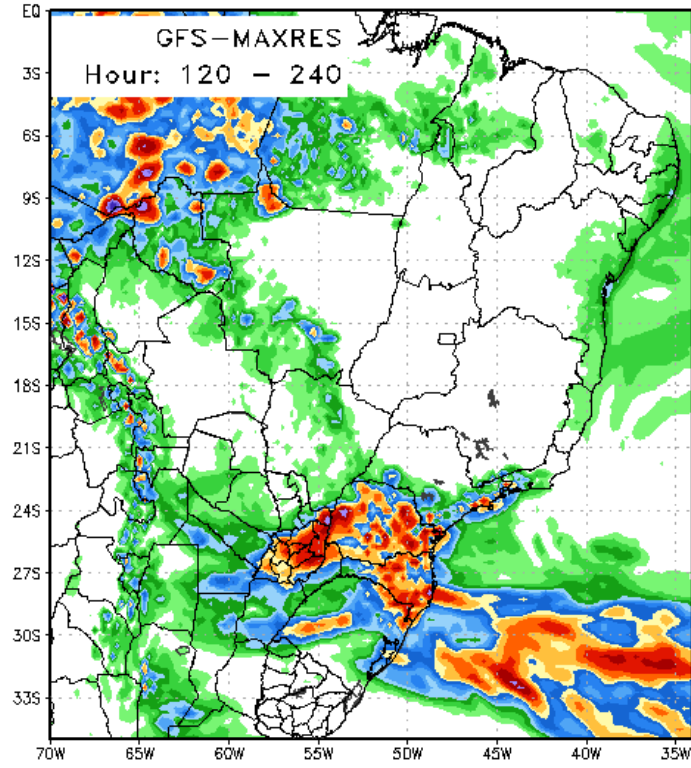
StormVistaWxModels.com

## 6 - 10 DAY

the heavy rains over Southeast Brazil & Northeast Argentina diminish significantly but moderatr to significant rains are still there in the 6-10d. The models show a band of 1-3"/ 25-75mm over 60% of northern RGDS and Corrientes. The GFS has these rains covering 60-70% of Parana but the Euro does not.



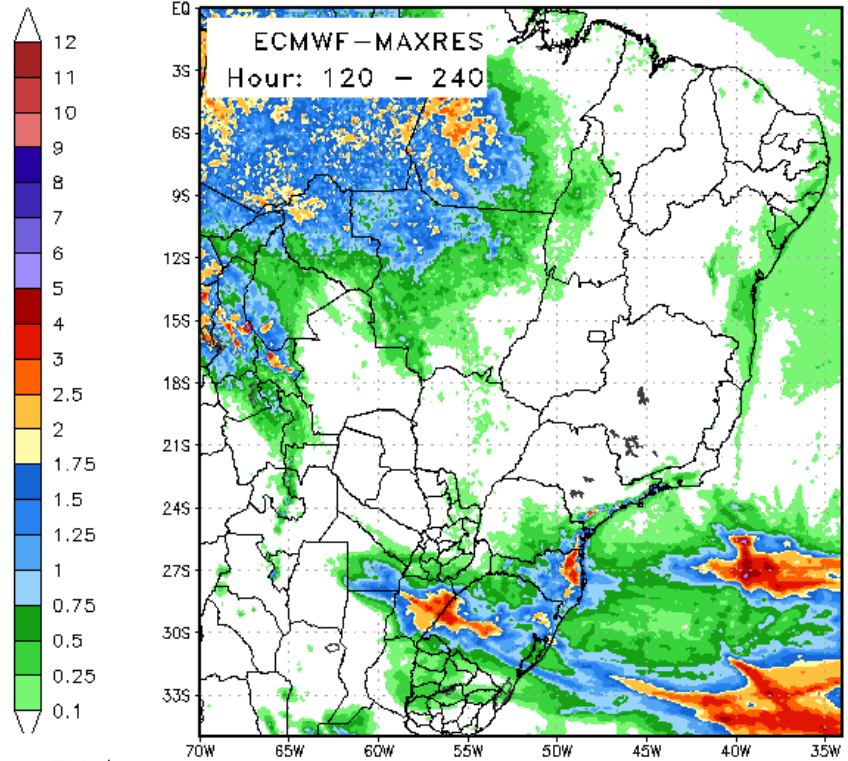
120 Hour Total Precipitation (in)  
Valid: 00z Sat 14 Oct 2017 – 00z Thu 19 Oct 2017



