

# US and OVERSEAS GRAIN WEATHER ISSUES

**12 MAY 2017**



LOCATED in Richmond VA

Featured frequently on AGRI-MONEY

**EMAIL WXRISK@VERZION .NET**



@WXRISK.COM



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

**804 307 8070**







## 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.



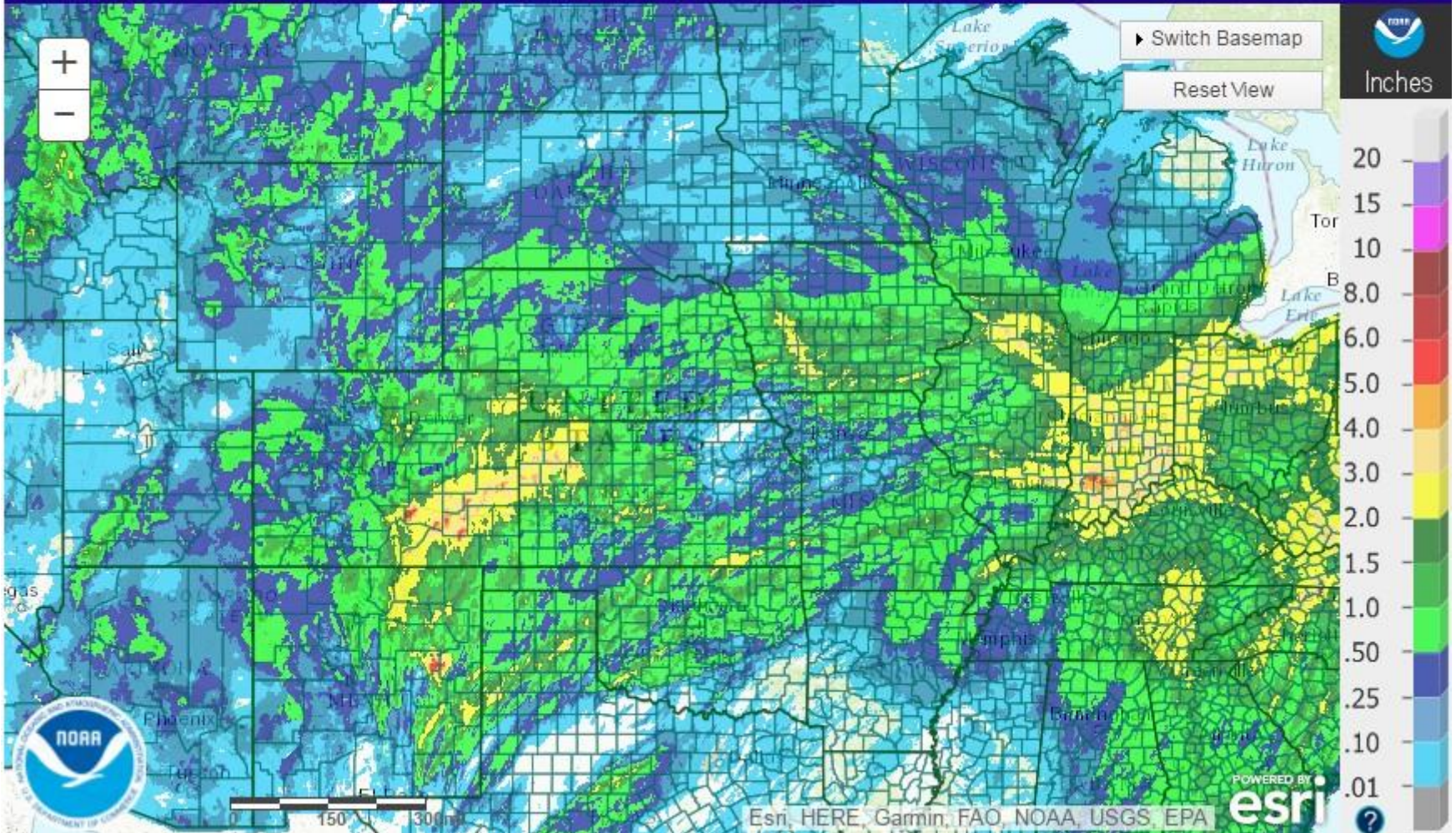
# RAINFALL LAST 7 DAYS

Displaying Last 7-Day Observed Precipitation  
Valid on: May 11, 2017 12:00 UTC

 Print this map     

[What is UTC time?](#)

[Map Help](#)





