

US and SOUTH AMERICA GRAIN WEATHER ISSUES

**as of FRIDAY
13 OCTOBER 2017**



LOCATED in Richmond VA

Featured frequently on AGRI-MONEY

EMAIL WXRISK@VERZION .NET



@WXRISK.COM



<https://www.facebook.com/WxRisk>

wxrisk@gmail.com



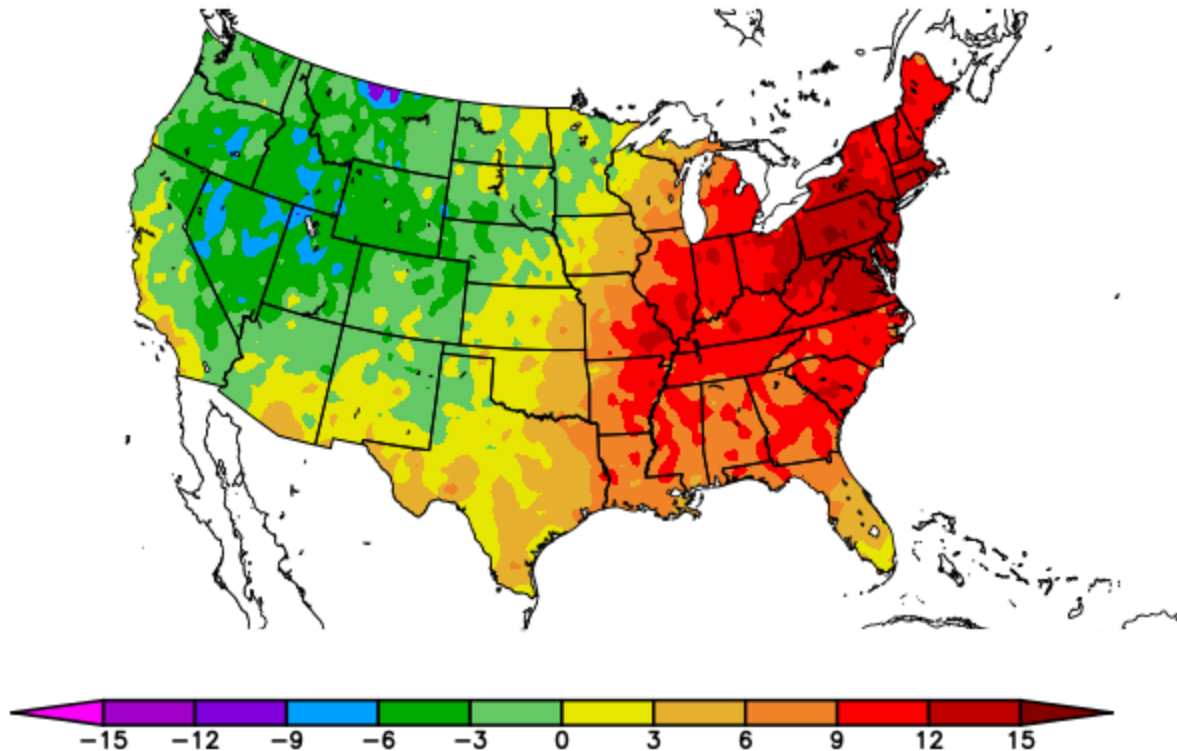
Who we are

WxRisk is a private, subscription, Weather Forecasting Company. Founded in 1998, the company specializes in providing the most detailed and accurate weather forecasts for Days 3 through 30, as well as seasonal forecasts, for Grain Traders, Farmers, Energy Traders, Construction companies, Oil and Heat associations, Wineries and other businesses impacted by weather. Geographic areas covered include, but are not limited to: The Middle Atlantic region of the U.S., all of the Continental U.S., South America, Europe, Ukraine/Southern and western Russia, Kazakhstan, India, Australia & China. Current and previous clients include large and mid-size commodity trading houses, energy firms, gas and propane companies, ski resorts, individual farmers and business involved in providing transportation and construction services throughout the world.



TEMP ANOMALIES LAST 7 DAYS

Departure from Normal Temperature (F)
10/5/2017 - 10/11/2017



Generated 10/12/2017 at HPRCC using provisional data.

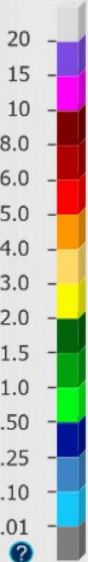
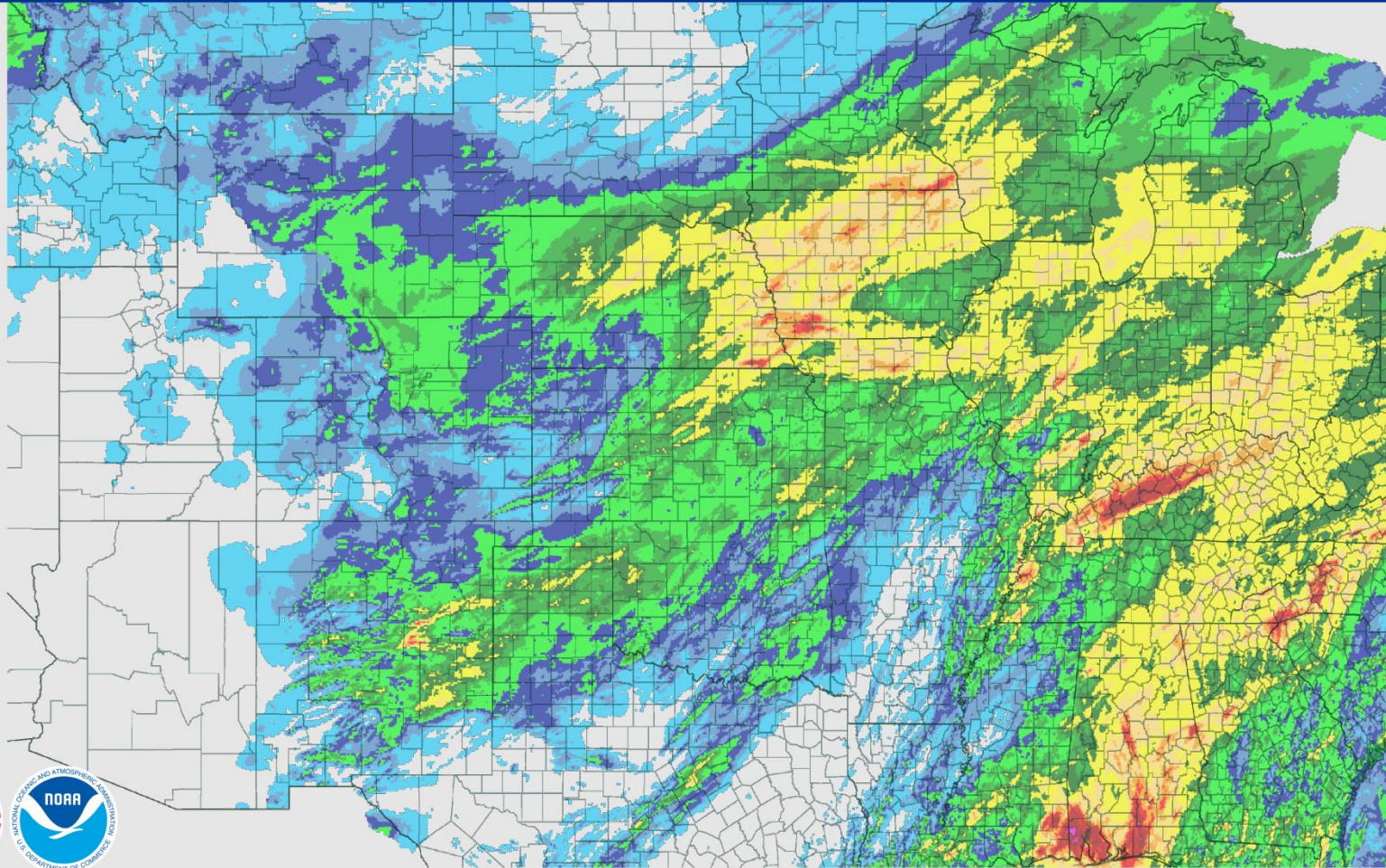
NOAA Regional Climate Centers

RAINFALL PAST 7 DAYS—

October 12, 2017 7-Day Observed Precipitation

Created on: October 13, 2017 - 05:45 UTC

Valid on: October 12, 2017 12:00 UTC

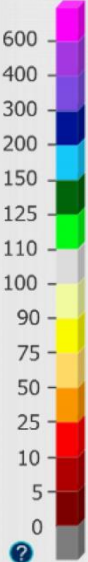
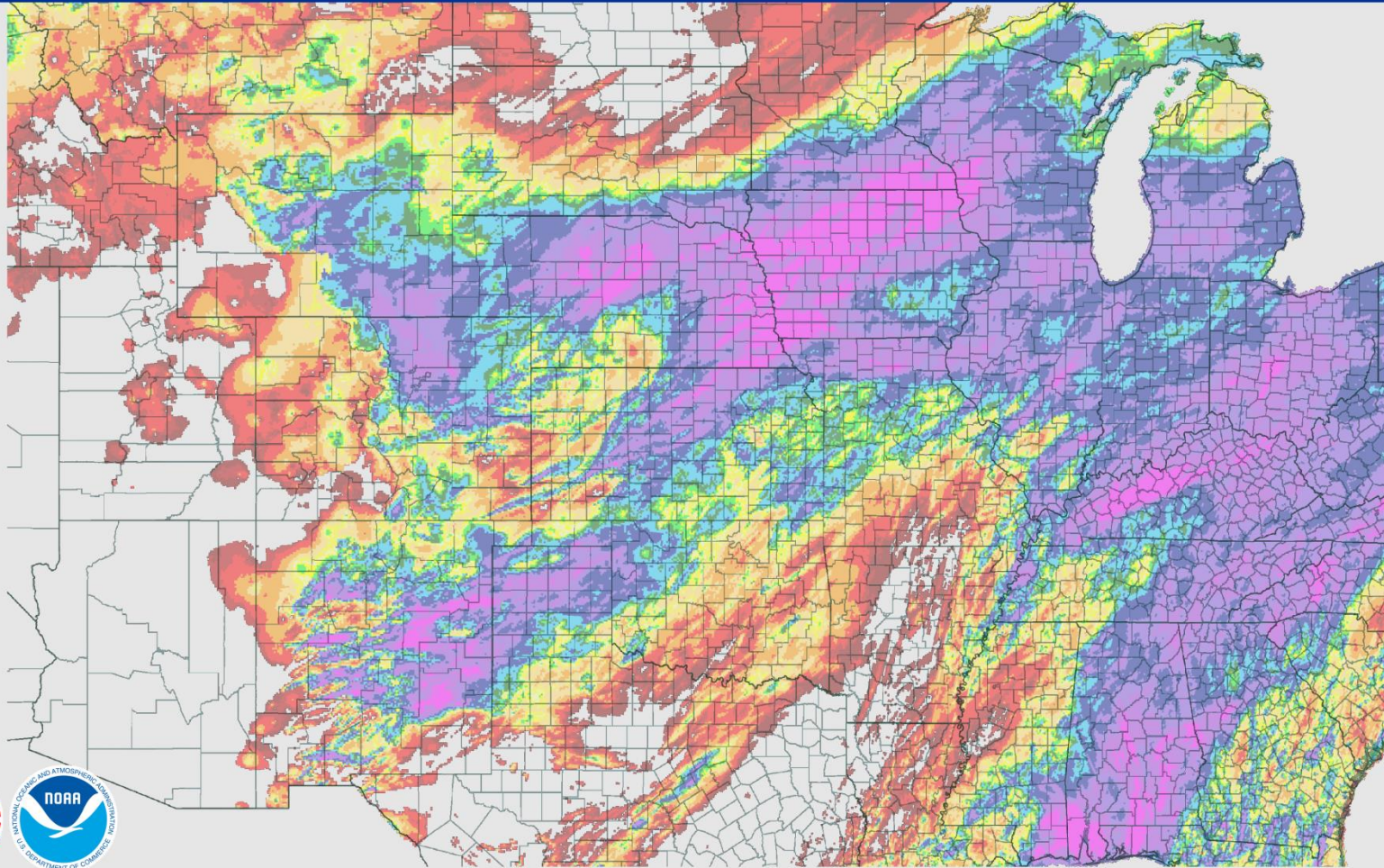


PRECIP ANOMALIES PAST 7D- Feast or Famine

October 12, 2017 7-Day Percent Precipitation

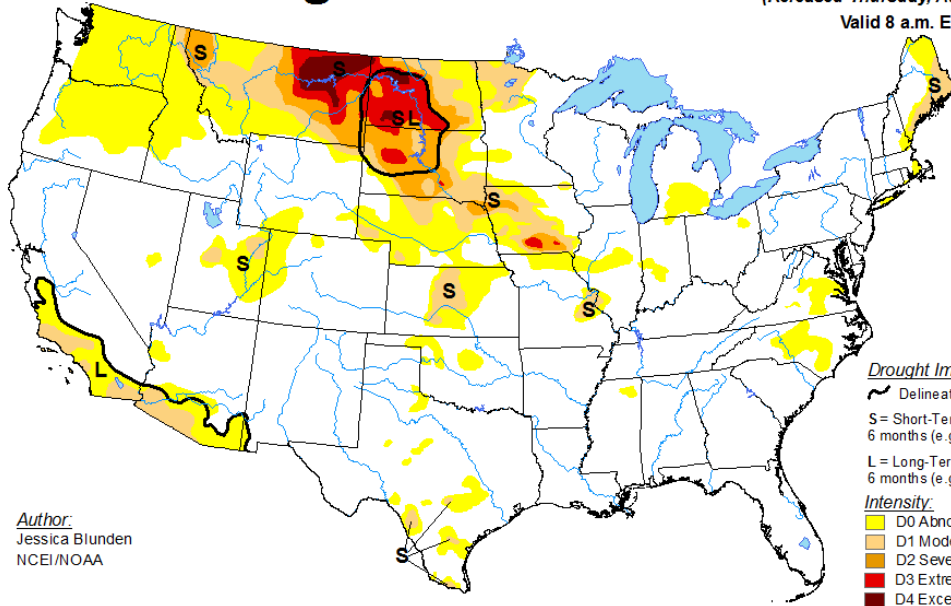
Created on: October 13, 2017 - 05:46 UTC

Valid on: October 12, 2017 12:00 UTC



U.S. Drought Monitor

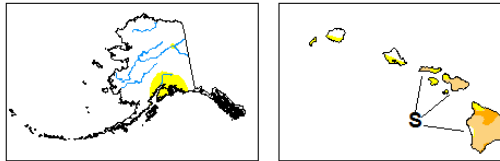
August 15, 2017
 (Released Thursday, Aug. 17, 2017)
 Valid 8 a.m. EDT



Drought Impact Types:
 ~ Delineates dominant impacts
 S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
 L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

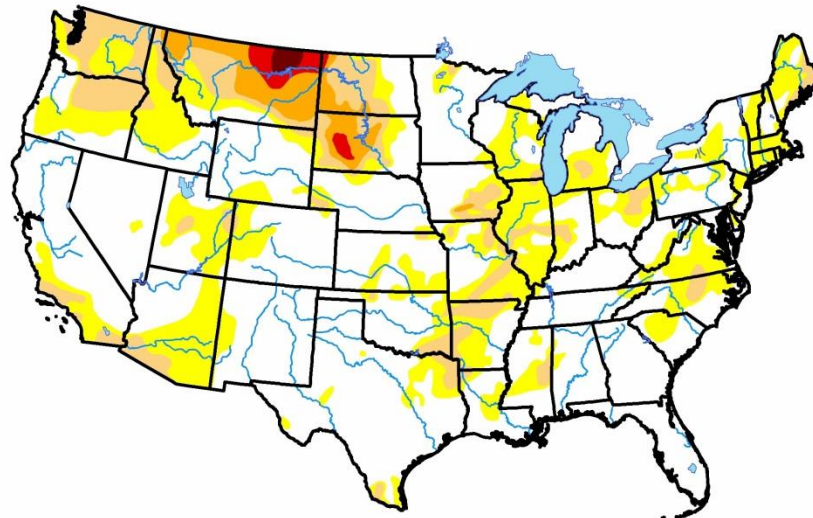
Intensity:
 Yellow: D0 Abnormally Dry
 Orange: D1 Moderate Drought
 Red-Orange: D2 Severe Drought
 Red: D3 Extreme Drought
 Dark Red: D4 Exceptional Drought

Author:
 Jessica Blunden
 NCEI/NOAA



U.S. Drought Monitor Total U.S.

October 10, 2017
 (Released Thursday, Oct. 12, 2017)
 Valid 8 a.m. EDT



Intensity:
 Yellow: D0 Abnormally Dry
 Orange: D1 Moderate Drought
 Red-Orange: D2 Severe Drought
 Red: D3 Extreme Drought
 Dark Red: D4 Exceptional Drought

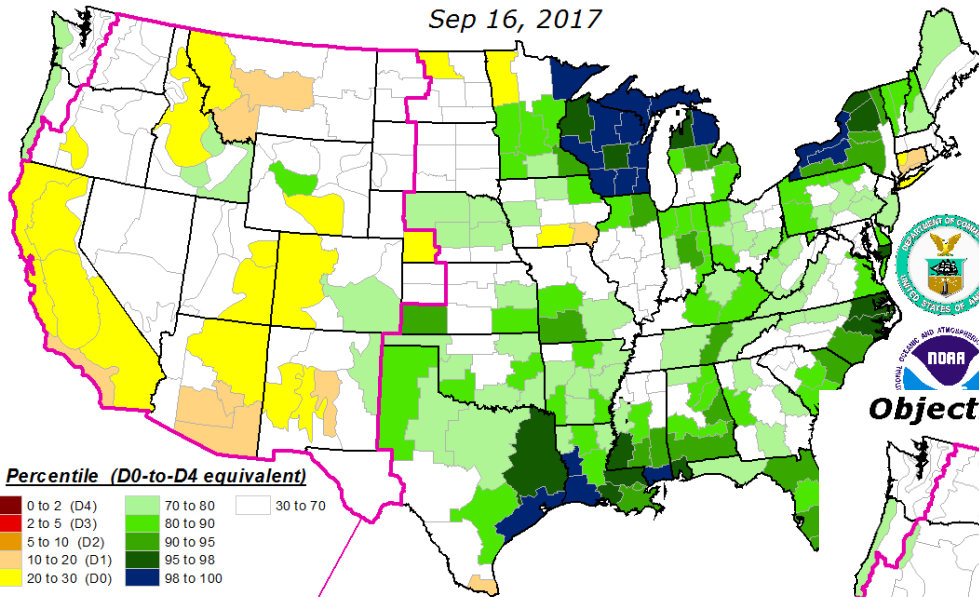
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

**Severe Drought over
 ND SD NEB has
 ENDED- Lt -Mod
 drought east IA ILL MO
 ARK WI IND VA NC**

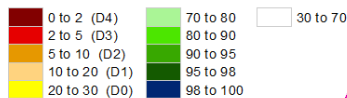
Long term trend still show eastern half of the country "WET" favors mean trough position over Midwest/ East coast for Autumn / Winter

Objective Long-Term Drought Indicator Blend Percentiles

Sep 16, 2017



Percentile (D0-to-D4 equivalent)



Inputs (as percentiles):

- 25% Palmer Hydrologic Index
- 20% 24-Month Precipitation
- 20% 12-Month Precipitation
- 15% 6-Month Precipitation
- 10% 60-Month Precipitation
- 10% CPC Soil Moisture Model

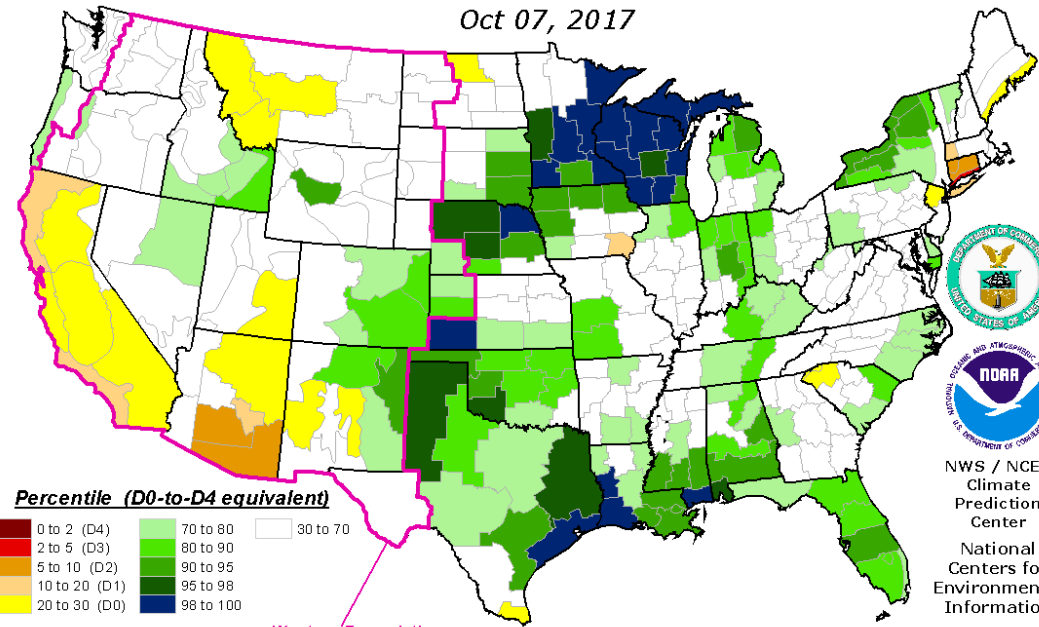
Western Formulation Inputs (as percentiles):

- 30% Palmer Hydrologic Index
- 30% 60-Month Average Z-Index
- 10% 60-Month Precipitation
- 10% 24-Month Precipitation
- 10% 12-Month Precipitation
- 10% CPC Soil Moisture Model

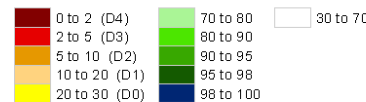
This map approximates impacts responding to precipitation over 4 years, such as reservoir content, groundwater, and lake levels. **BETWEEN INDICATORS AND WATER SUPPLIES CAN VARY** SEASON, SOURCE, AND MANAGEMENT PRACTICE. Do not interpret this map too literally. This map is based on preliminary climate division final data may differ. See the detailed product suit

Objective Long-Term Drought Indicator Blend Percentiles

Oct 07, 2017



Percentile (D0-to-D4 equivalent)



Inputs (as percentiles):

- 25% Palmer Hydrologic Index
- 20% 24-Month Precipitation
- 20% 12-Month Precipitation
- 15% 6-Month Precipitation
- 10% 60-Month Precipitation
- 10% CPC Soil Moisture Model

Western Formulation Inputs (as percentiles):

- 30% Palmer Hydrologic Index
- 30% 60-Month Average Z-Index
- 10% 60-Month Precipitation
- 10% 24-Month Precipitation
- 10% 12-Month Precipitation
- 10% CPC Soil Moisture Model

This map approximates impacts responding to precipitation over the course of several months to a few years, such as reservoir content, groundwater, and lake levels. **HOWEVER, THE RELATIONSHIP BETWEEN INDICATORS AND WATER SUPPLIES CAN VARY MARKEDLY WITH LOCATION, SEASON, SOURCE, AND MANAGEMENT PRACTICE. Do not interpret this map too literally.**

This map is based on preliminary climate division data. Local conditions and/or final data may differ. See the detailed product suite description for more details.