Max: 11.0 in  
Min: 0.0 in

StormVistaWxModels.com

120 Hour Total Precipitation (in)  
Valid: 00z Sat 14 Oct 2017 – 00z Thu 19 Oct 2017

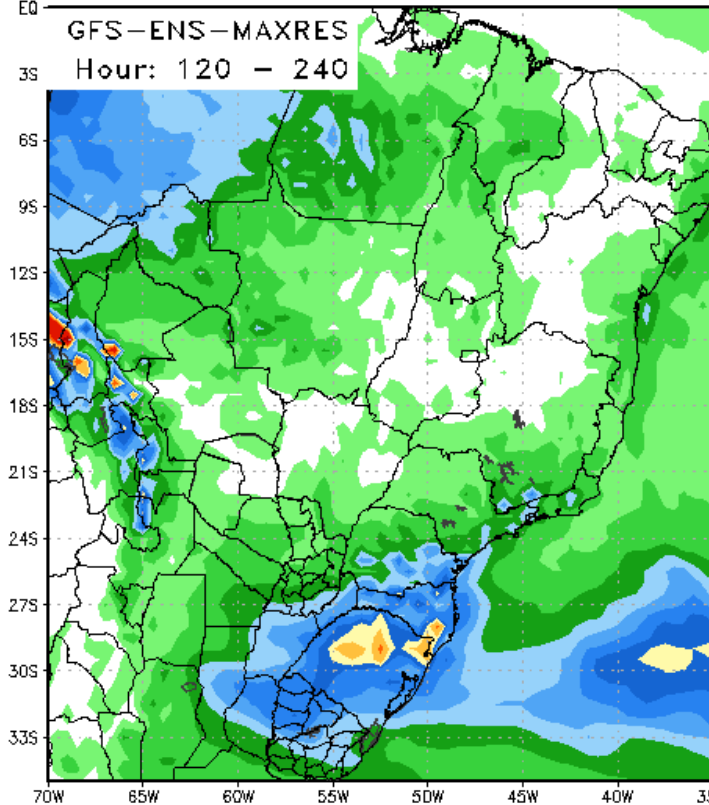


Max: 7.6 in  
Min: -0.0 in

StormVistaWxModels.com

The GFS and European ensembles are in strong agreement that there will be a concentration of 1-2"/ 25-50 mm rains over all Corrientes northern Santa Fe Entre Rios .. and all of RGDS into Santa Catarina.. and possibly Parana .

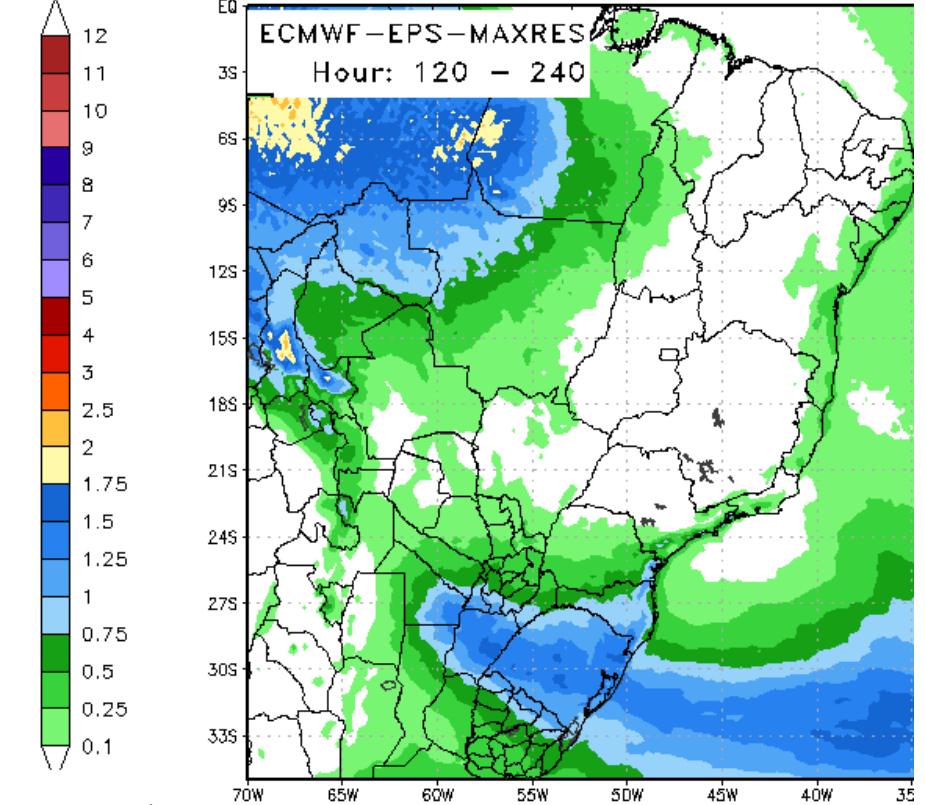
120 Hour Total Precipitation (in)  
 Valid: 00z Sat 14 Oct 2017 - 00z Thu 19 Oct 2017