# PRECIP ANOMALIES LAST 7 DAYS

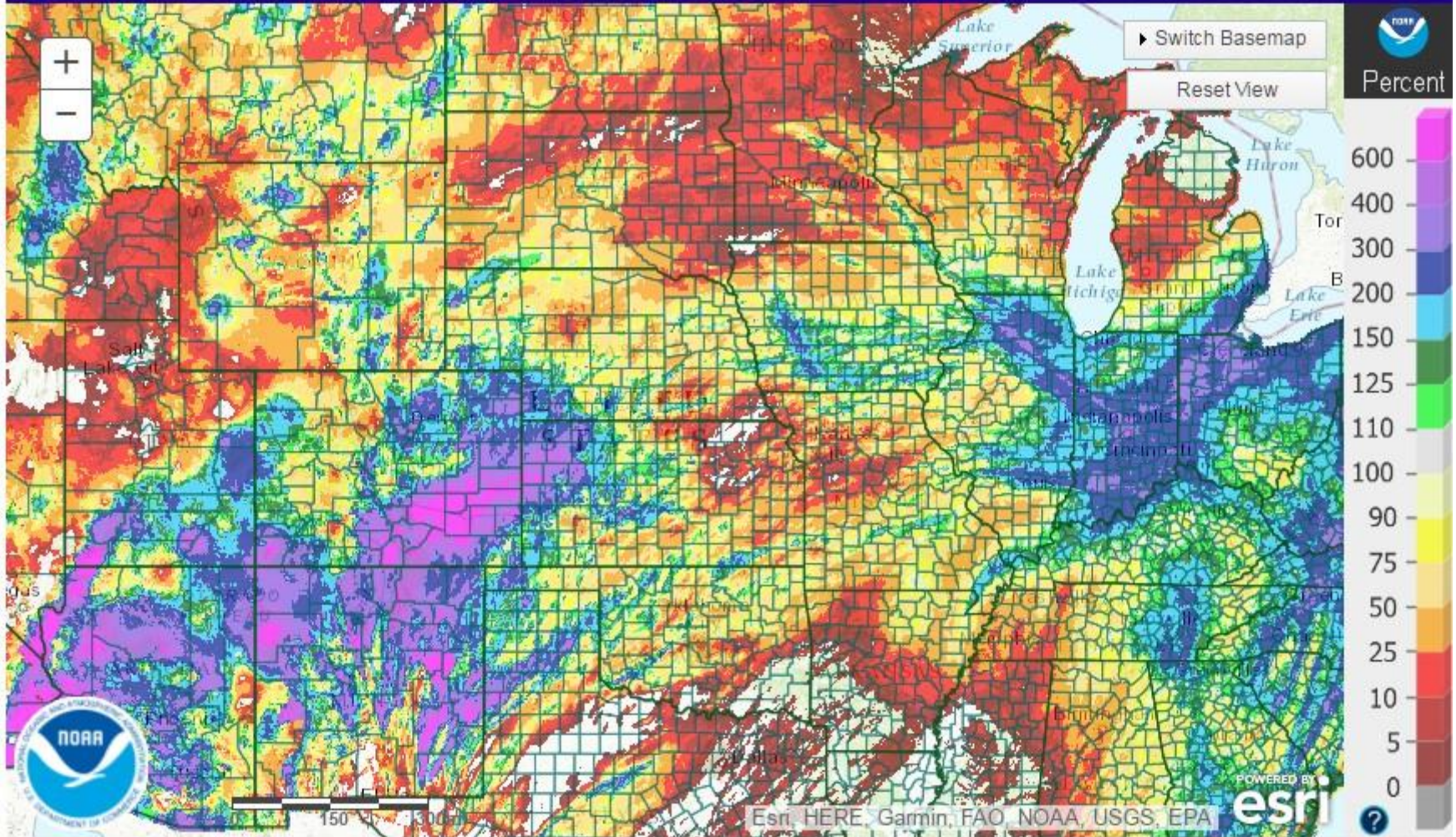
Displaying Last 7-Day Percent of Normal Precipitation  
Valid on: May 11, 2017 12:00 UTC

Print this map [Permalink](#) [BOOKMARK](#) [f](#) [t](#) [...](#)

[What is UTC time?](#)