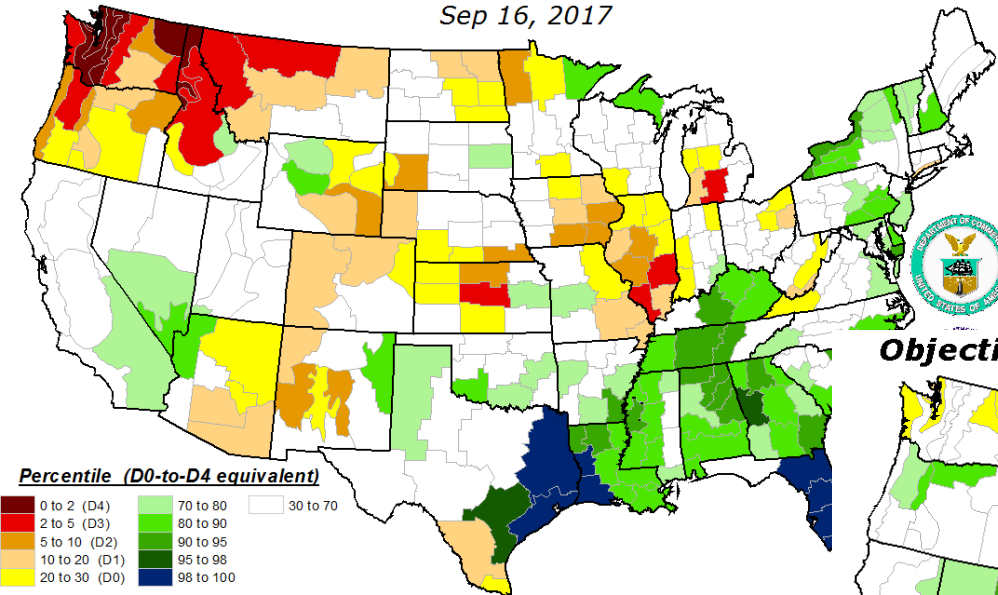


NWS / NCEP
Climate
Prediction
Center
National
Centers for
Environmental
Information

SHORT term trend = PAC NW into Upper Plains is gone ..Plains/ WCB Much wetter ECB still dry... MID Atlantic dry

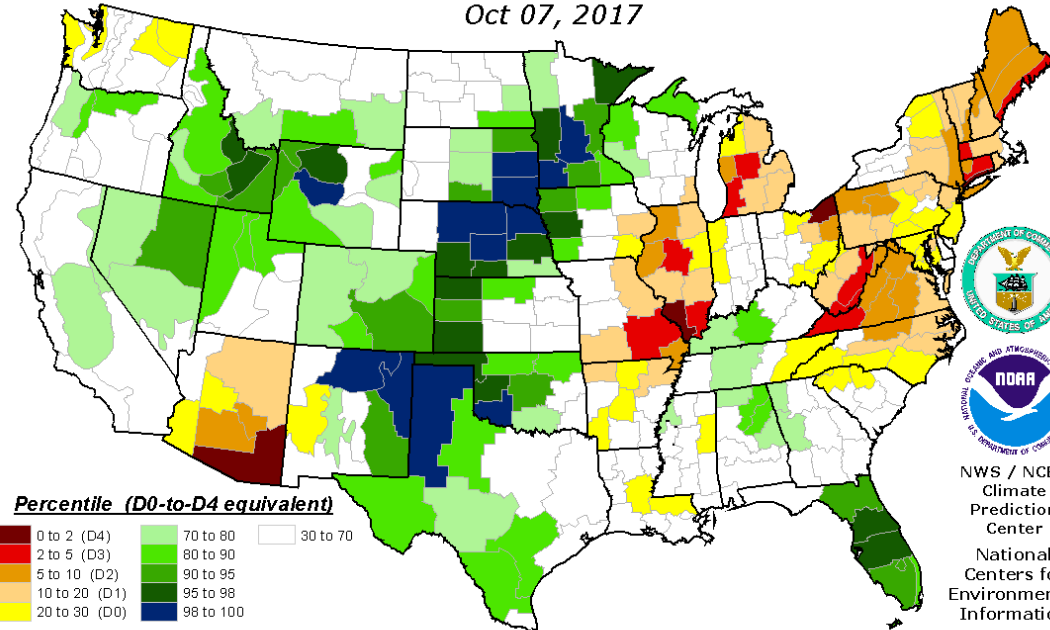
Objective Short-Term Drought Indicator Blend Percentiles

Sep 16, 2017



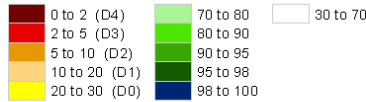
Objective Short-Term Drought Indicator Blend Percentiles

Oct 07, 2017



NWS / NCEP
Climate
Prediction
Center
National
Centers for
Environmental
Information

Percentile (D0-to-D4 equivalent)



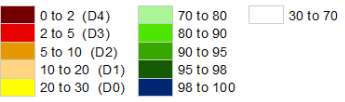
Inputs (as percentiles):

- 35% Palmer Z-Index
- 25% 3-Month Precipitation
- 20% 1-Month Precipitation
- 13% CPC Soil Moisture Model
- 7% Palmer Drought Index

This map approximates impacts that respond to precipitation over several days to a few months, such as agriculture, topsoil moisture, unregulated streamflows, and most aspects of wildfire danger. The relationship between indicators and impacts can vary significantly with location and season. Do not interpret this map too literally.

This map is based on preliminary climate division data. Local conditions and/or final data may differ. See the detailed product suite description for more detail.

Percentile (D0-to-D4 equivalent)



Inputs (as percentiles):

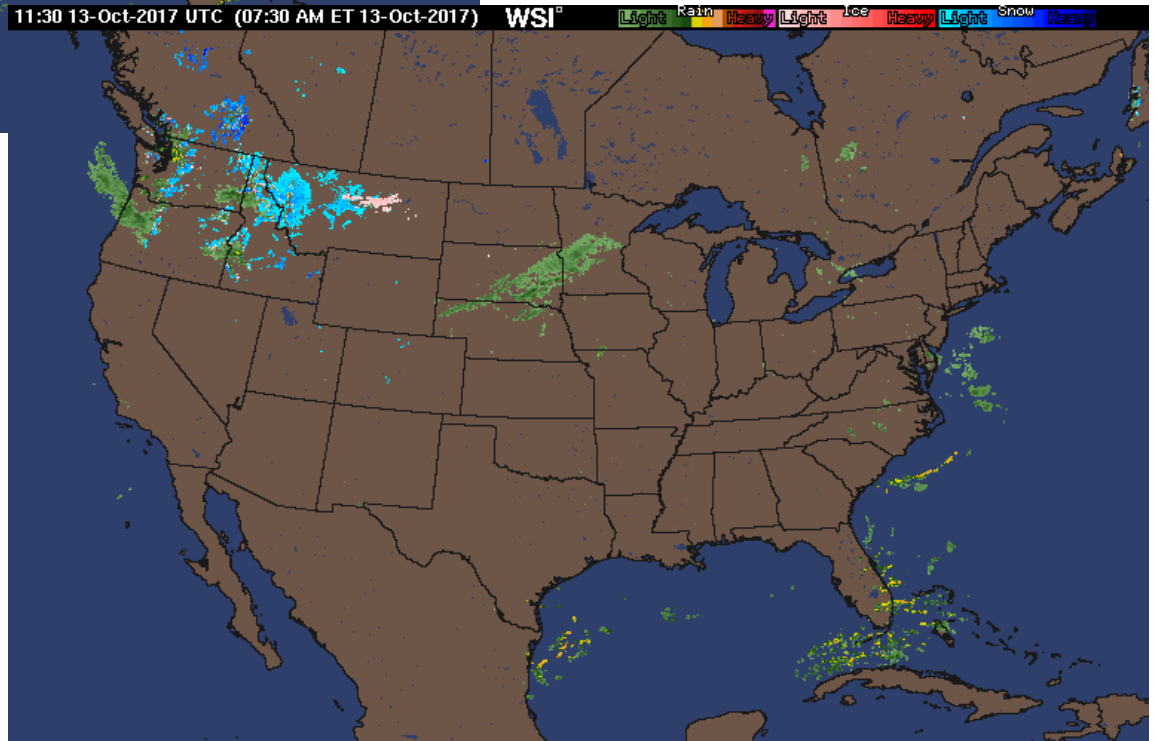
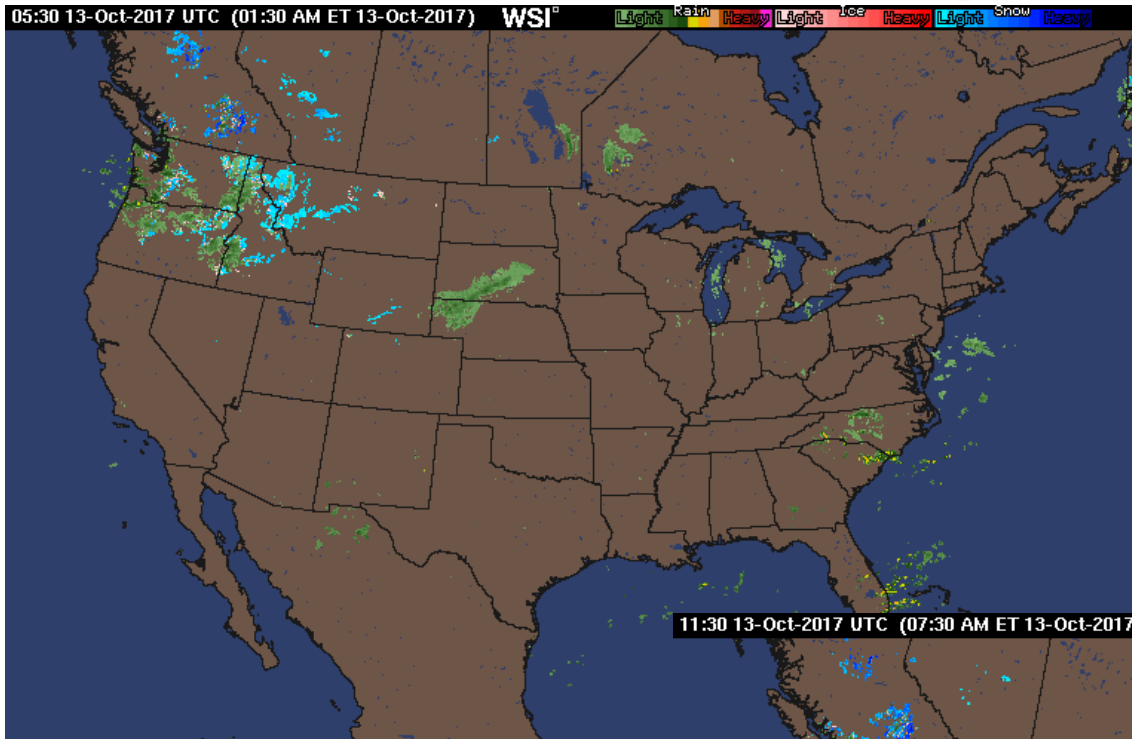
- 35% Palmer Z-Index
- 25% 3-Month Precipitation
- 20% 1-Month Precipitation
- 13% CPC Soil Moisture Model
- 7% Palmer Drought Index

This map approximates impacts that respond to precip a few months, such as agriculture, topsoil moisture, ur most aspects of wildfire danger. The relationship betw can vary significantly with location and season. Do not in

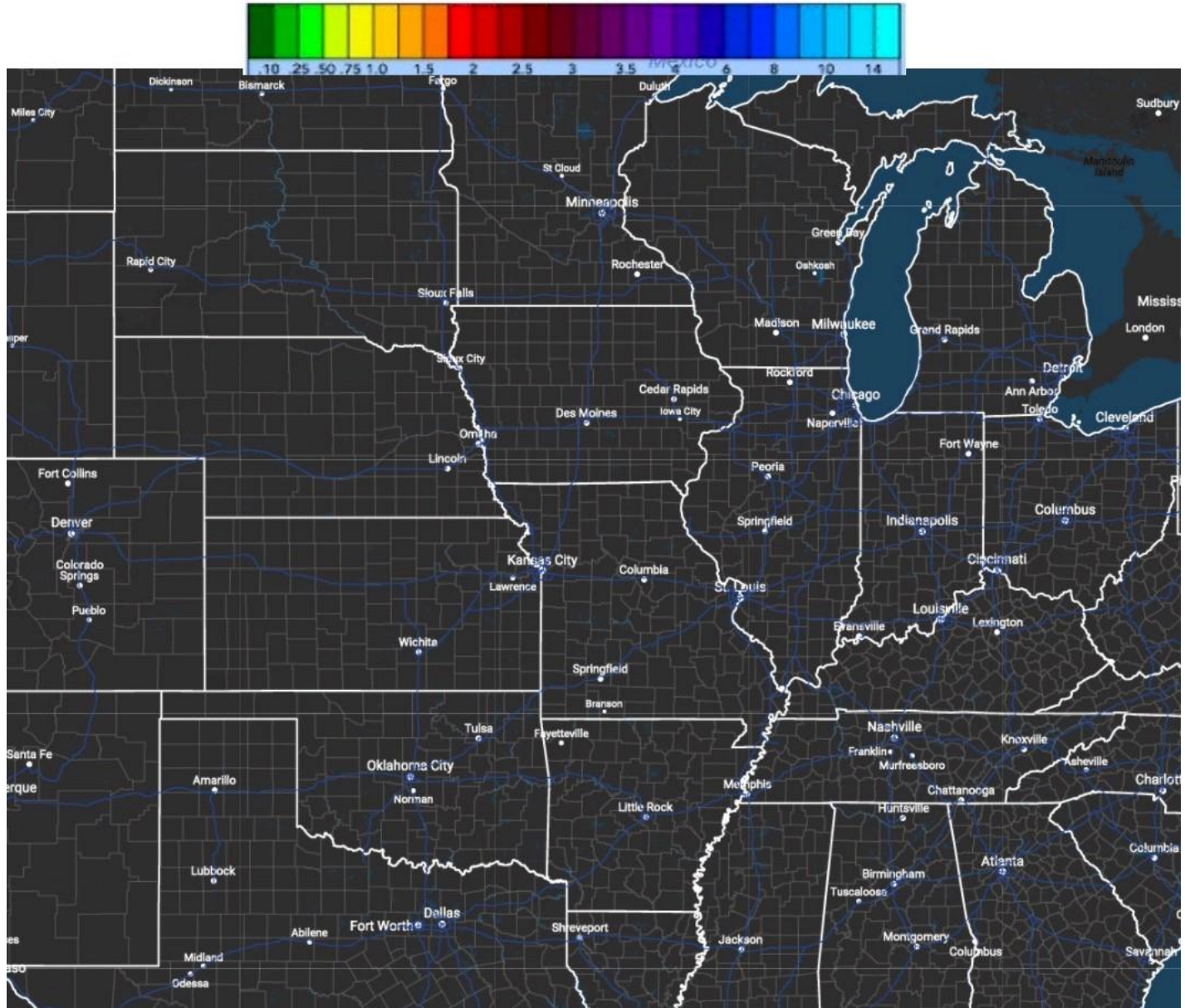
This map is based on preliminary climate divisor final data may differ. See the detailed product sui

RADAR 12 AM /7AM

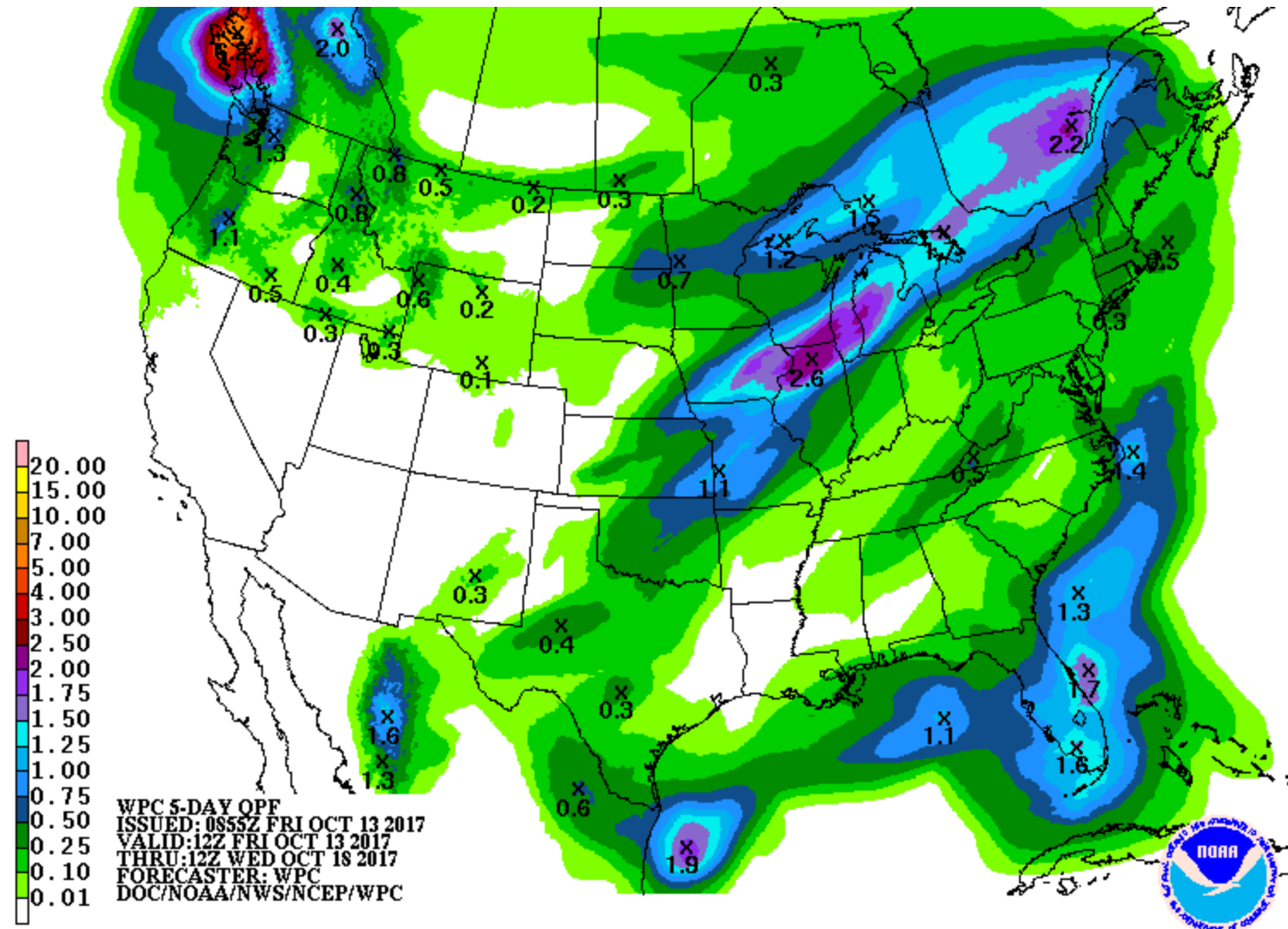
FRIDAY



RAINFALL AS OF 13 OCT



NWS OFFICIAL RAINFALL NEXT 5 DAYS

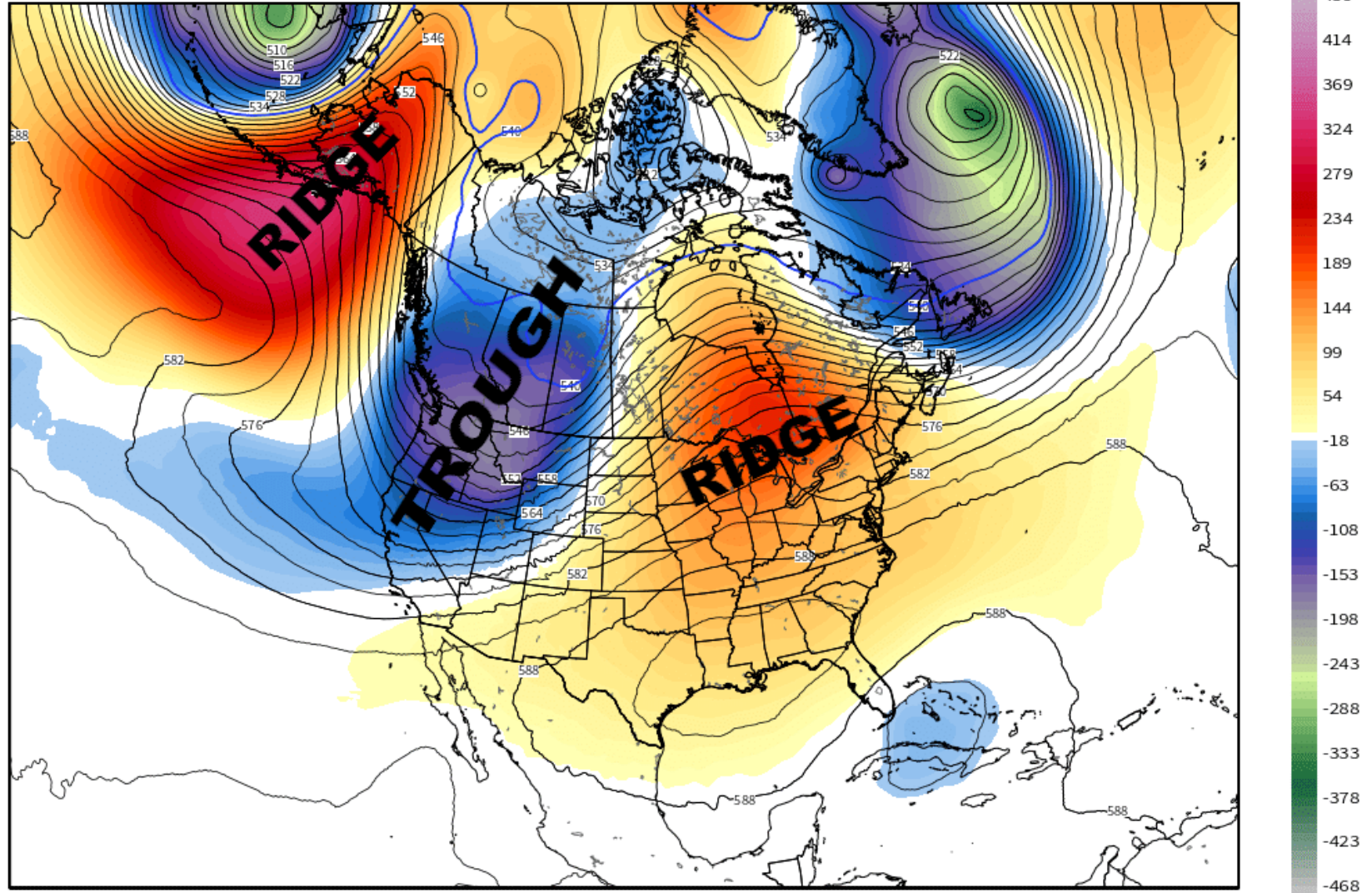


500mb map 13 OCT

ECMWF 500 hPa Geopotential Height [dm] & Anomaly [m]
Init: 12Z12OCT2017 -- [0] hr --> Valid Thu 12Z12OCT2017