Max: 4.7 in  
 Min: 0.0 in

StormVistaWxModels.com

120 Hour Total Precipitation (in)  
 Valid: 00z Sat 14 Oct 2017 - 00z Thu 19 Oct 2017



Max: 2.2 in  
 Min: 0.0 in

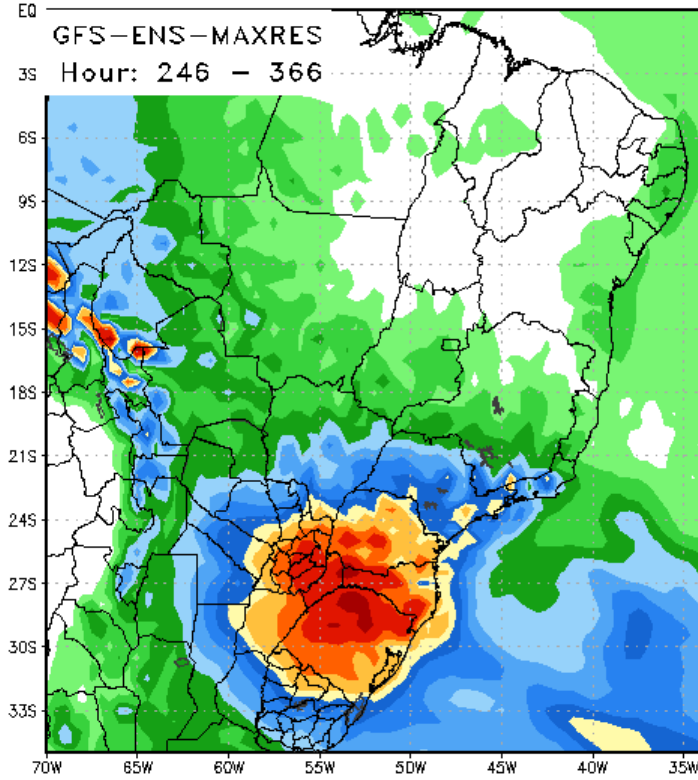
StormVistaWxModels.com

## 11 - 15 DAY

strong model agreement here that there is going to be another significant major rain event for all of Southeast Brazil .. northeast Argentina ..as well as Eastern Paraguay. Rainfall amounts of 1-4"/ 25-100mm are showing up on the data which implies it could be a lot more. These heavy rains cover 80% of Parana Santa Catarina RGDS Corrientes eastern Chaco/ Formosa and eastern Paraguay...1-2" into 60% of southern MGDS and southern Sao Paulo and western half of Mato Grosso



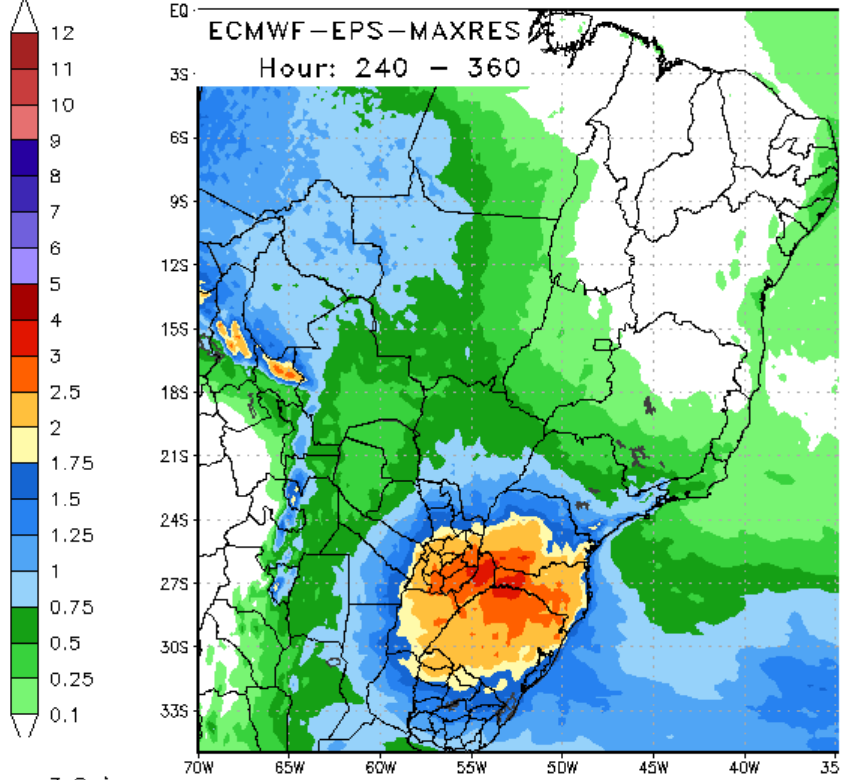
120 Hour Total Precipitation (in)  
Valid: 06z Thu 19 Oct 2017 - 06z Tue 24 Oct 2017



Max: 4.7 in  
Min: 0.0 in

StormVistaWxModels.com

120 Hour Total Precipitation (in)  
Valid: 00z Thu 19 Oct 2017 - 00z Tue 24 Oct 2017



Max: 3.6 in  
Min: -0.0 in

StormVistaWxModels.com

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