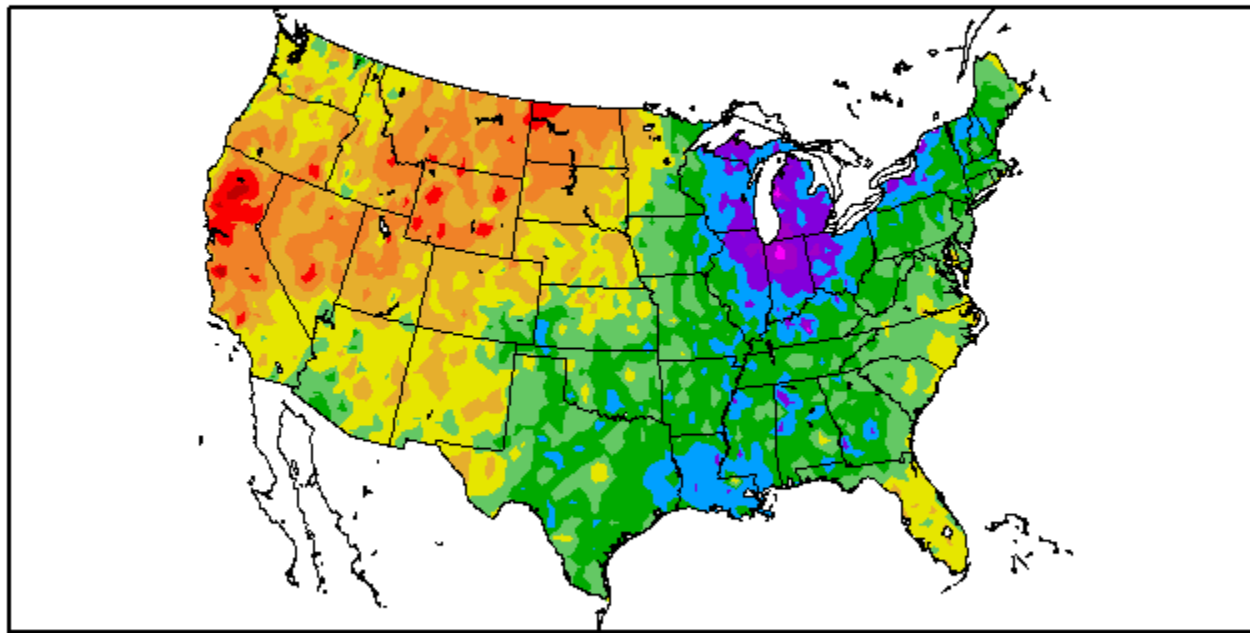
[Map Help](#)