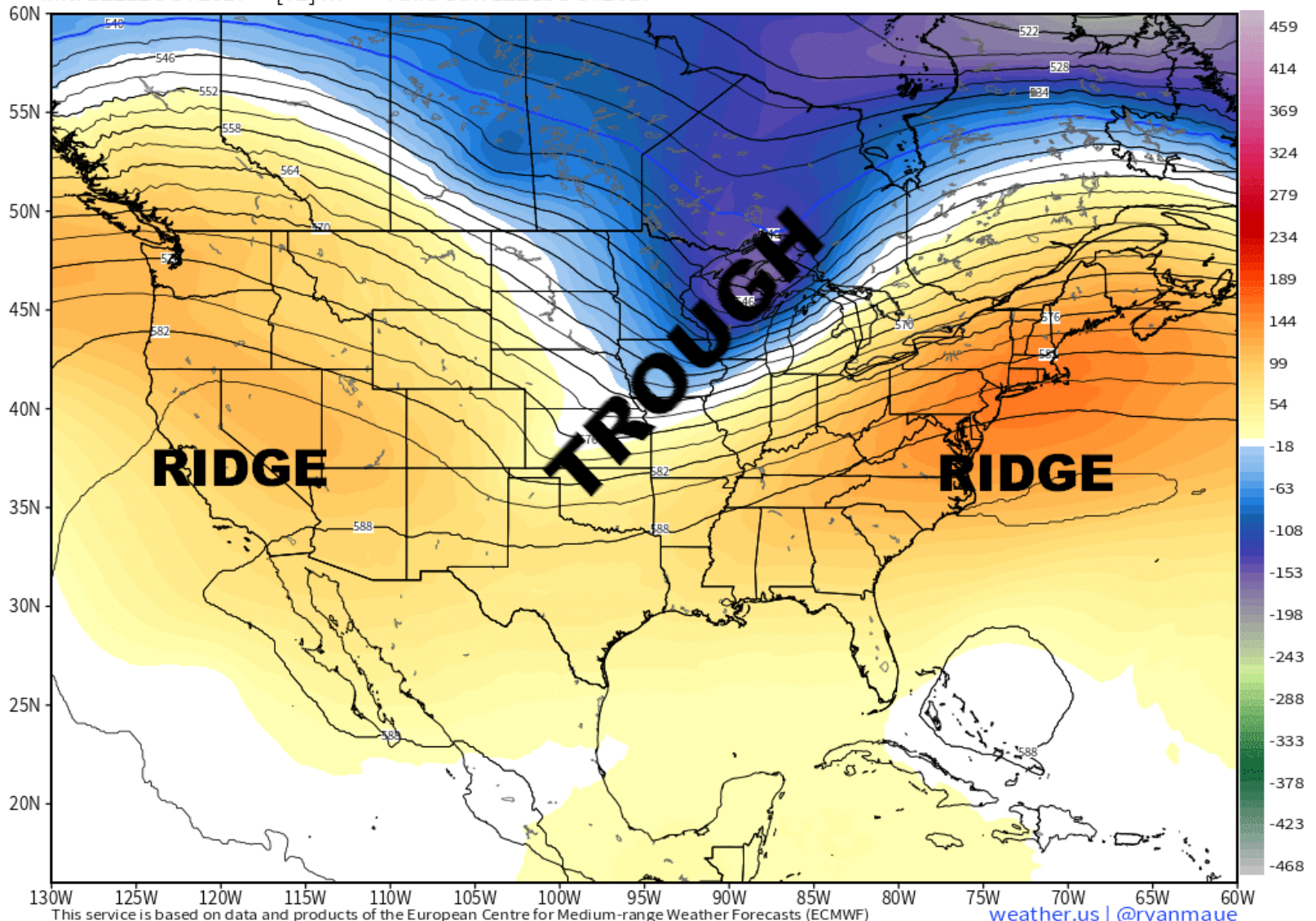
Min|Max: -363.2 | 340.0 m

THUR OCT 12



ECMWF 500 hPa Geopotential Height [dm] & Anomaly [m]
Init: 12Z12OCT2017 -- [72] hr --> Valid Sun 12Z15OCT2017

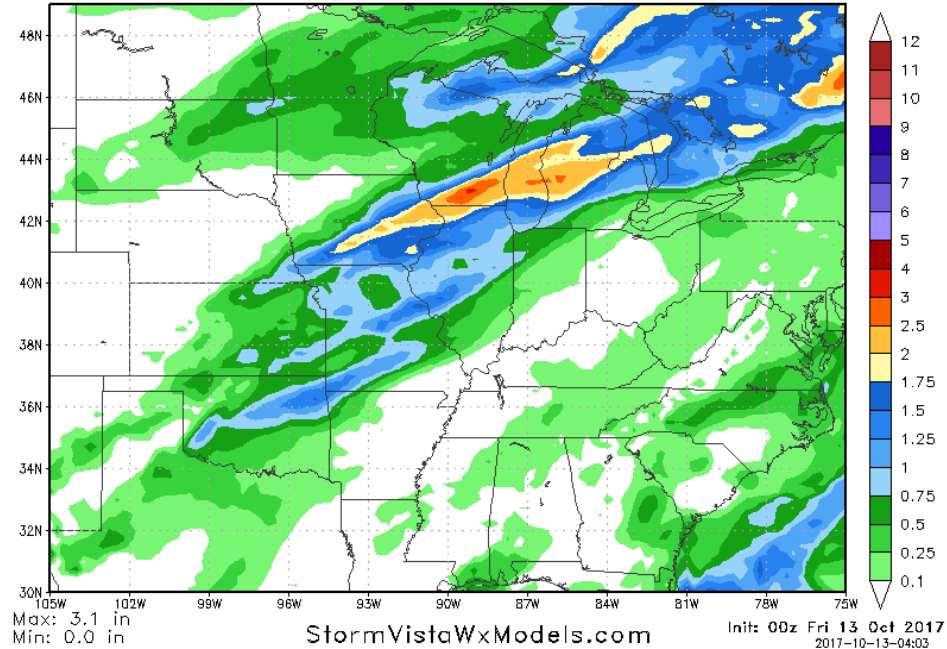
Min|Max: -215.5 | 158.0 m



NEXT 5 DAYS GFS LEFT EURO RIGHT

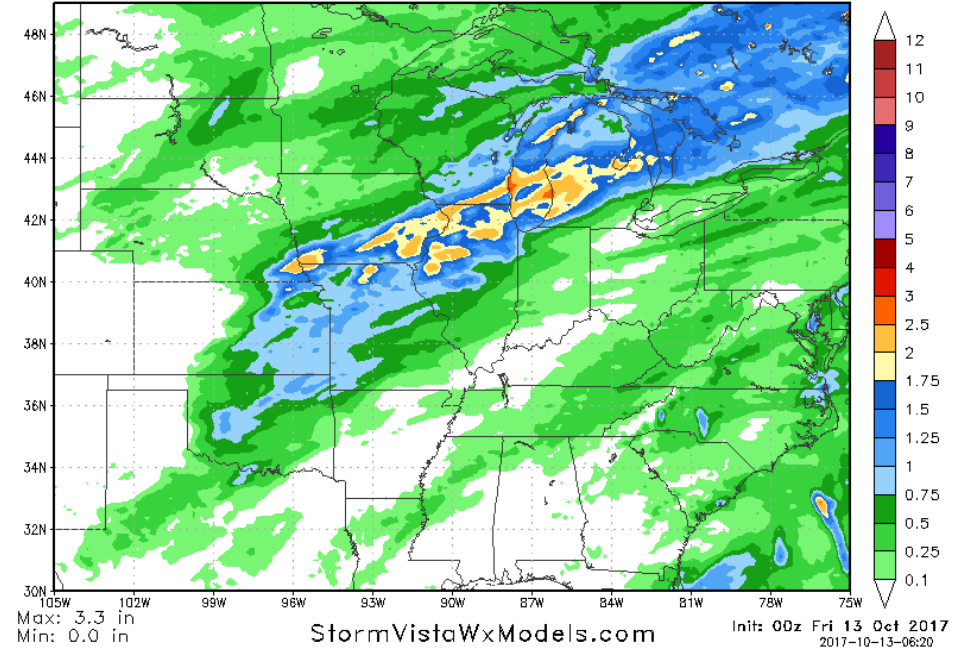
120 Hour Total Precipitation (in)
Valid: 00z Fri 13 Oct 2017 - 00z Wed 18 Oct 2017

GFS-MAXRES
Hour: 0 - 120

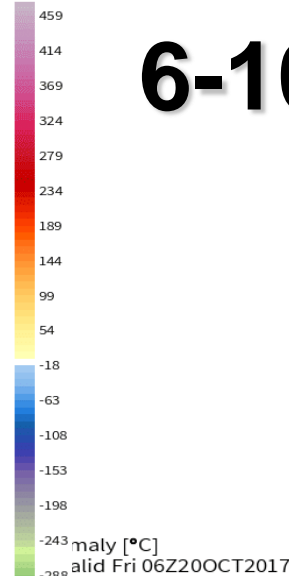
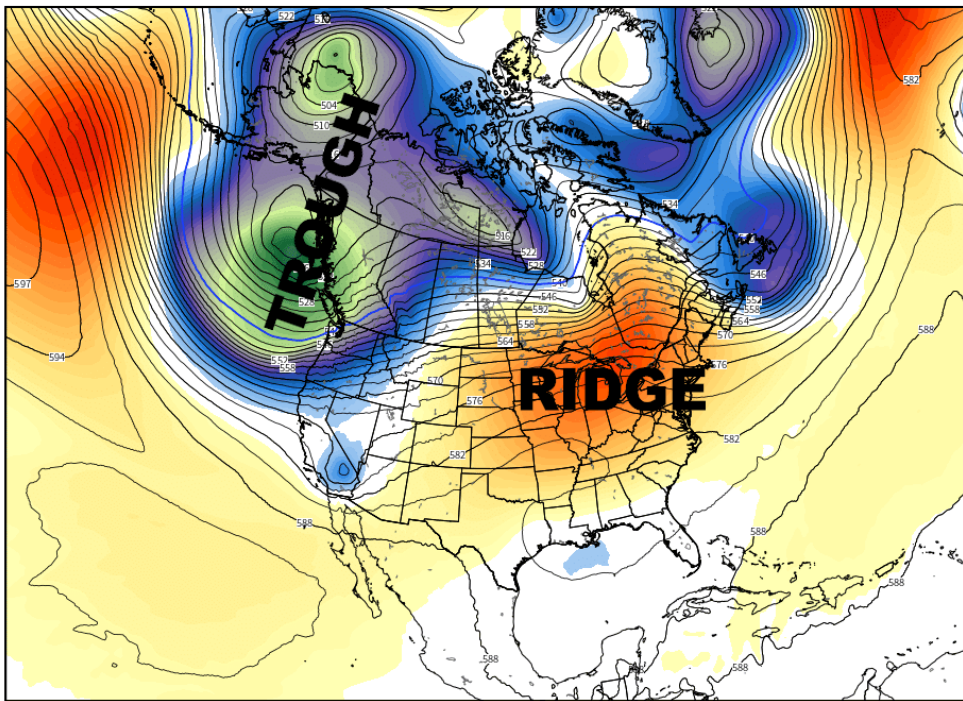


120 Hour Total Precipitation (in)
Valid: 00z Fri 13 Oct 2017 - 00z Wed 18 Oct 2017

ECMWF-MAXRES
Hour: 0 - 120



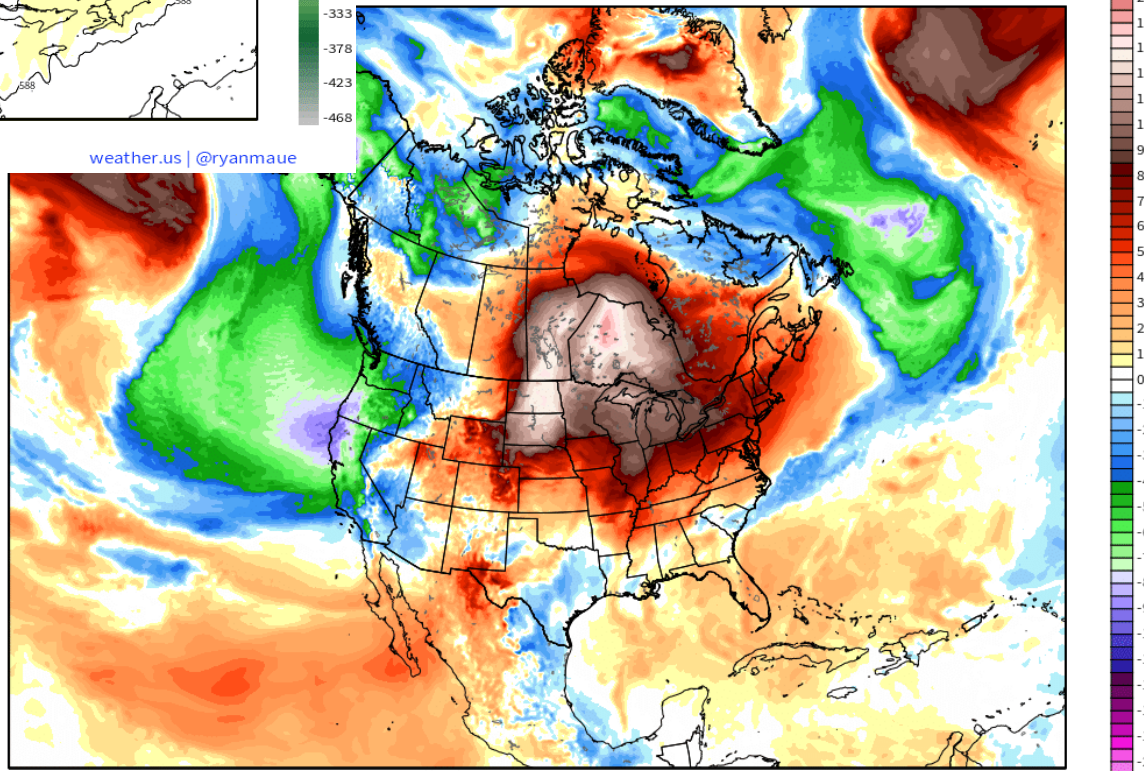
6-10 DAY



Min|Max: -11.3° | 19.7°C

This service is based on data and products of the European Centre for Medium-range Weather Forecasts (ECMWF)

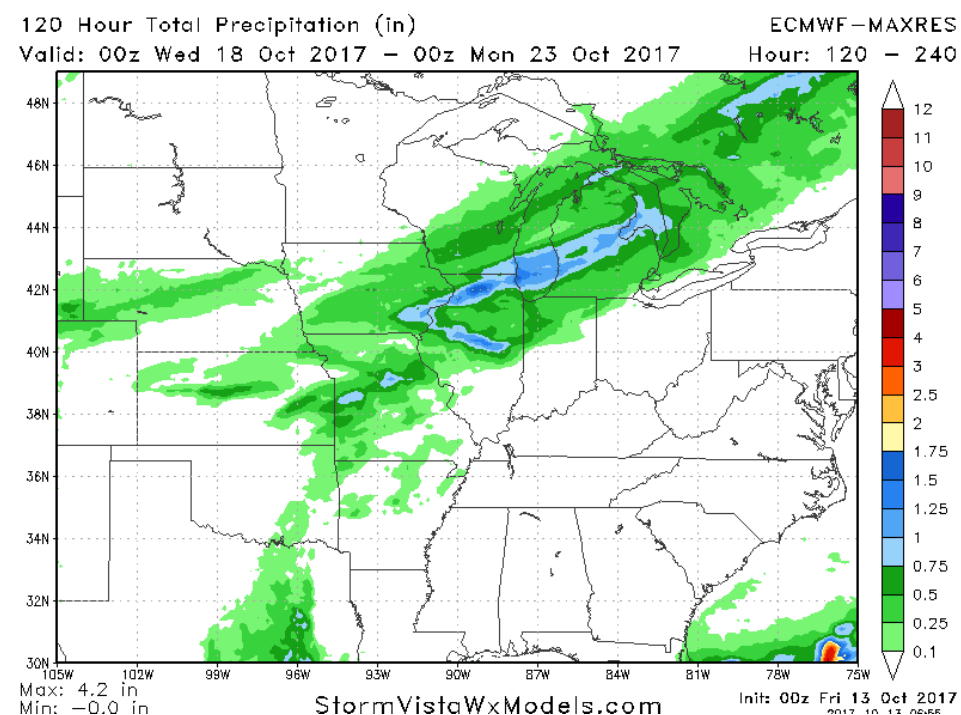
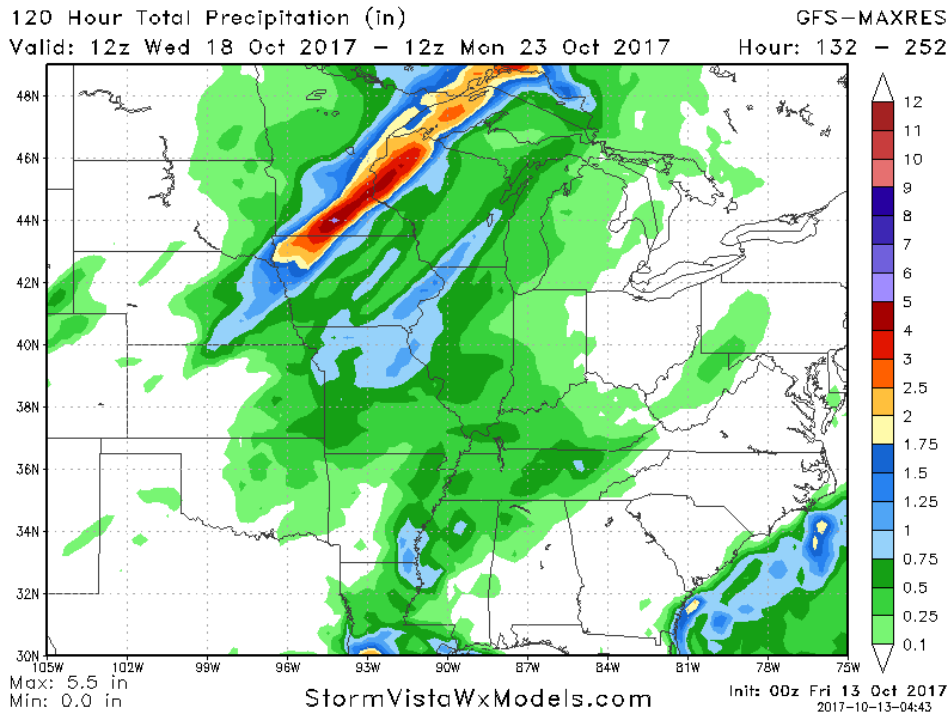
weather.us | [@ryanmaue](https://twitter.com/ryanmaue)



This service is based on data and products of the European Centre for Medium-range Weather Forecasts (ECMWF)

weather.us | [@ryanmaue](https://twitter.com/ryanmaue)

6-10 DAY RAINFALL ...



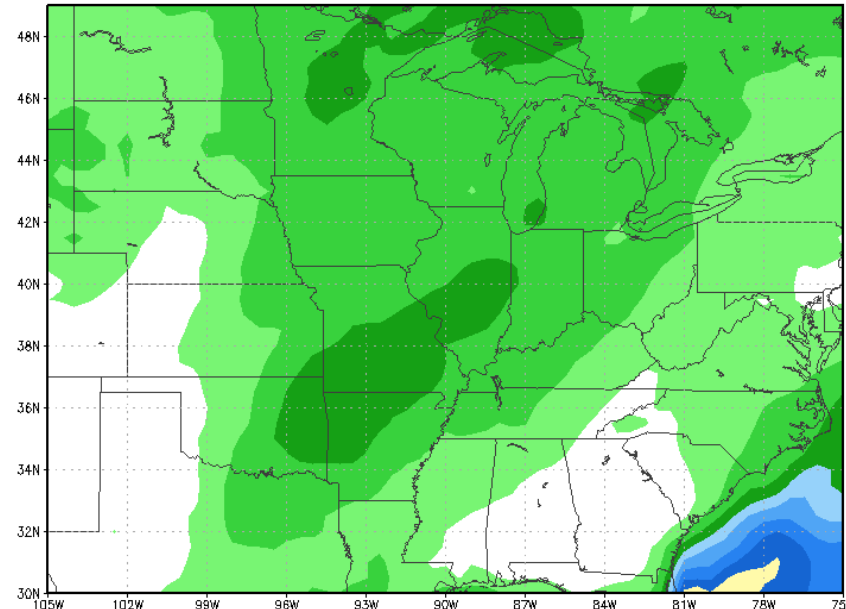
6-10 DAY ENSEMBLES –

120 Hour Total Precipitation (in)

Valid: 00z Wed 18 Oct 2017 – 00z Mon 23 Oct 2017

GFS-ENS-MAXRES

Hour: 120 – 240



Max: 2.0 in
Min: 0.0 in

StormVistaWxModels.com

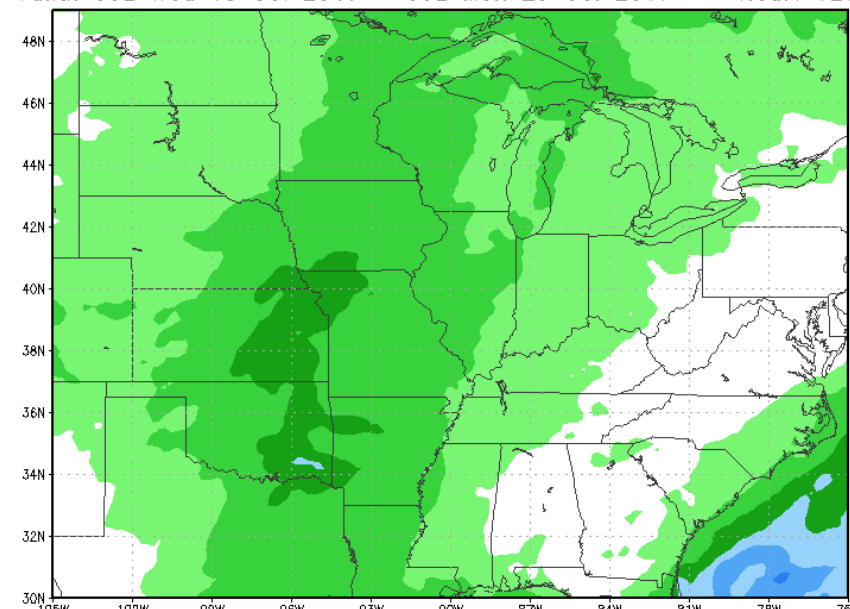
Init: 00z Fri 13 Oct 2017
2017-10-13-05:20

120 Hour Total Precipitation (in)

Valid: 00z Wed 18 Oct 2017 – 00z Mon 23 Oct 2017

ECMWF-EPS-MAXRES

Hour: 120 – 240



Max: 1.3 in
Min: 0.0 in

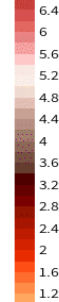
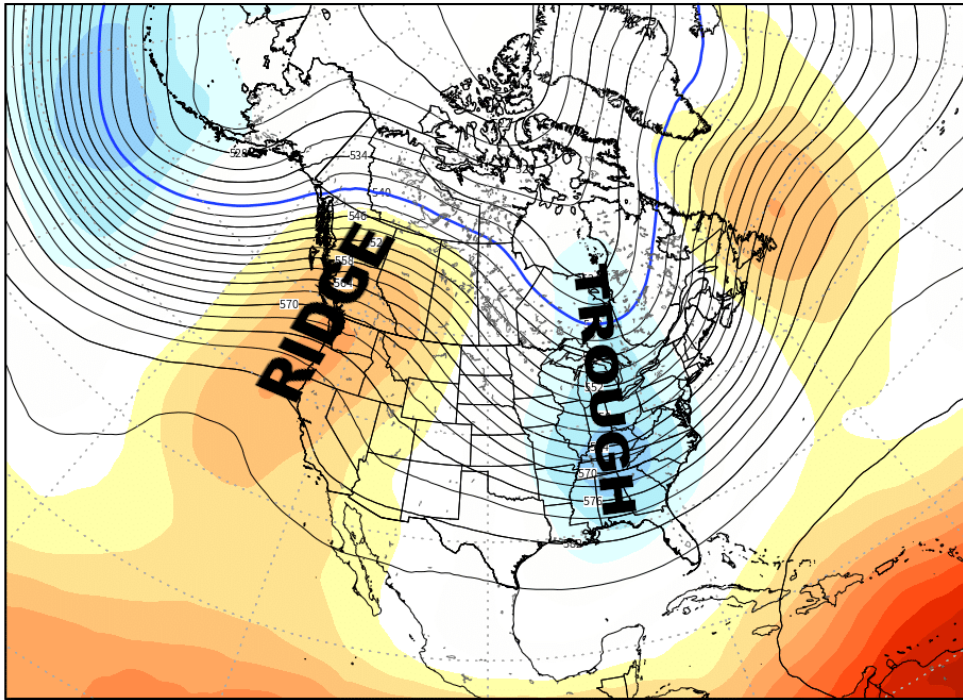
StormVistaWxModels.com

Init: 00z Fri 13 Oct 2017
2017-10-13-07:41

500 mb map shows trough moves into midwest and northeast US by OCT 26-27

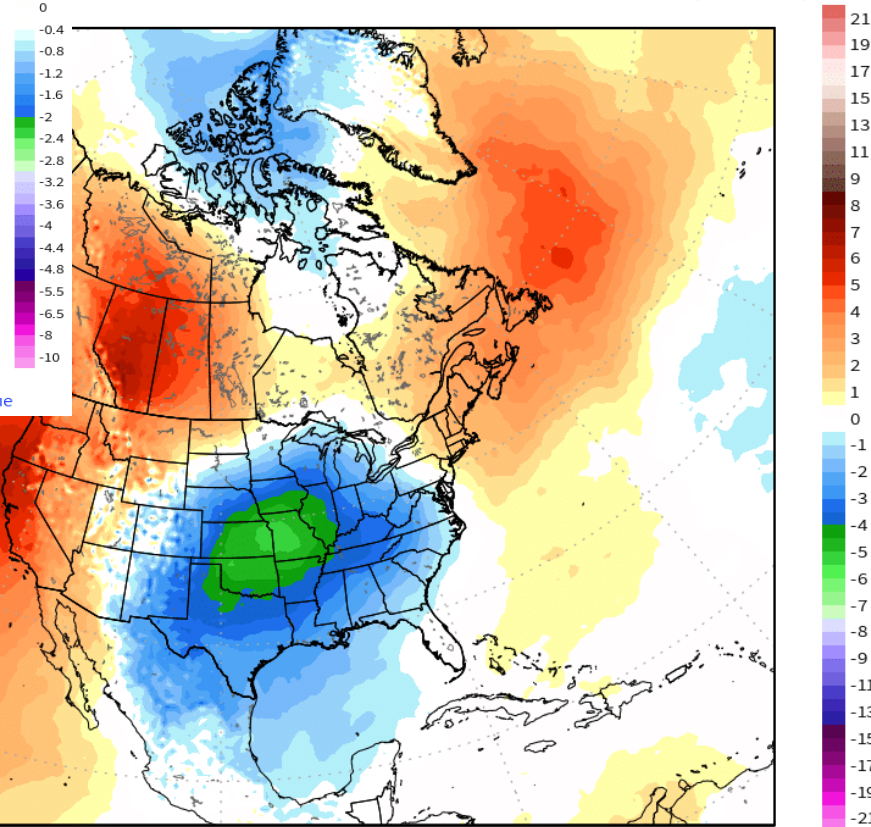
ECMWF EPS Ensemble Mean 500 hPa Geopotential Height [dm] & Normalized Anomaly [std devs] | 1997-2016 M-Climate Hindcast Climo
Init: 00Z13OCT2017 -- [336] hr --> Valid Fri 00Z27OCT2017

Min|Max: -1.0 | 2.3 std dev



ly [°C] | Ensemble Mean | 1997-2016 M-Climate Hindcast Climo
Fri 12Z27OCT2017

Min|Max -5.3° | 7.4°C



This service is based on data and products of the European Centre for Medium-range Weather Forecasts (ECMWF)

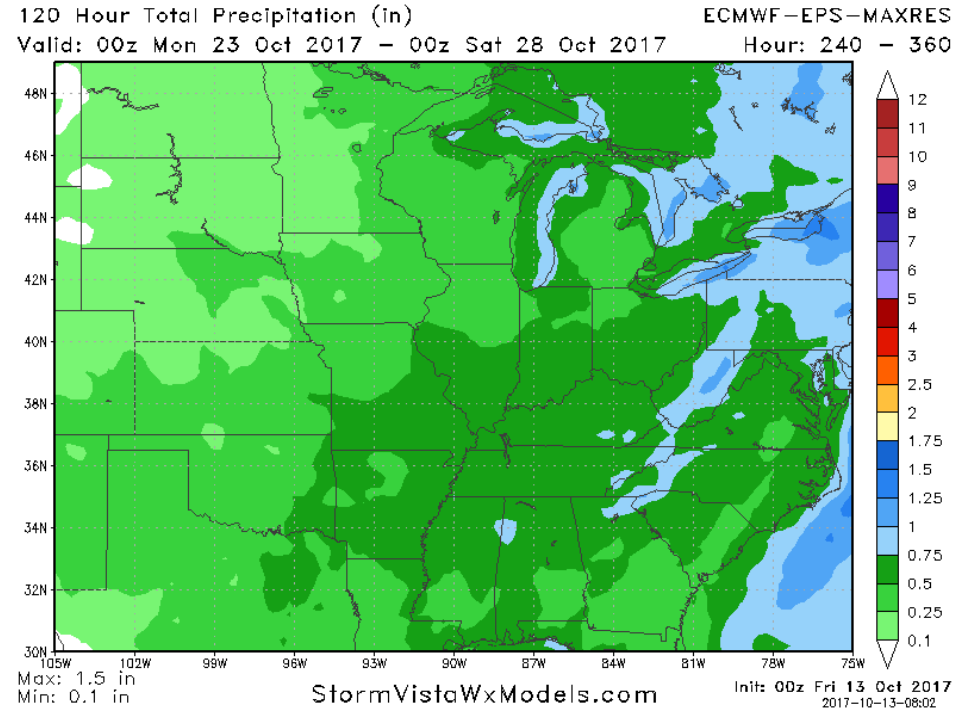
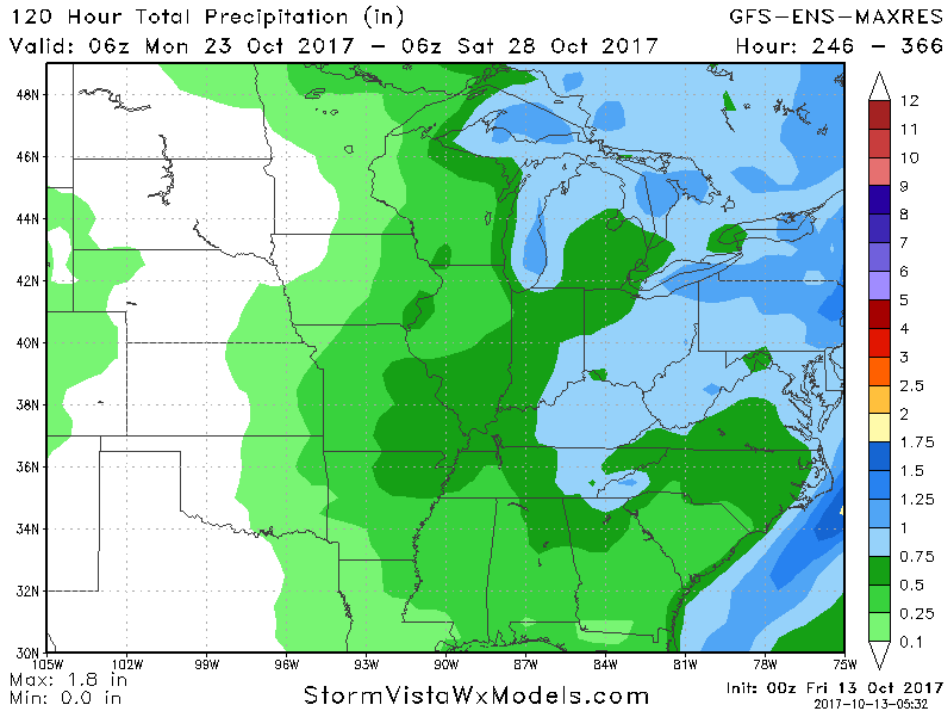
weather.us | @ryanmaue

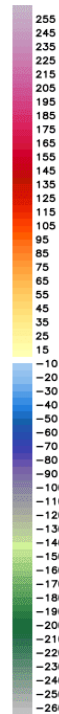
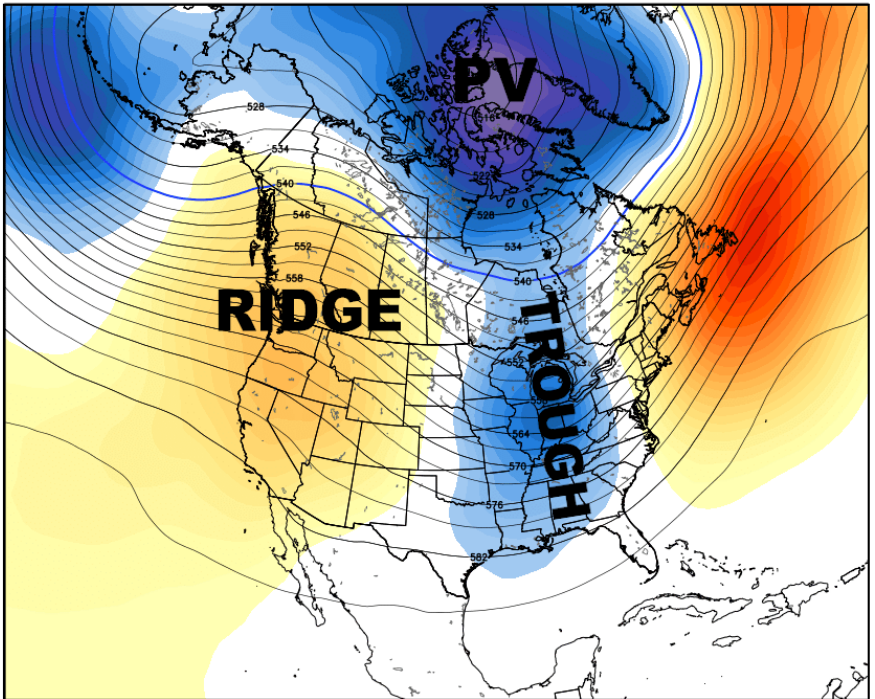
This service is based on data and products of the European Centre for Medium-range Weather Forecasts (ECMWF)

weather.us | @ryanmaue

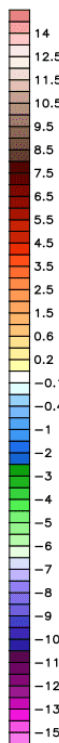
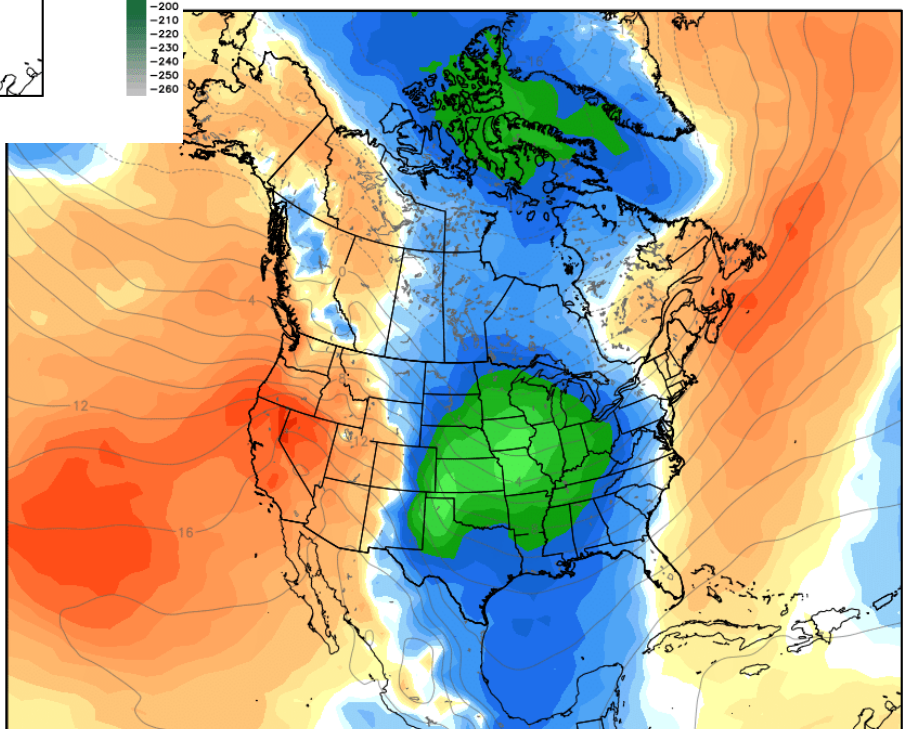
11-15 DAY ENSEMBLES

GFS (left) EURO (right) moderate wet over Midwest mid OCT

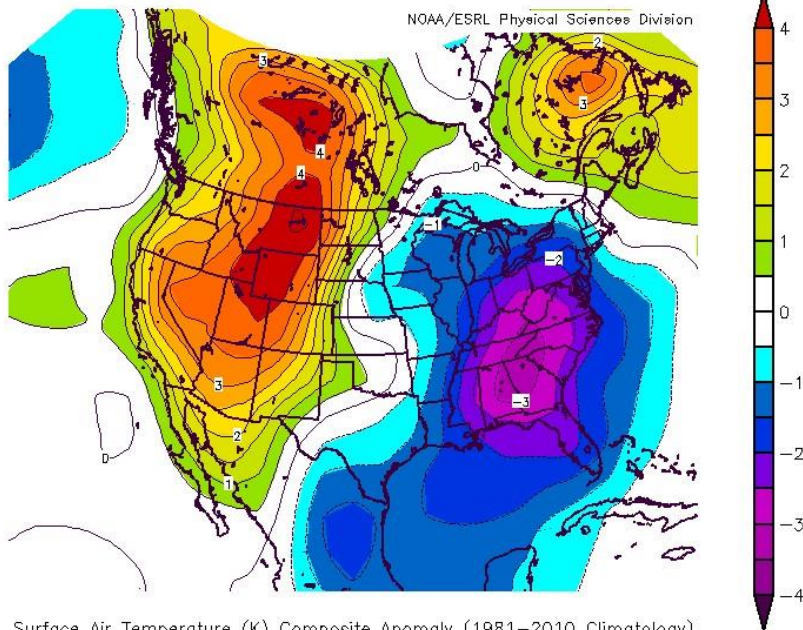




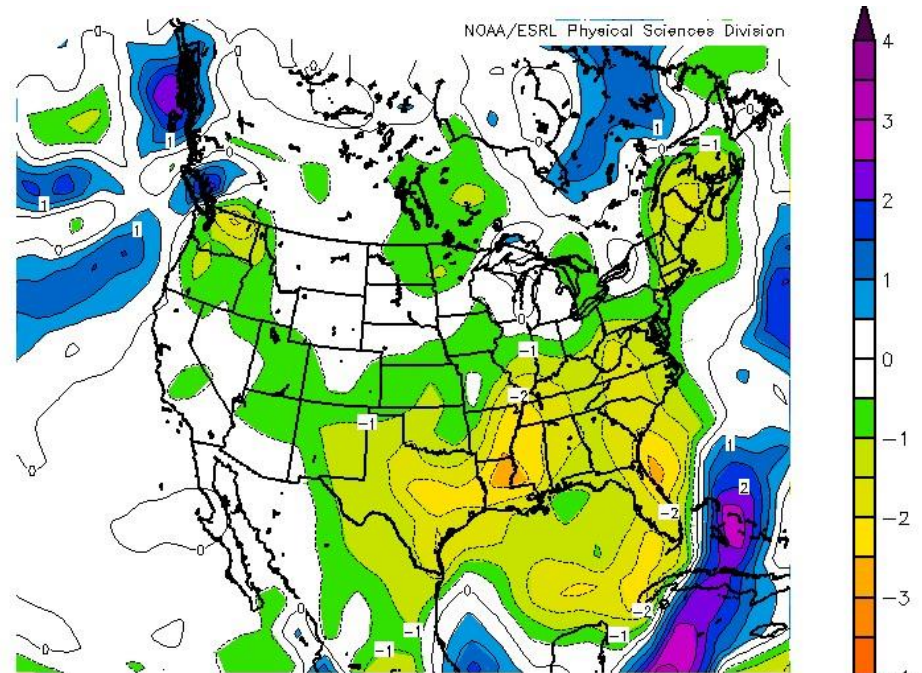
Ensemble Mean 850 hPa Temperature Anomaly [°C] & Anomaly
[408] hr --> Sun 00Z29OCT2017
Min|Max: -4.3 | 4.4 °C



16-20D Rollover Model from 10/12...

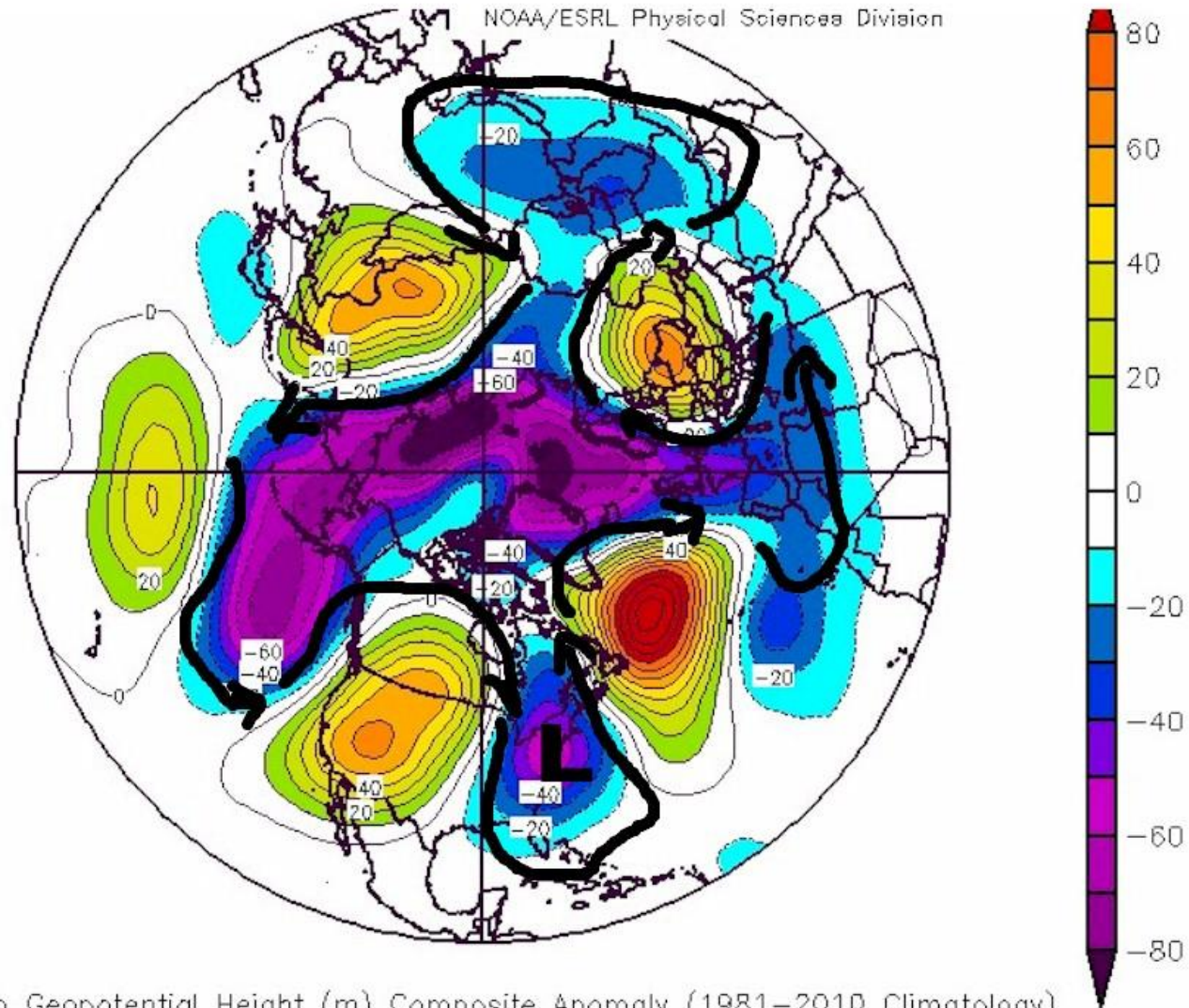


Surface Air Temperature (K) Composite Anomaly (1981-2010 Climatology)
CPC Analog 16-20 Day Composite
NCEP/NCAR Reanalysis



Surface Precipitation Rate (mm/day) Composite Anomaly (1981-2010 Climatology)
CPC Analog 16-20 Day Composite
NCEP/NCAR Reanalysis

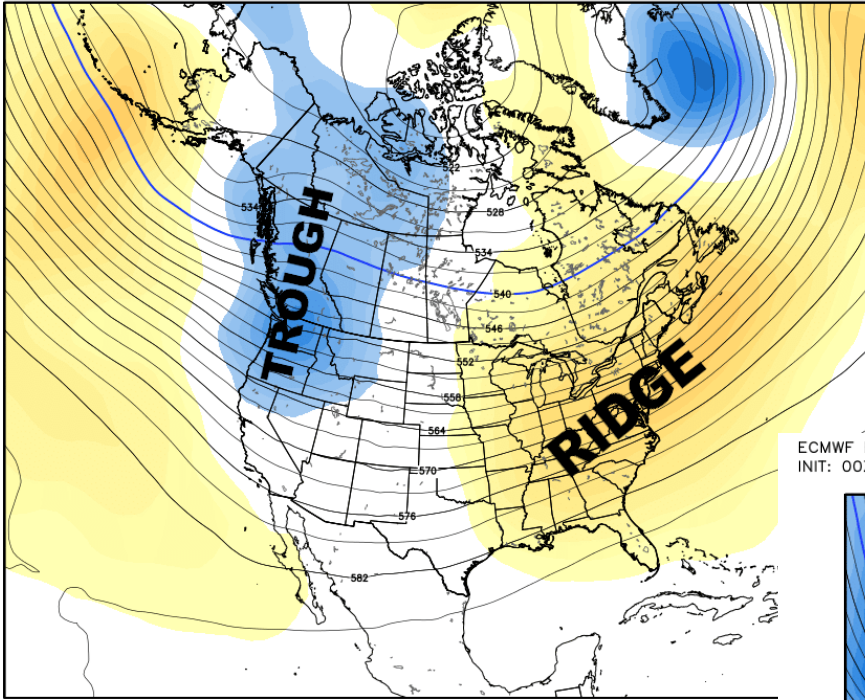
16-20D upper air/ Pattern-- shows deep trough over East coast/ cold pattern



OCT 12 EURO WEEKLIES 500 mb map valid NOV 12----- NOV 24

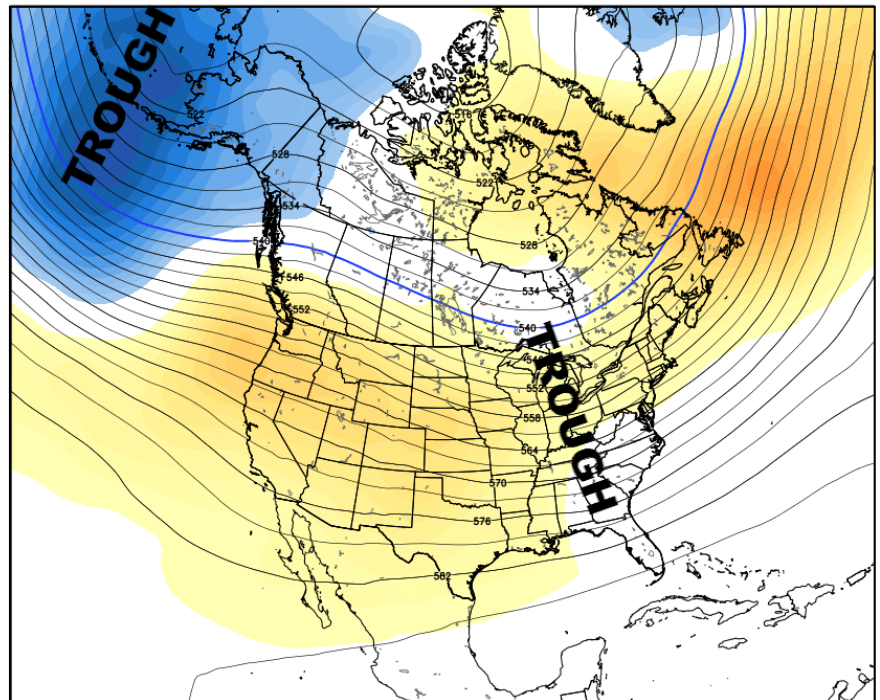
ECMWF EPS Monthly Ensemble Mean 500 hPa Geopotential Height [dm] & Anomaly [m]
INIT: 00Z12OCT2017 fx: [744] hr --> Sun 00Z12NOV2017

Min|Max: -46.7 | 62.5 m

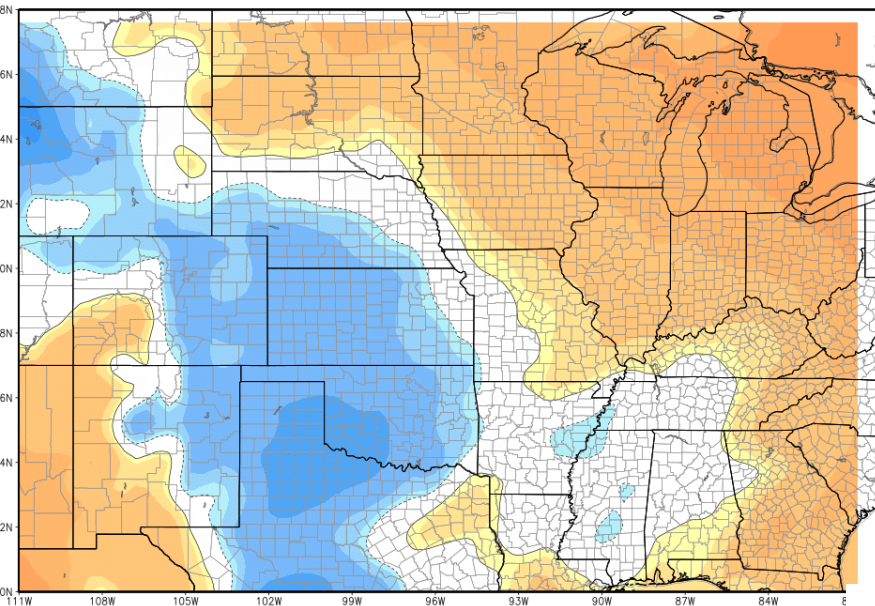
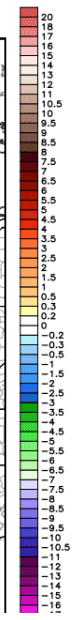


ECMWF EPS Monthly Ensemble Mean 500 hPa Geopotential Height [dm] & Anomaly [m]
INIT: 00Z12OCT2017 fx: [1032] hr --> Fri 00Z24NOV2017

Min|Max: -59.6 | 77.9 m



OCT 12- NEXT 30 DAYS TEMP ANOMALIES EURO WEEKLIES

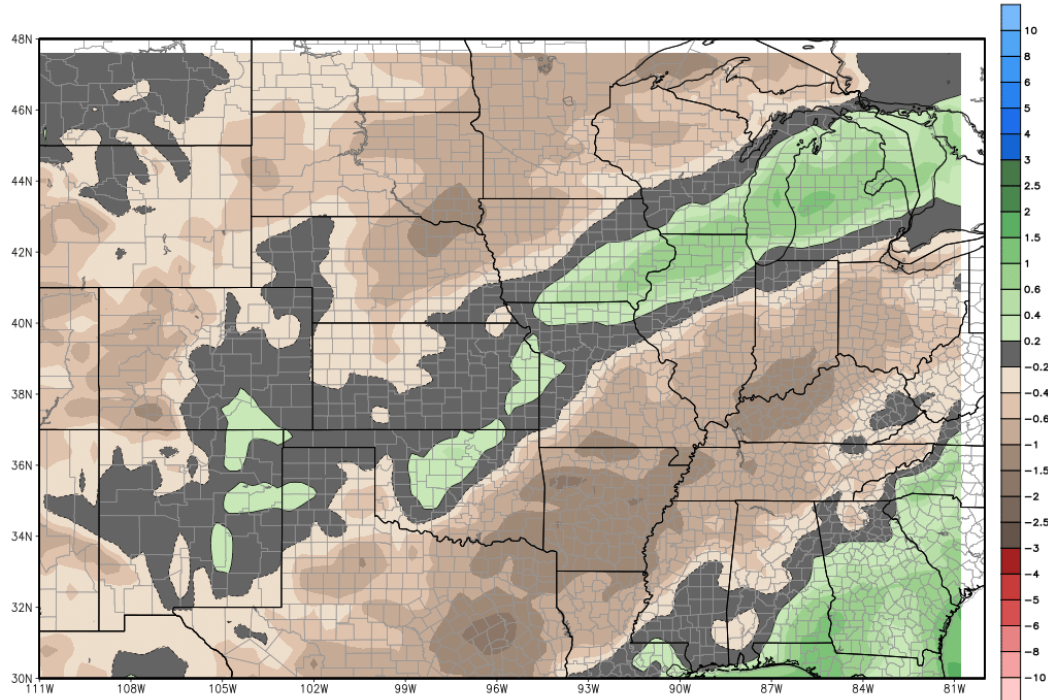


ECMWF EPS Ensemble Mean 32-day Avg Precipitation Anomaly [inch]
Init: 00Z12OCT2017 -- [768] hr --> Valid on Mon 00Z13NOV2017 Day 0 - Day 32

Min|Max Anom: -1.9 | 2.1 inch

Average between 00Z12OCT2017-00Z13NOV2017 | ECMWF EPS 1996-2015 Hindcast Climatology

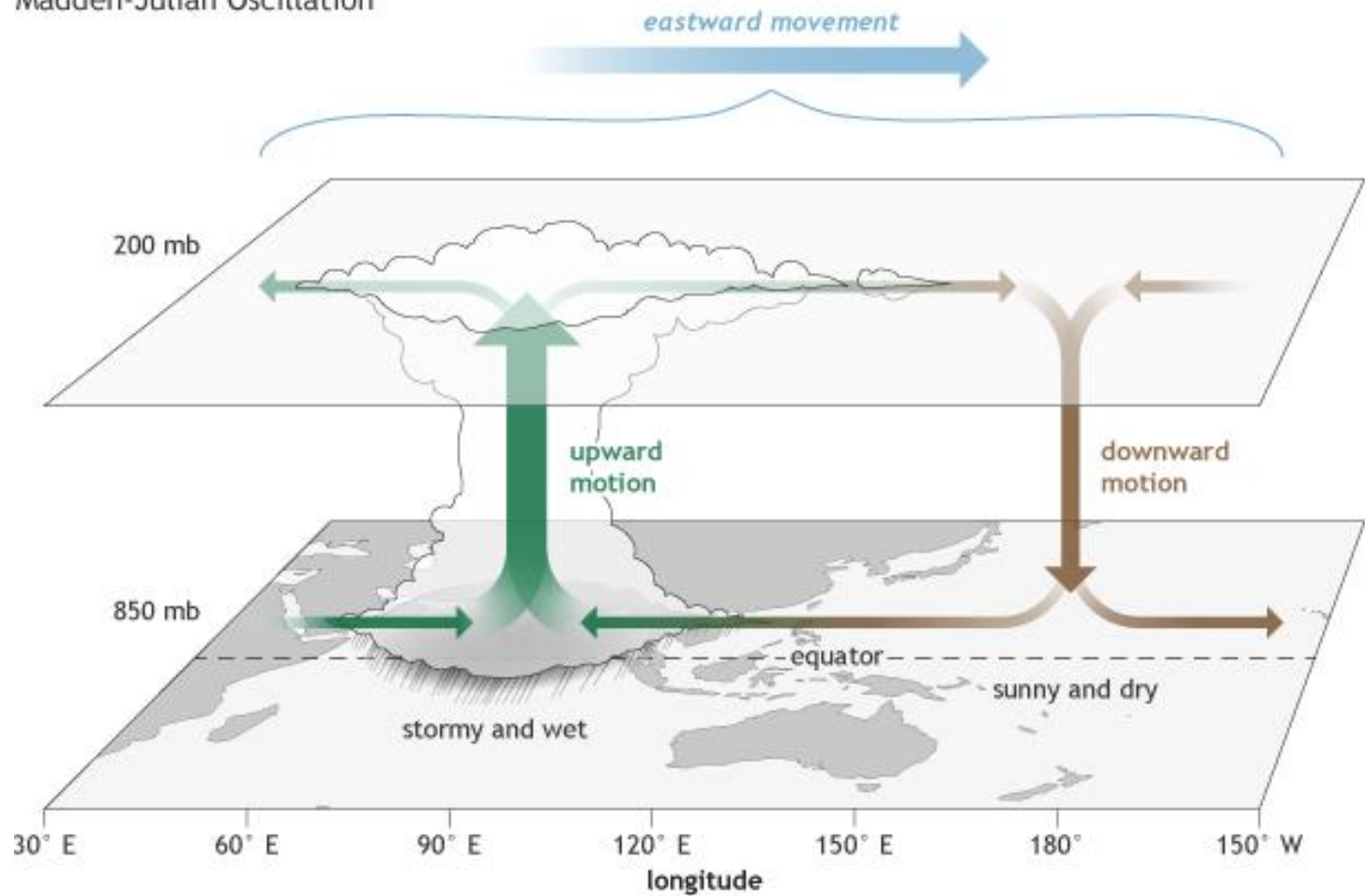
OCT 12 .. EURO WEEKLIES next 30 day PRECIP ANOMALIES



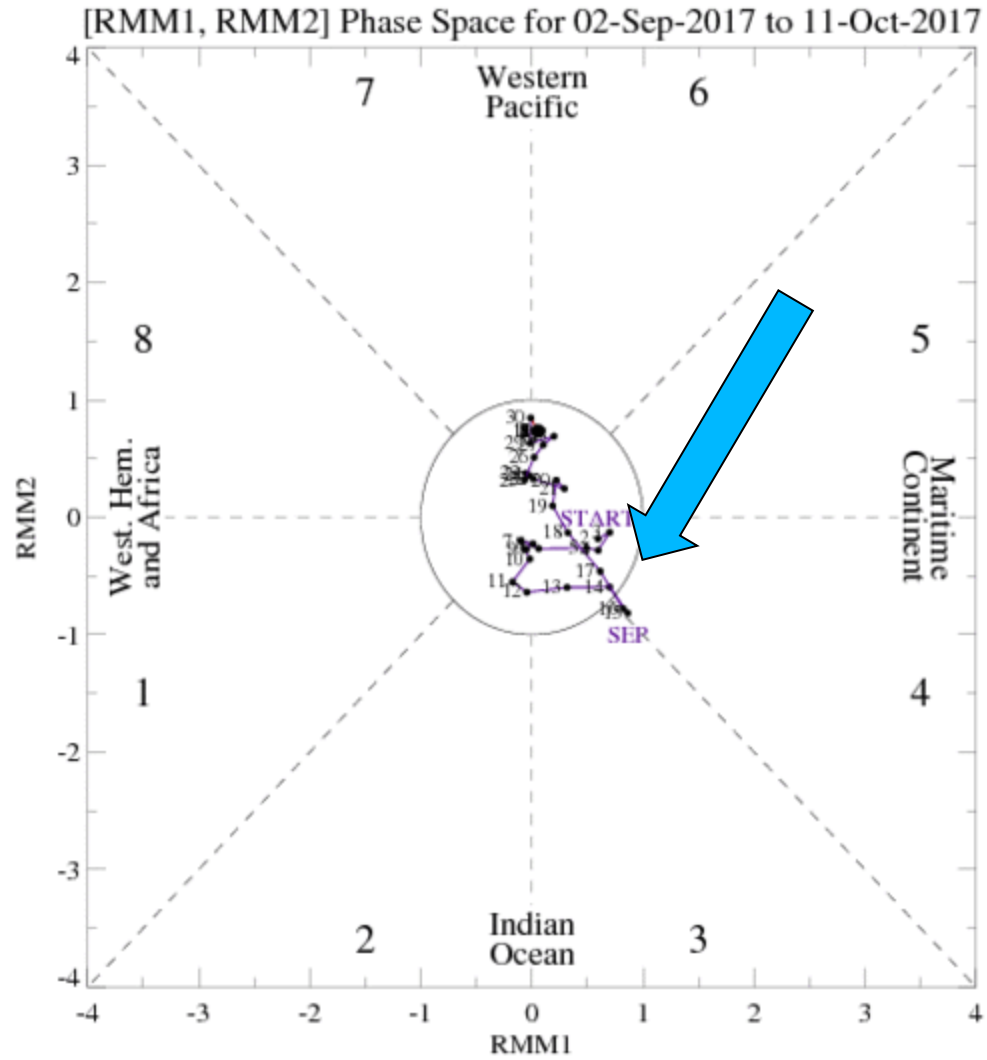
Accumulation between 00Z12OCT2017-00Z13NOV2017 | ECMWF EPS 1996-2015 Hindcast Climatology

LETS TALK MJO/ENSO

Madden-Julian Oscillation

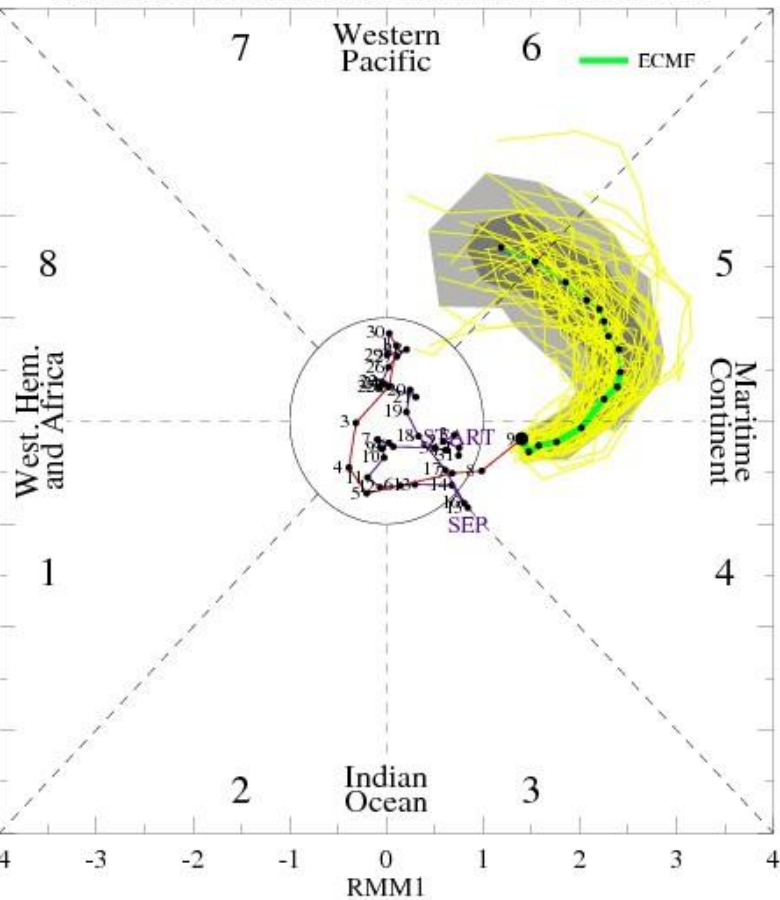


MJO STAYS WEAK

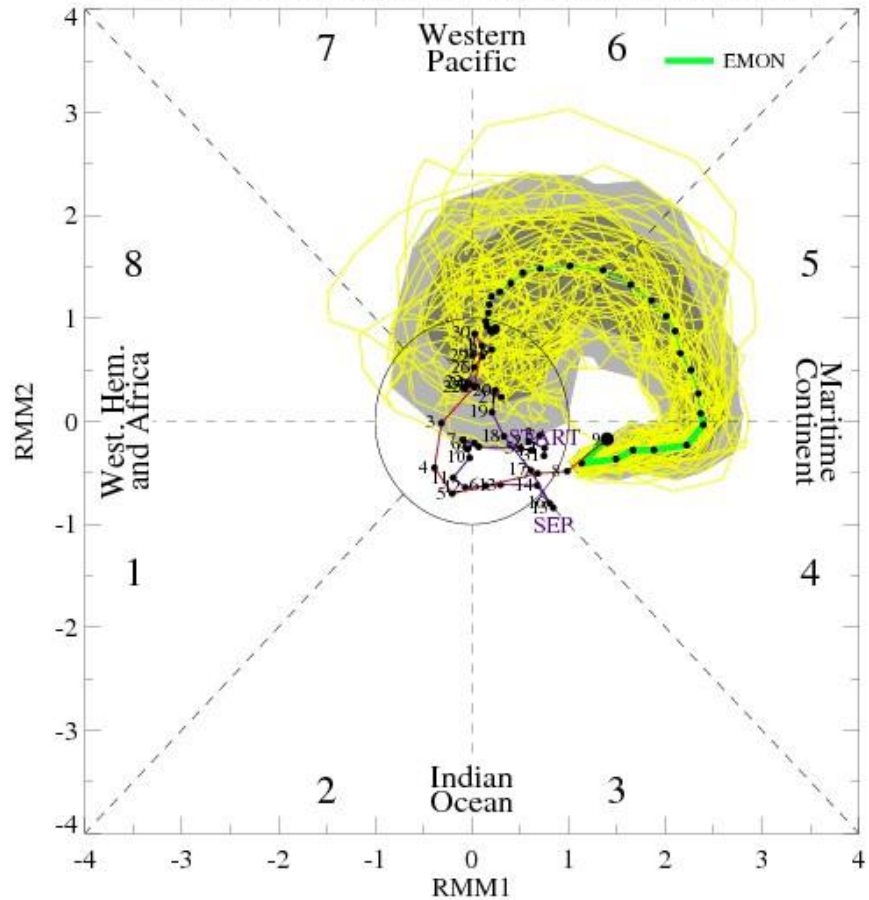


MJO WAKES UP STRONG PHASE 4 5 6 BY 10 NOV... WHICH MEANS WHAT?

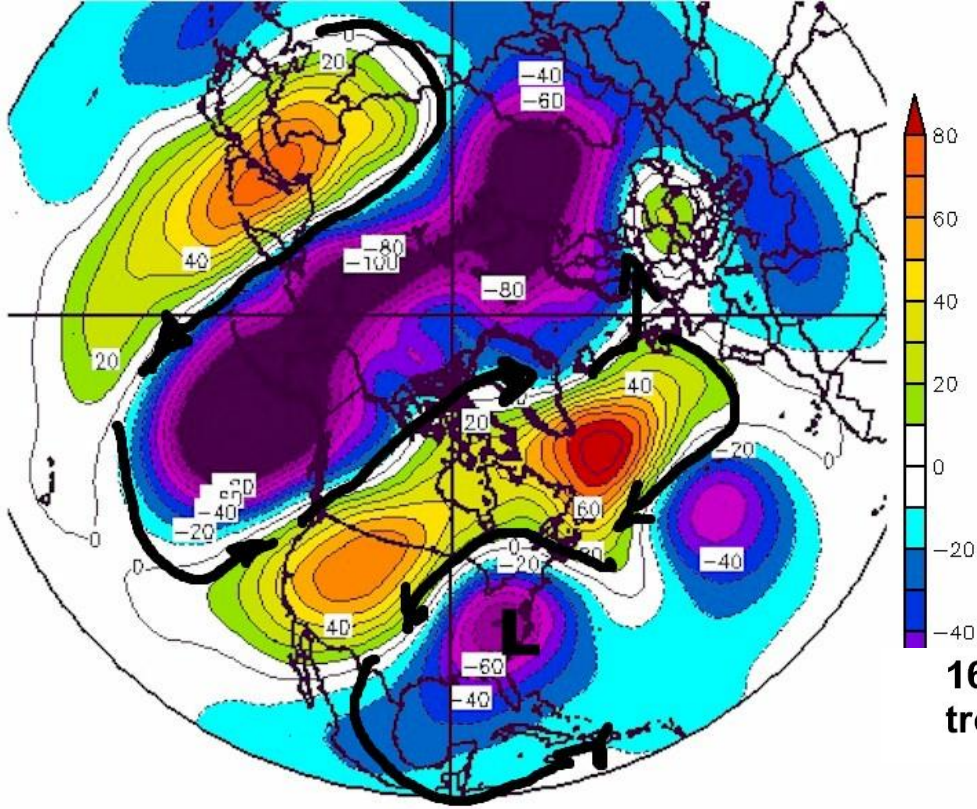
MJO Index Forecast for 10Oct2017-24Oct2017



MJO Index Forecast for 10Oct2017-10Nov2017

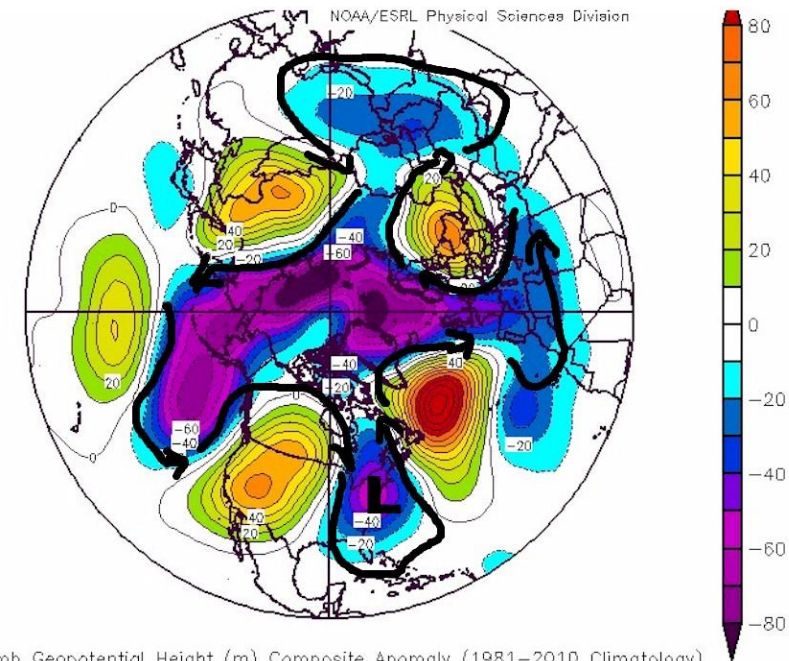


LATE OCT / EARLY NOV MAJOR PHASE 6 UPPER AIR PATTERN DEEP TROUGH OVER EASTERN US



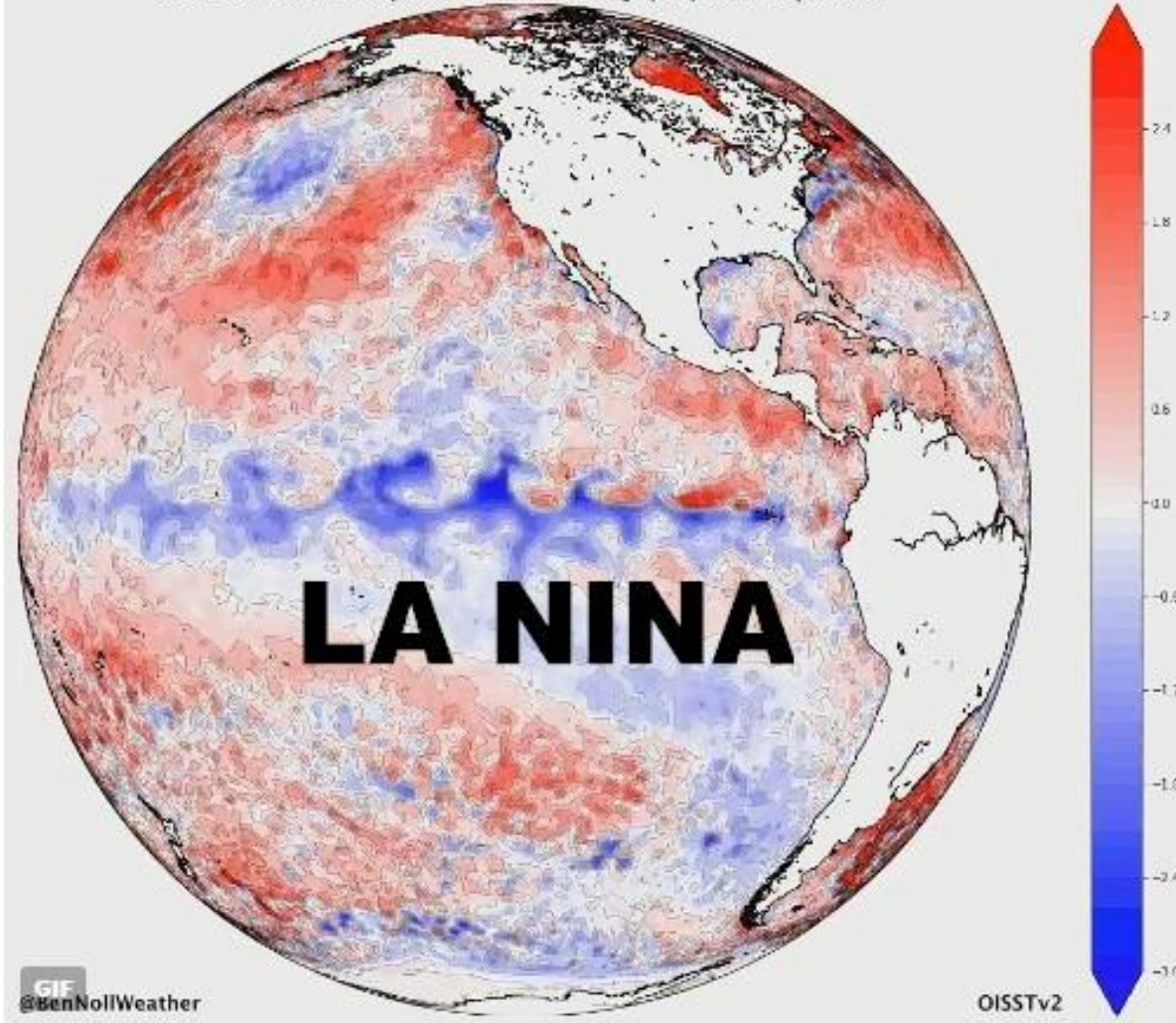
500mb Geopotential Height (m) Composite Anomaly (1981-2010 Climatology)
CPC Analog 16-20 Day Composite
NCEP/NCAR Reanalysis

16-20D upper air/ Pattern-- shows deep trough over East coast/ cold pattern



500mb Geopotential Height (m) Composite Anomaly (1981-2010 Climatology)
CPC Analog 16-20 Day Composite

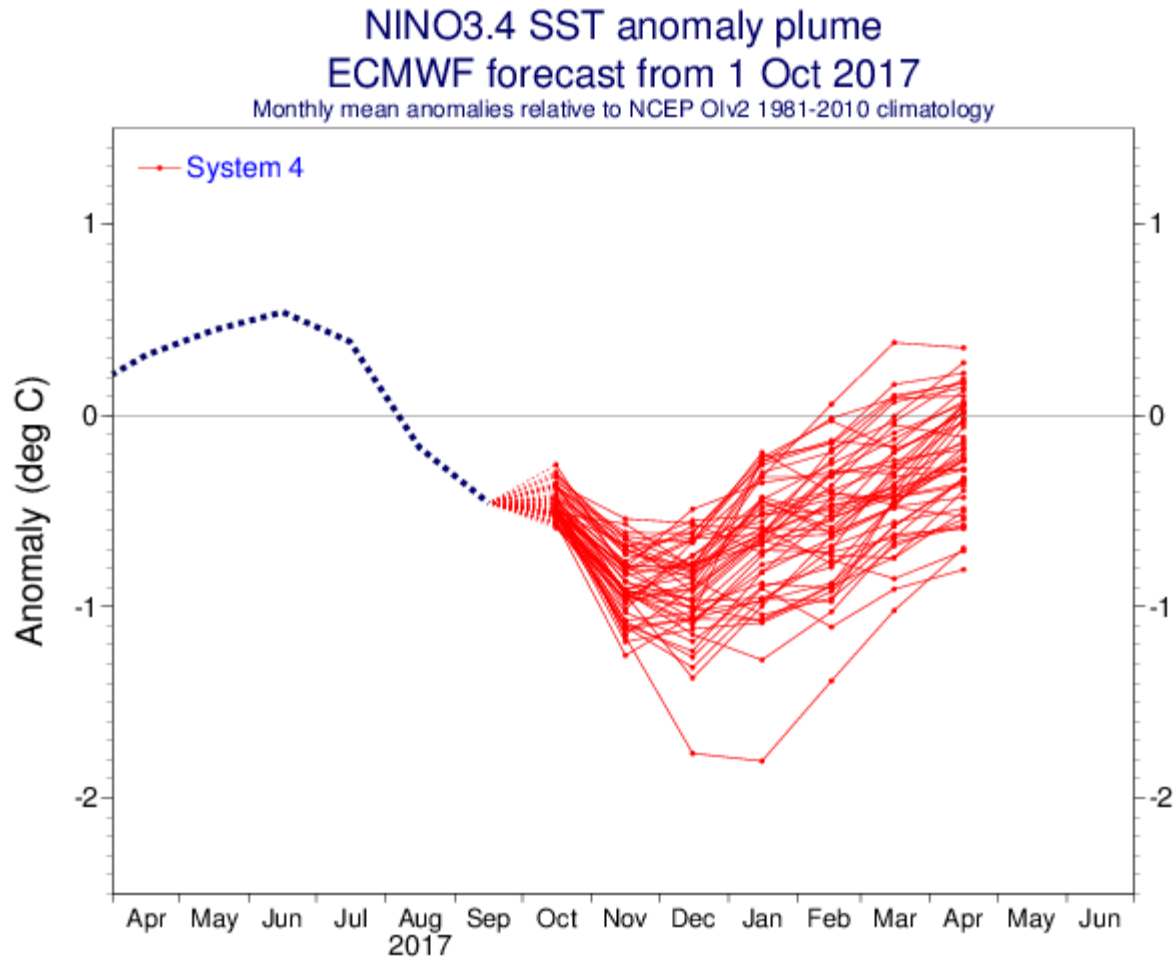
Sea Surface Temperature Anomaly (°C), 10 Sep 2017



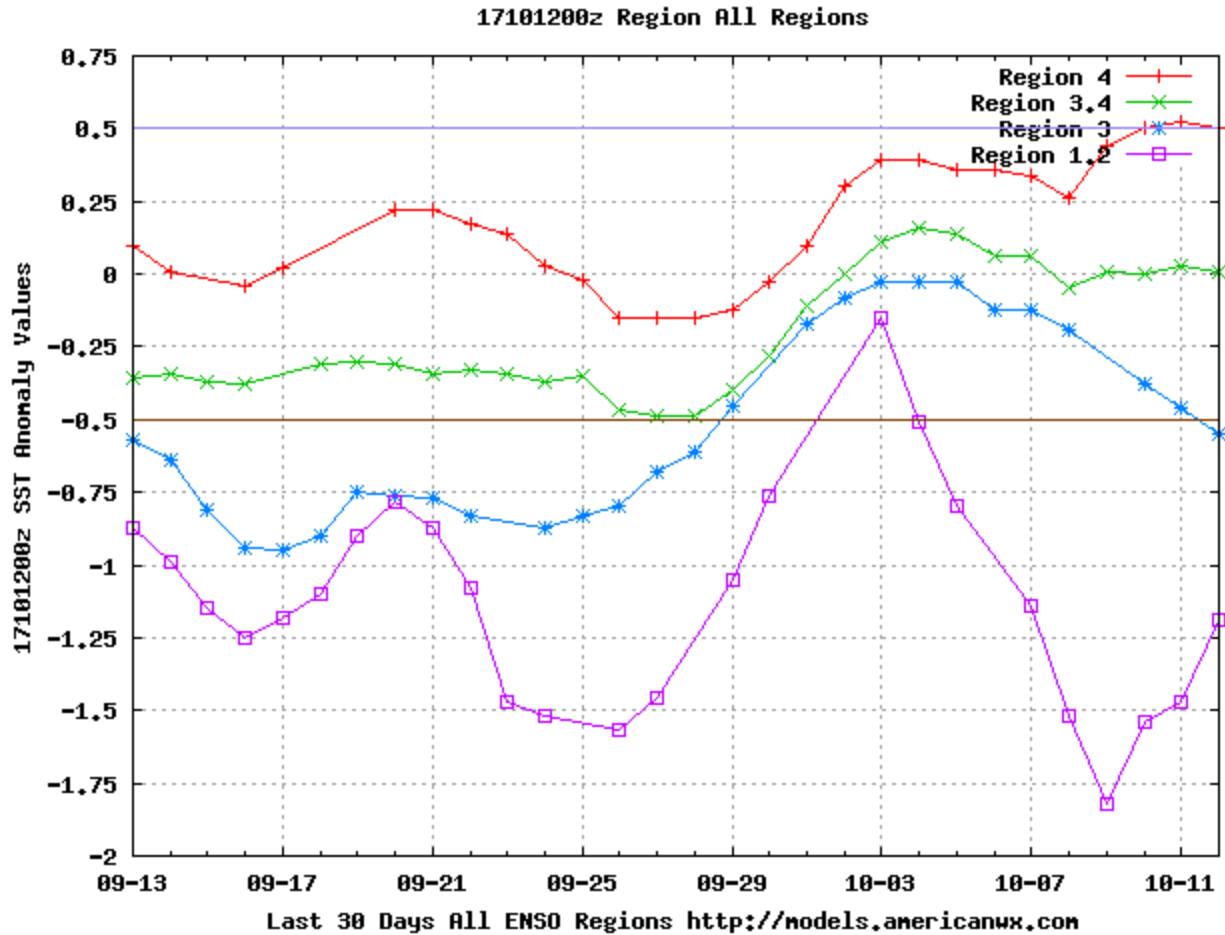
6:29 AM - 13 Sep 2017

LATEST EURO MODEL PROJECTION = **

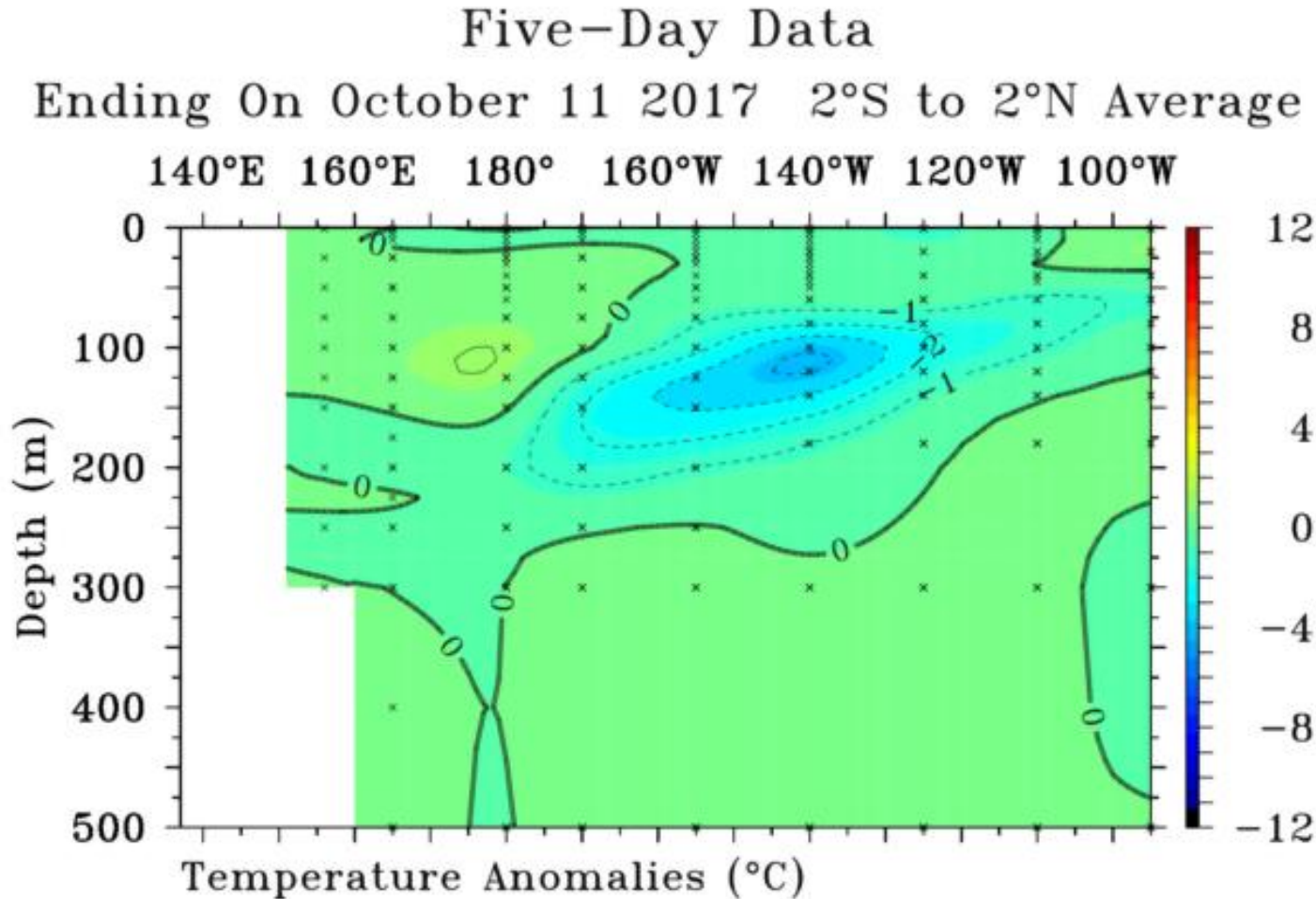
WEAK LA NINA BY DEC 2018.. THEN NEUTRAL BY MARCH / APRIL



ACTUAL SEA SURFACE TEMP ANOMALIES – not projection .. Large area of cold water surface and sub surface

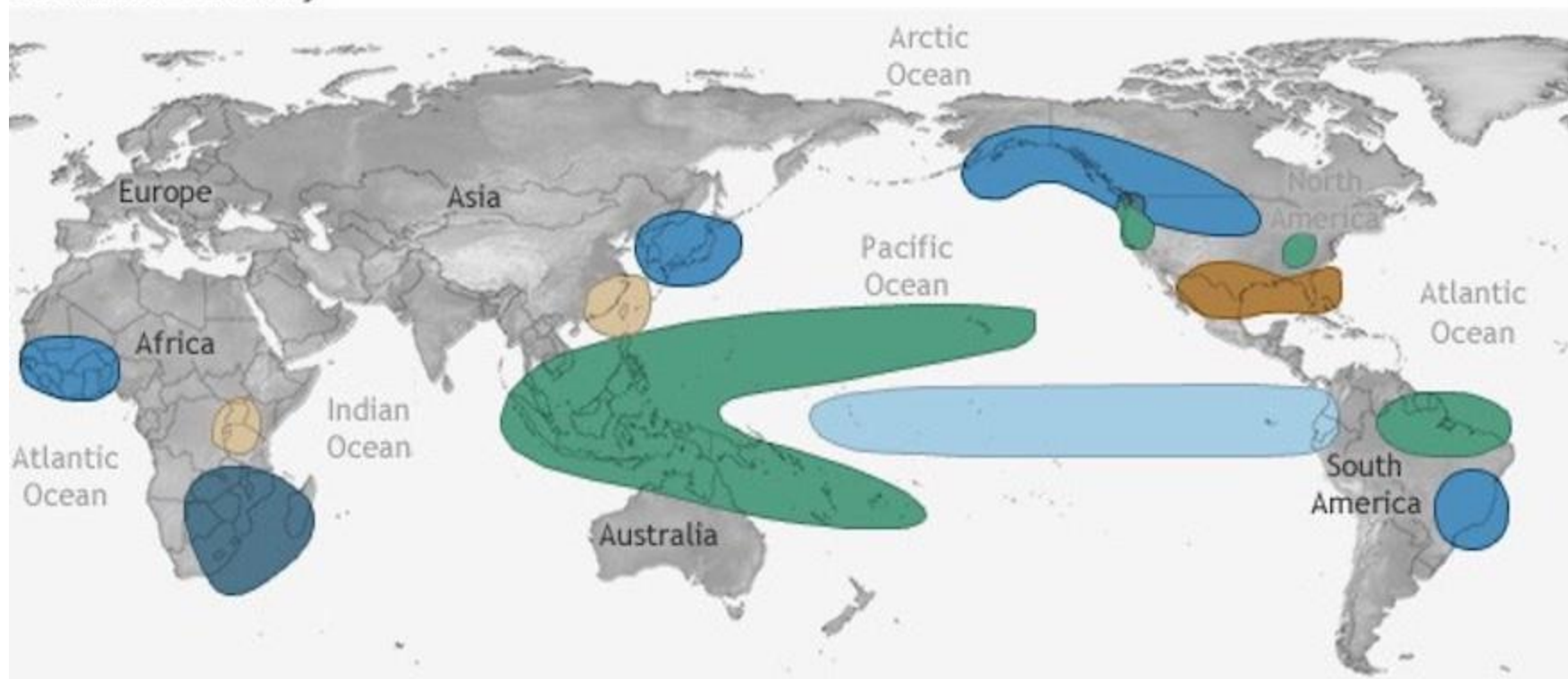


TAO – ACTUAL SEA SURFACE TEMP ANOMALIES – not projection .. Large area of cold water surface and sub surface



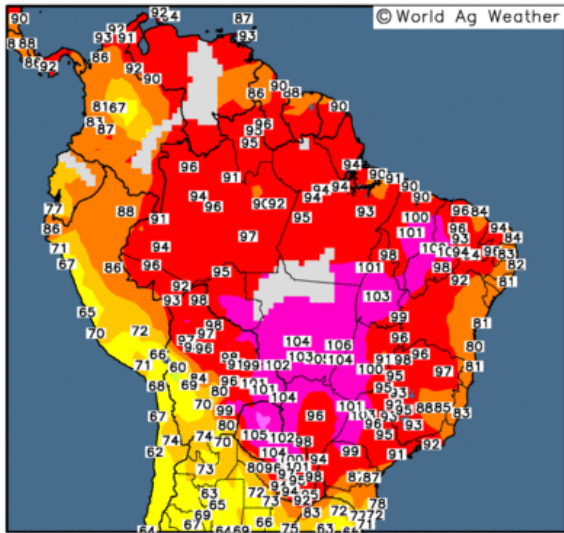
LA NIÑA CLIMATE IMPACTS

December-February



Observed Maximum Temperature (°F)

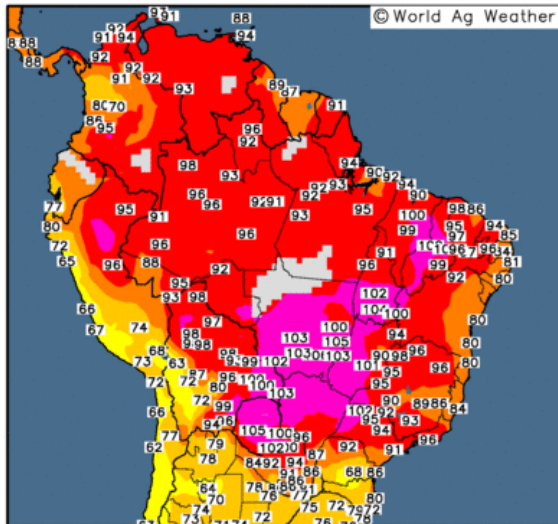
11 Oct 2017



HEAT WAVE IN BRAZIL
enhanced by prolonged
dryness of past several
seasons

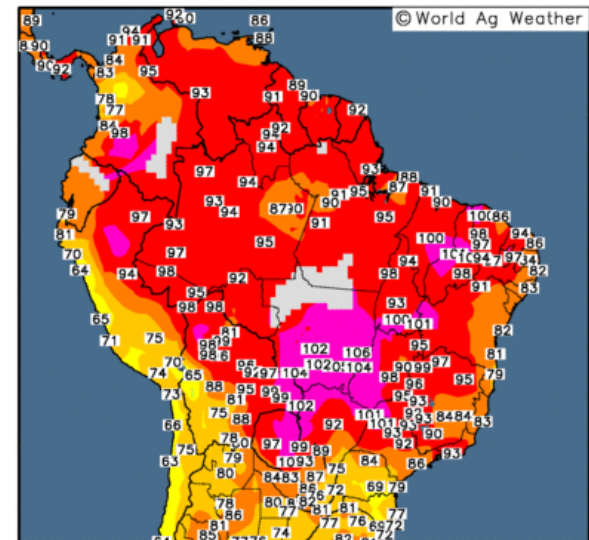
Observed Maximum Temperature (°F)

10 Oct 2017



Observed Maximum Temperature (°F)

9 Oct 2017



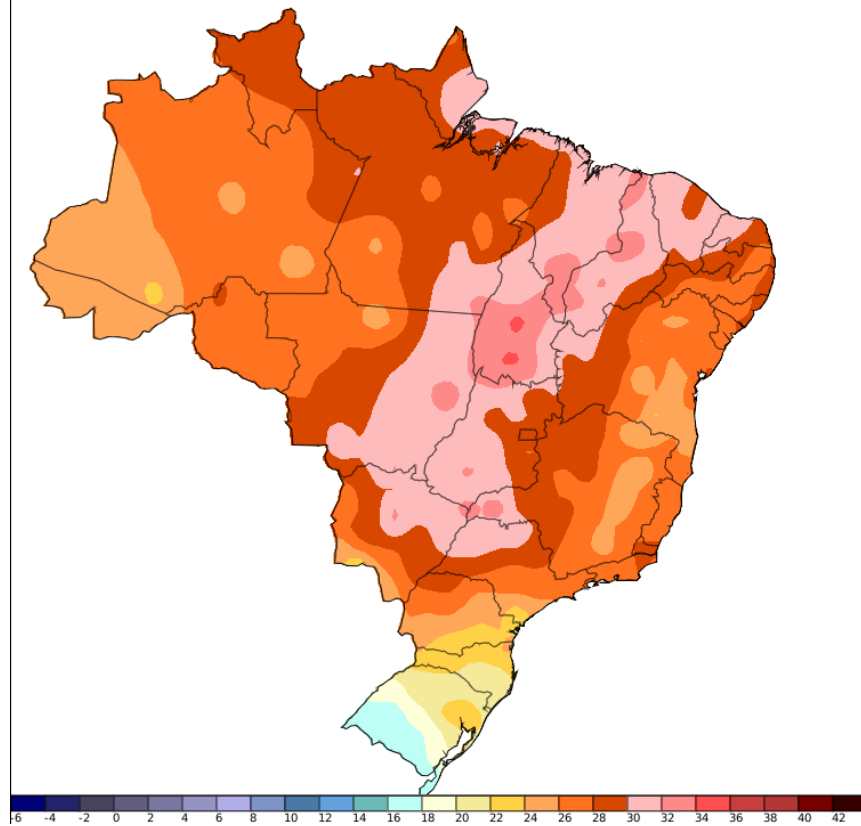
-30 -20 -10 0 10 20 25 30 35 40 50 60 70 80 90 100 110

Map updates daily by approximately 16:00 UTC

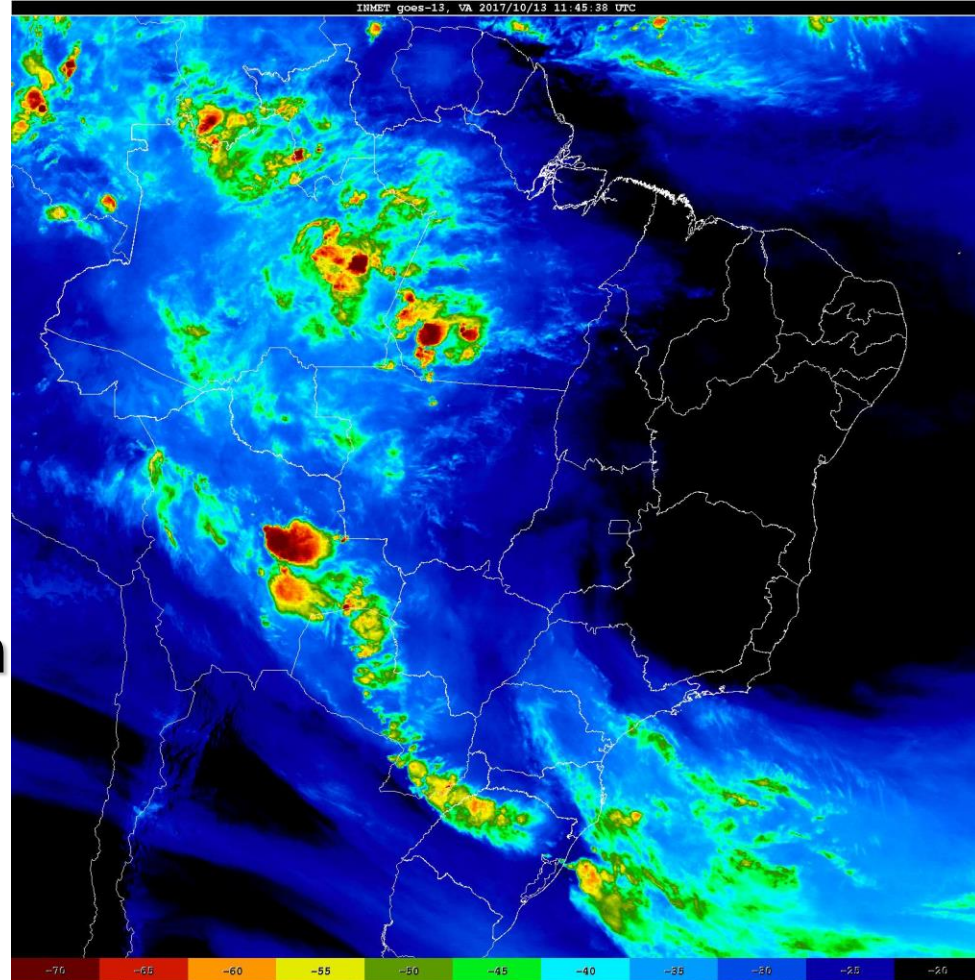
-30 -20 -10 0 10 20 25 30 35 40 50 60 70 80 90 100 110

Map updates daily by approximately 16:00 UTC

MAX TEMPS OCT 12- NOT AS HOT OVER BRAZIL INTERIOR



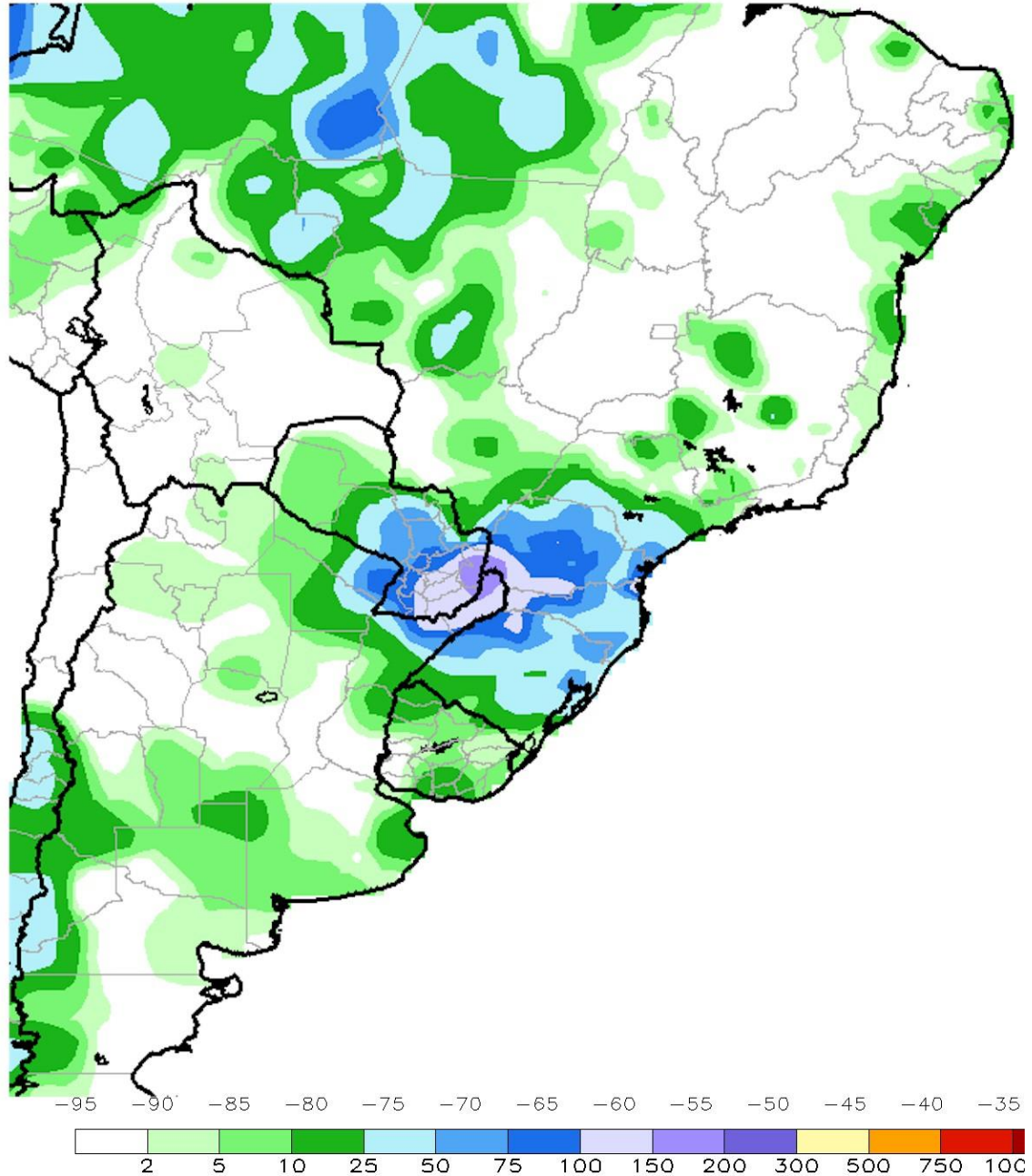
LINE OF STORMS from
RGDS into Paraguay



CPC Unified Gauge 7-Day Total Rainfall (mm)

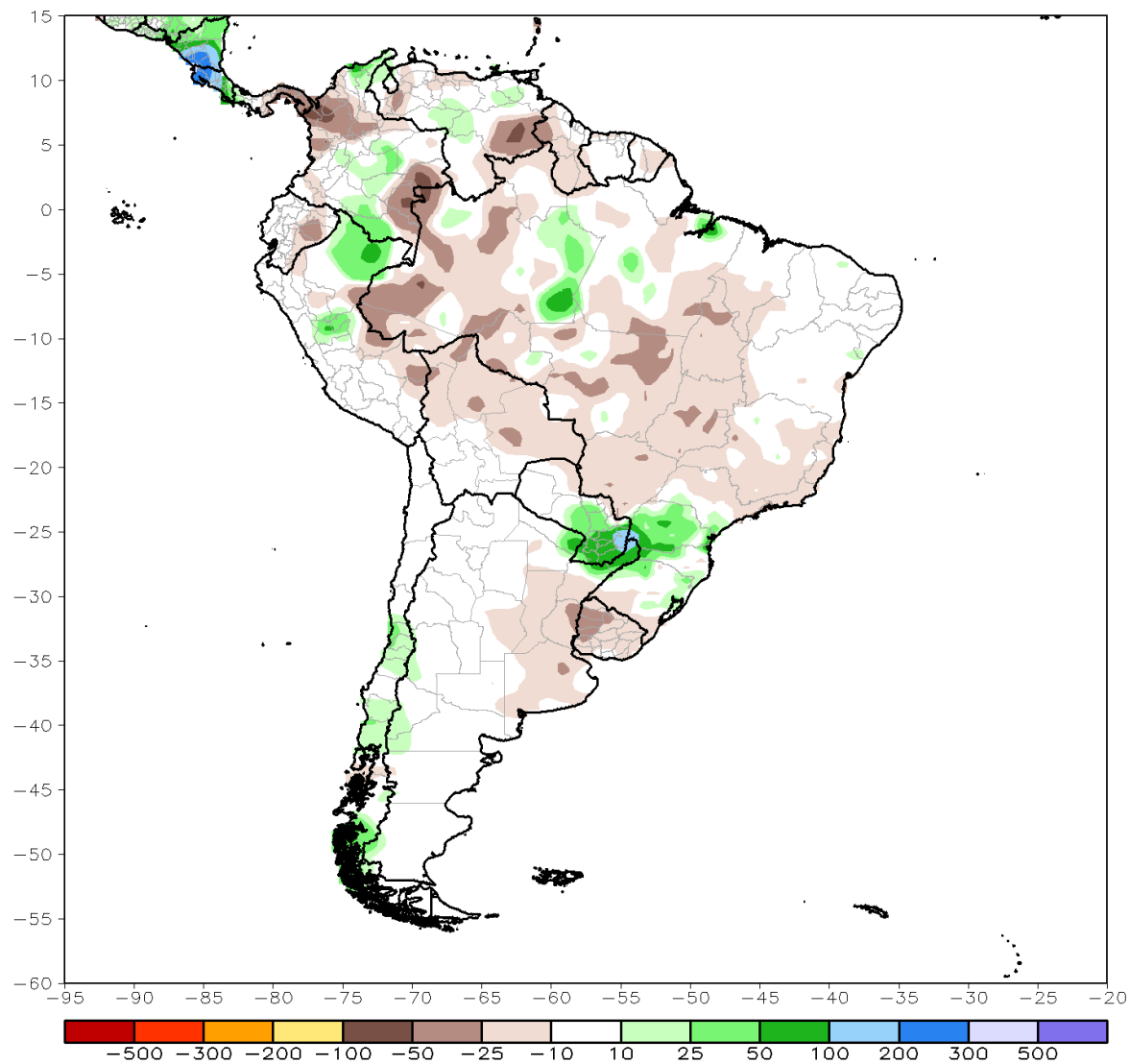
Period: 05Oct2017 - 11Oct2017

**25 - 150mm/ 1-5
inches over
eastern Parag
Corrientes in ne
ARG into sw
Parana**



CPC Unified Gauge 7-Day Total Rainfall Anomaly (mm)

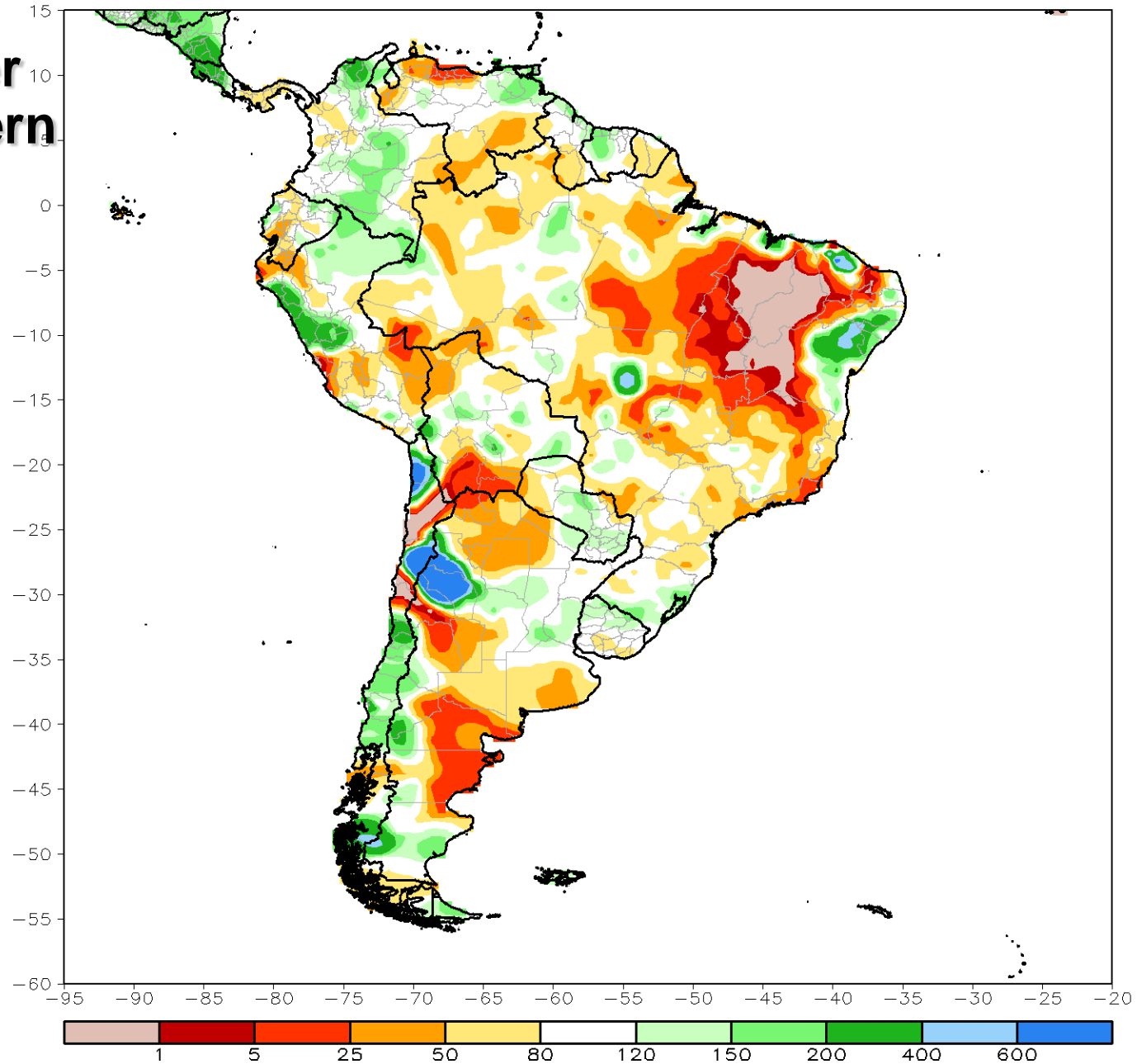
Period: 05Oct2017 - 11Oct2017



CPC Unified Gauge 30-Day Percent of Normal Rainfall (%)

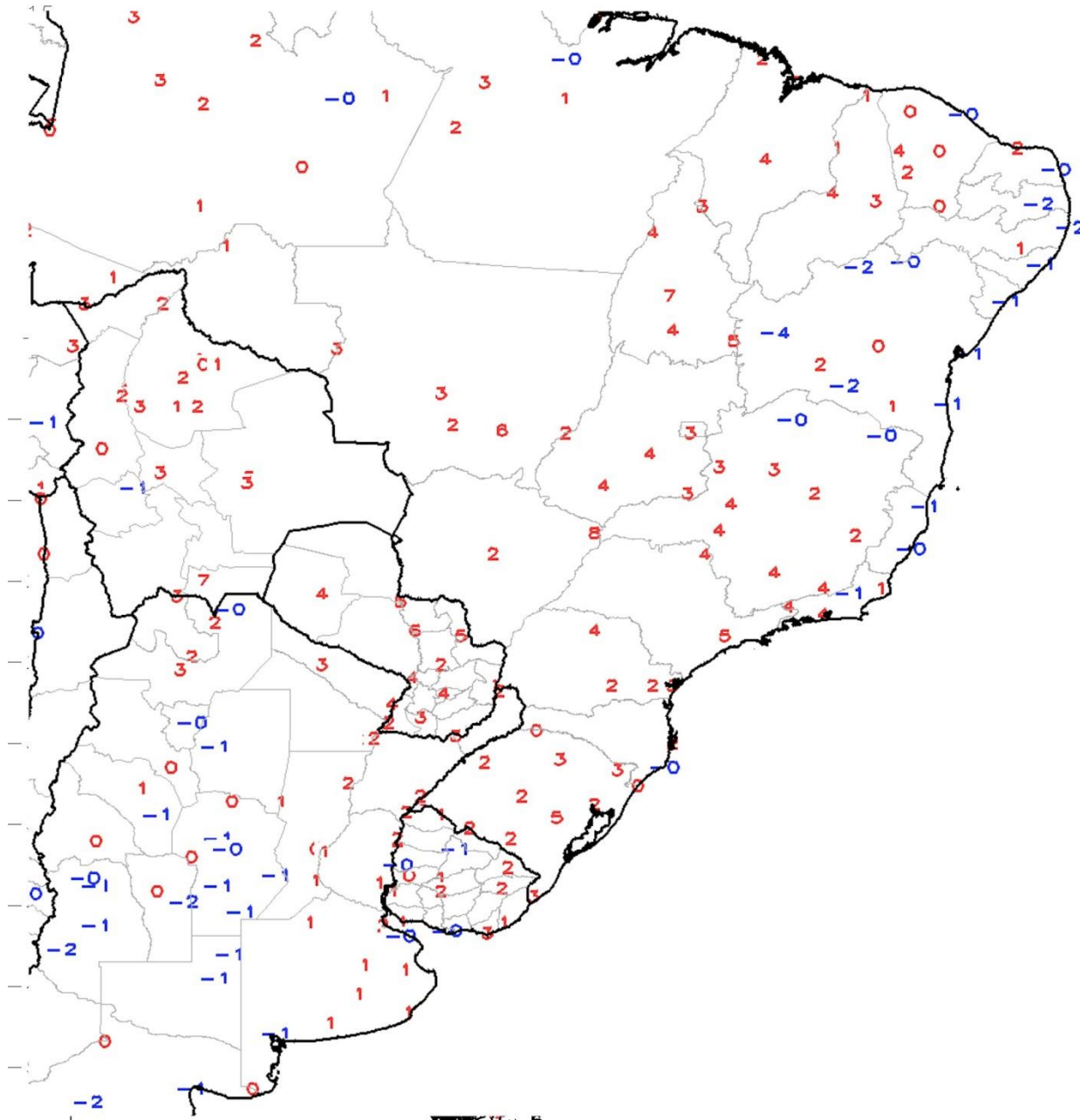
Period: 12Sep2017 - 11Oct2017

SEVERE DROUGHT over central & eastern Brazil



GTS Station Running 7-Day Average Temperature Anomaly (C)

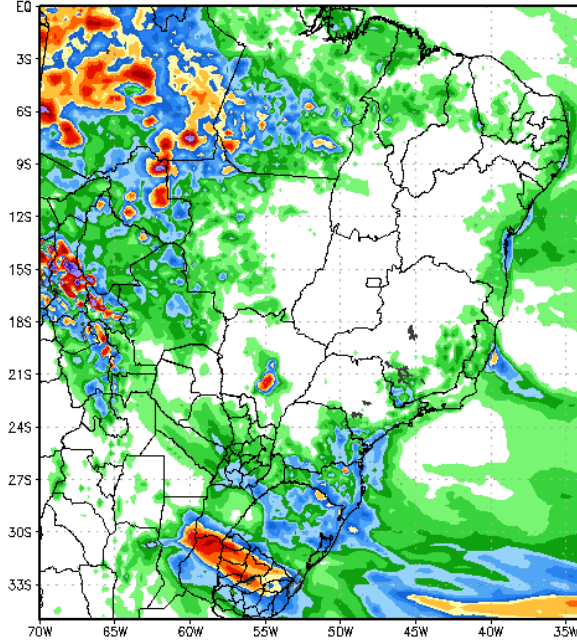
Period: 05Oct2017 - 11Oct2017



NEXT 5 DAYS GFS LEFT EURO RIGHT

120 Hour Total Precipitation (in)

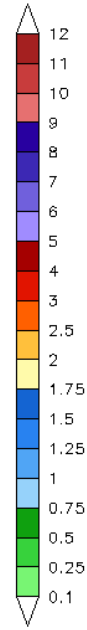
Valid: 00z Fri 13 Oct 2017 - 00z Wed 18 Oct 2017



Max: 10.6 in
Min: 0.0 in

StormVistaWxModels.com

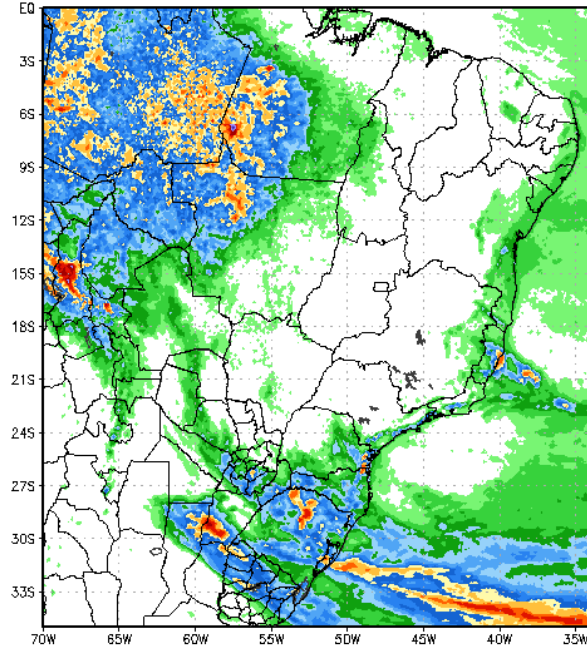
GFS-MAXRES
Hour: 0 - 120



Init: 00z Fri 13 Oct 2017
2017-10-13-04:03

Total Precipitation (in)

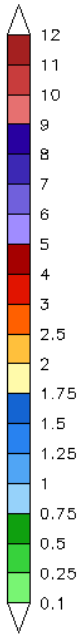
: Fri 13 Oct 2017 - 00z Wed 18 Oct 2017



Max: 7.4 in
Min: 0.0 in

StormVistaWxModels.com

ECMWF-MAXRES
Hour: 0 - 120

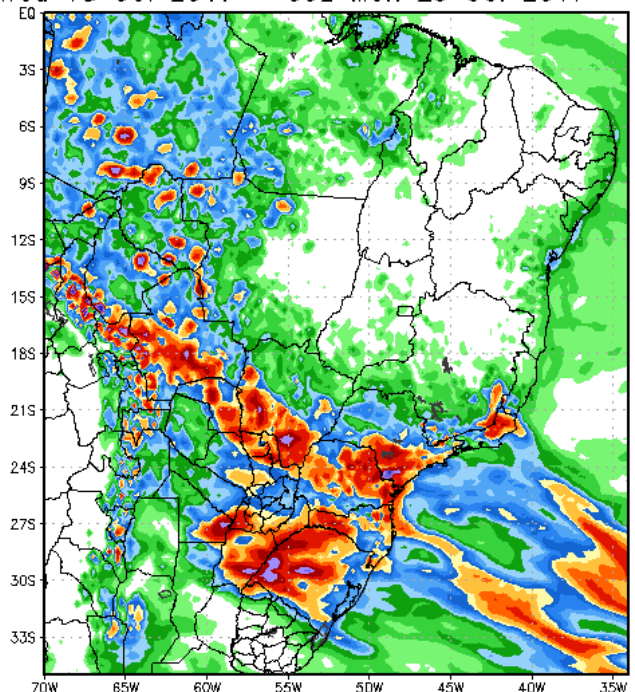


Init: 00z Fri 13 Oct 2017
2017-10-13-06:20

120 Hour Total Precipitation (in)
Valid: 00z Wed 18 Oct 2017 - 00z Mon 23 Oct 2017

GFS-MAXRES
Hour: 120 - 240

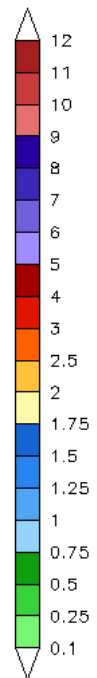
6-10DAY GFS LEFT EURO RIGHT



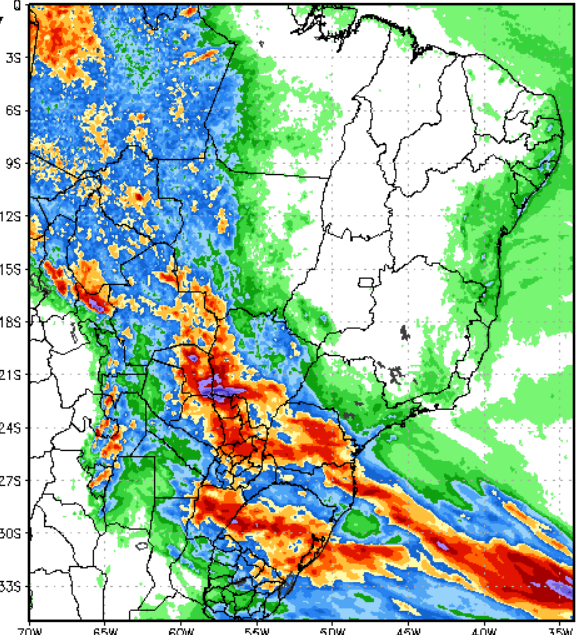
Max: 11.7 in
Min: 0.0 in

StormVistaWxModels.com

Init: 00z Fri 13 Oct 2017
2017-10-13-04:41



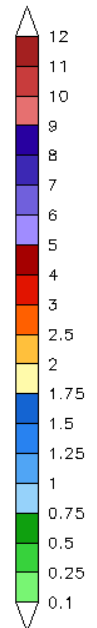
ECMWF-MAXRES
Valid: 00z Wed 18 Oct 2017 - 00z Mon 23 Oct 2017
Hour: 120 - 240



Max: 9.9 in
Min: -0.0 in

StormVistaWxModels.com

Init: 00z Fri 13 Oct 2017
2017-10-13-06:55



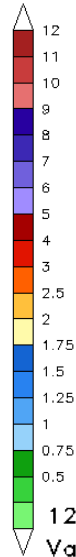
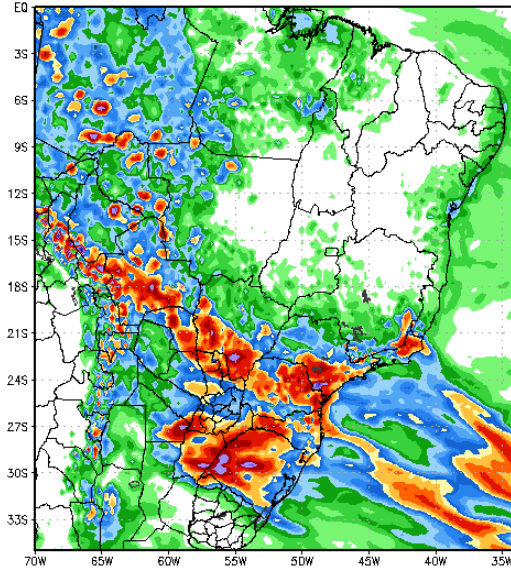
6-10 DAY ENSEMBLES

120 Hour Total Precipitation (in)

Valid: 00z Wed 18 Oct 2017 - 00z Mon 23 Oct 2017

GFS-MAXRES

Hour: 120 - 240



Max: 11.7 in
Min: 0.0 in

StormVistaWxModels.com

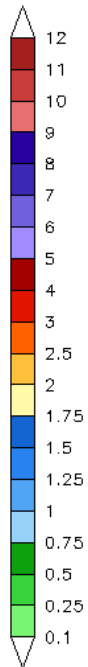
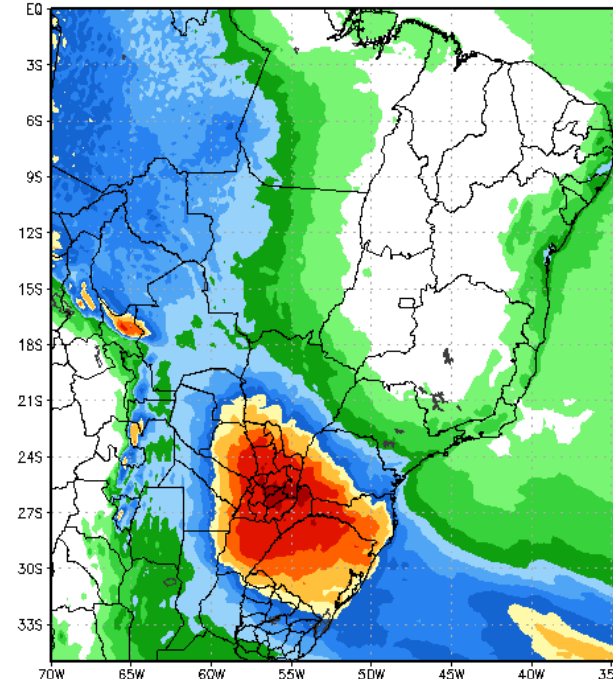
Init: 00z Fri 13 Oct 2017-10-13-

120 Hour Total Precipitation (in)

Valid: 00z Wed 18 Oct 2017 - 00z Mon 23 Oct 2017

ECMWF-EPS-MAXRES

Hour: 120 - 240



Max: 4.3 in
Min: -0.0 in

StormVistaWxModels.com

Init: 00z Fri 13 Oct 2017 2017-10-13-0241

11 - 15 DAYS GFS

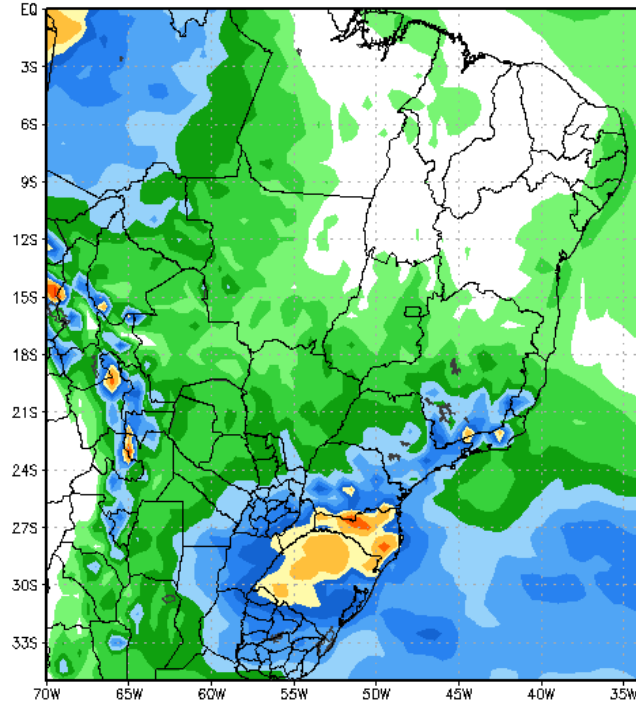
GFS-ENS-MAXRES

Hour: 246 - 316

LEFT EURO RIGHT

120 Hour Total Precipitation (in)

Valid: 06z Mon 23 Oct 2017 - 06z Sat 28 Oct 2017



Max: 3.0 in
Min: 0.0 in

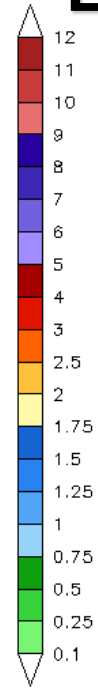
StormVistaWxModels.com

120 Hour Total Precipitation (in)

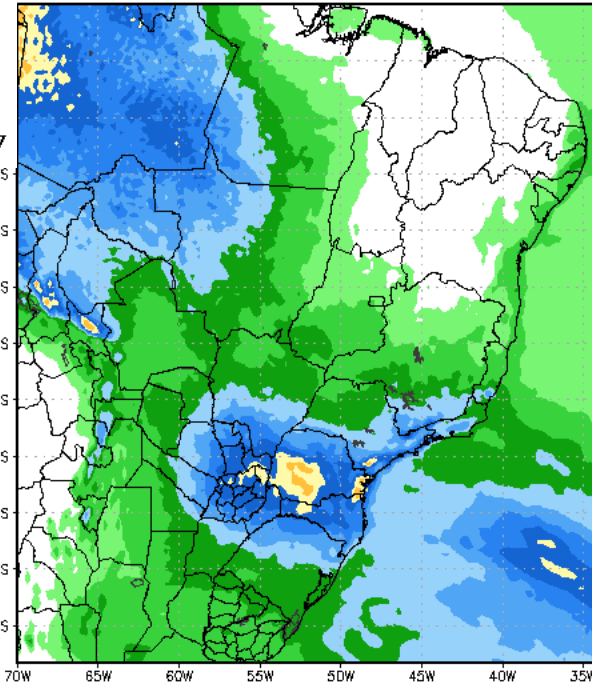
Valid: 23 Oct 2017 - 00z Sat 28 Oct 2017

ECMWF-EPS-MAXRES

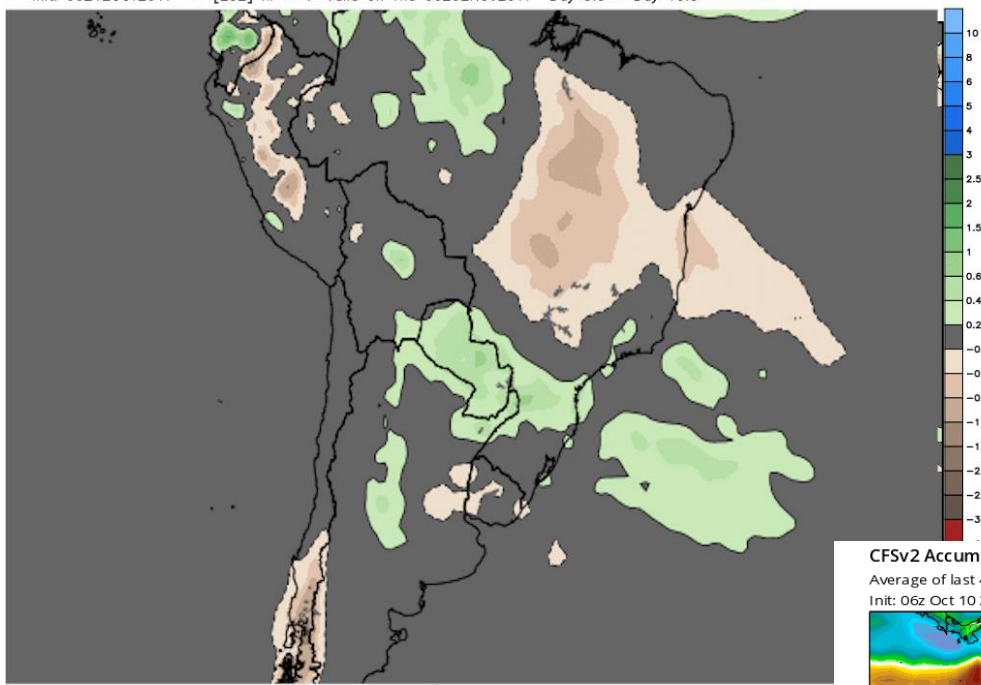
Hour: 240 - 316



Init: 00z Fri 13 Oct 2017
2017-10-13-05:32



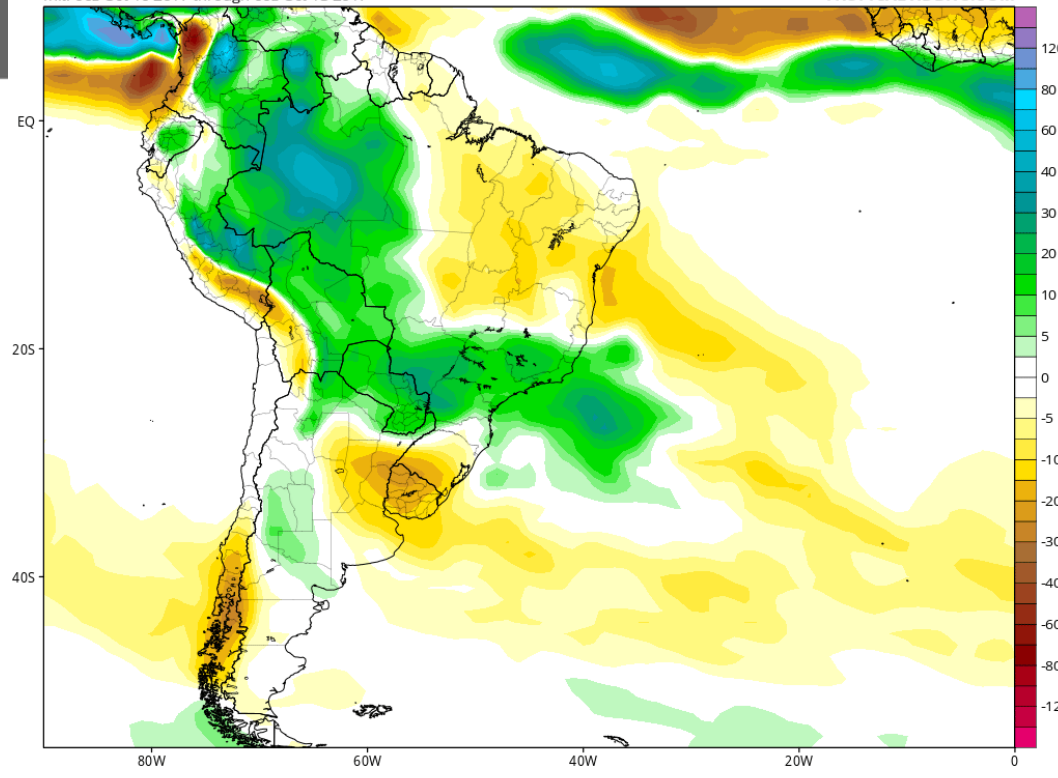
Max: 2.5 in



Accumulation between 00Z26OCT2017-00Z02NOV2017 | ECMWF EPS 1997-2016 Hindcast Climatology

EURO shows central/ interior BRAZIL DRY to 11/2/17 – wet over northern eastern ARG / Parag./ SE Brazil

CFSv2 Accumulated Precip. Anomaly (mm) from 00z27Oct2017 to 00z03Nov2017 (Days 15-21)
Average of last 48 forecasts (12 runs x 4 members)
Init: 06z Oct 10 2017 through 00z Oct 13 2017
TROPICALTIDBITS.COM

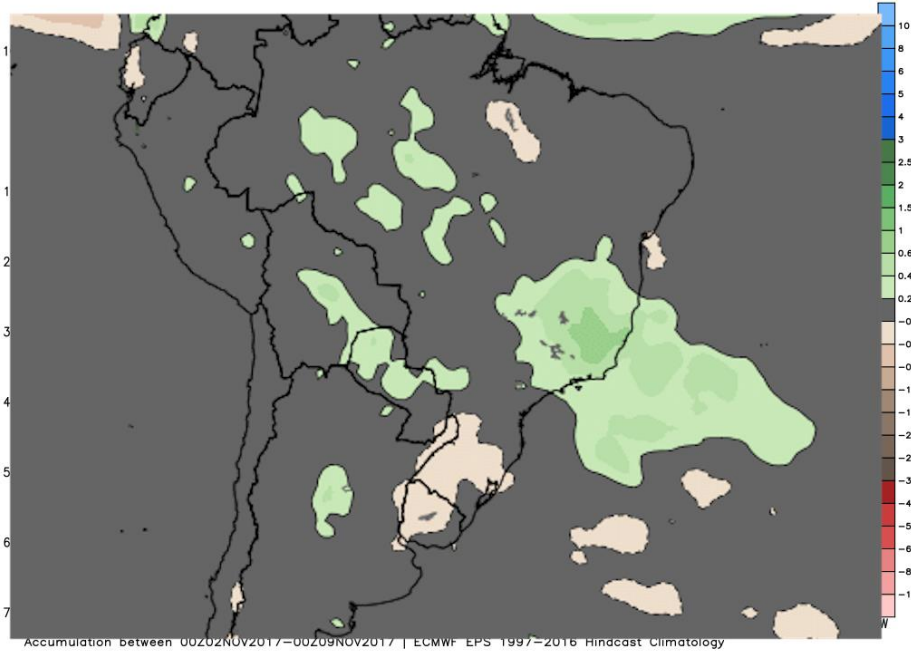


By 11/3 wet pattern over much of se / sw Brazil begins to shift north

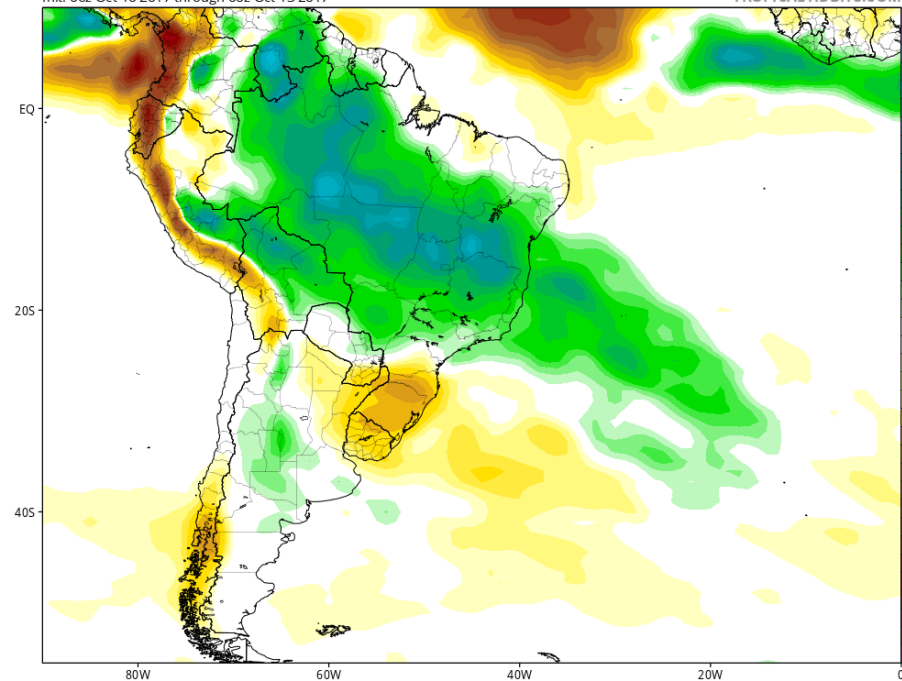
EURO by 11/9/17 shows Above normal rains much of Brazil

ECMWF EPS Ensemble Mean 7-day Avg Precipitation Anomaly [inch]
Init: 00Z12OCT2017 -- [336] hr --> Valid on Thu 00Z09NOV2017 Day 7 - Day 14

Min|Max Anom: -2.7 | 1.6 inch



CFSv2 Accumulated Precip. Anomaly (mm) from 00z03Nov2017 to 00z10Nov2017 (Days 22-28)
Average of last 48 forecasts (12 runs x 4 members)
Init: 06z Oct 10 2017 through 00z Oct 13 2017



Sometimes I wonder whether the world is being run by smart people who are putting us on, or by imbeciles who really mean it.

MARK TWAIN