Find address or location



# TEMP ANOMALIES LAST 7 DAYS

Departure from Normal Temperature (F)  
5/1/2017 - 5/10/2017

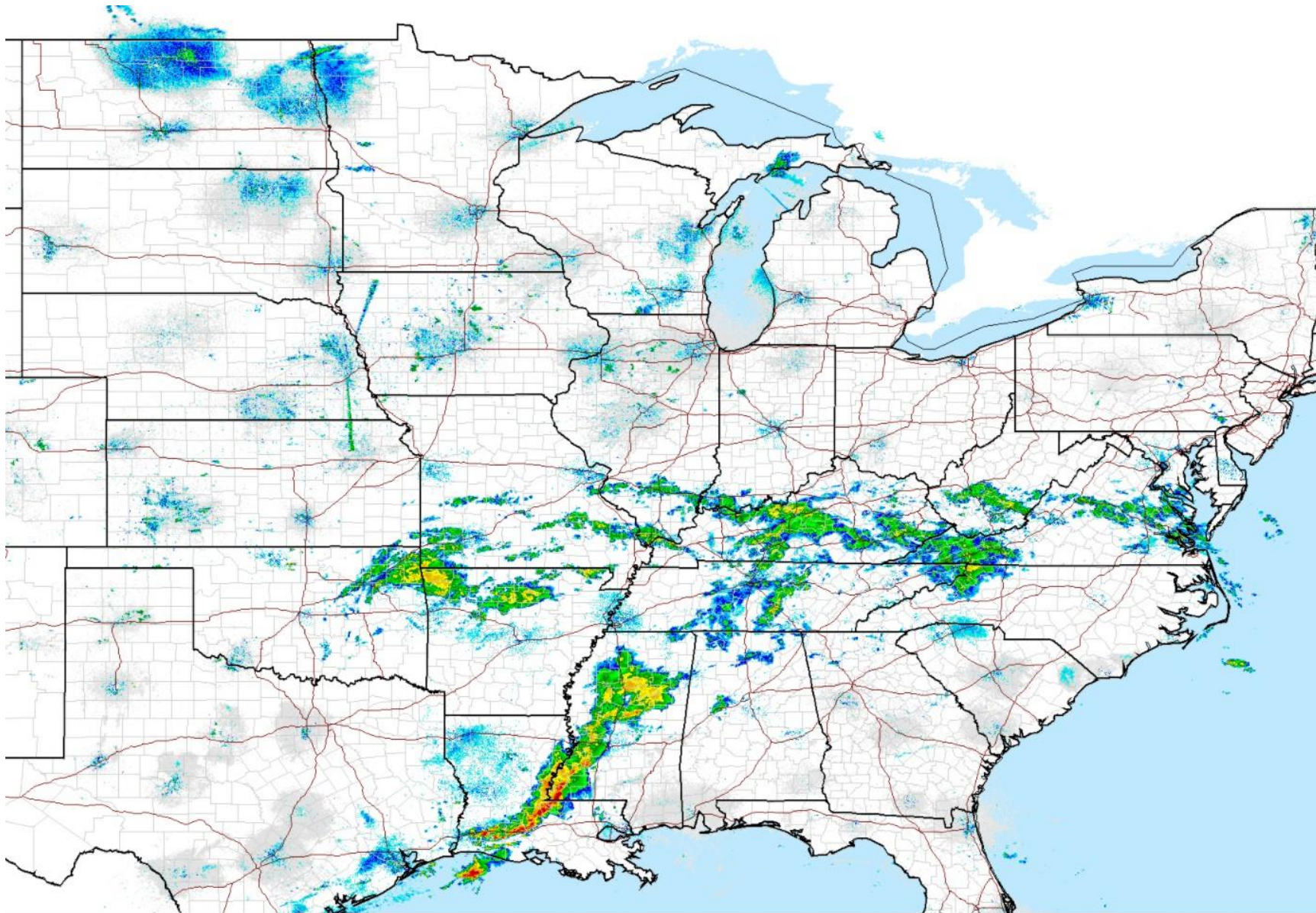


Generated 5/11/2017 at HPRCC using provisional data.

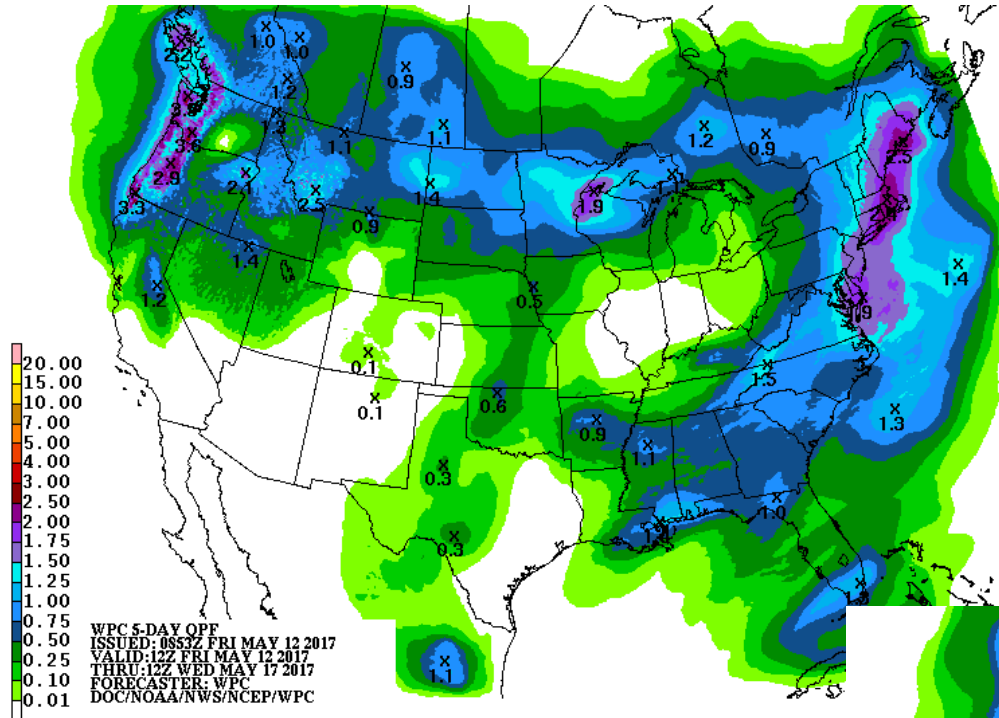
Regional Climate Centers



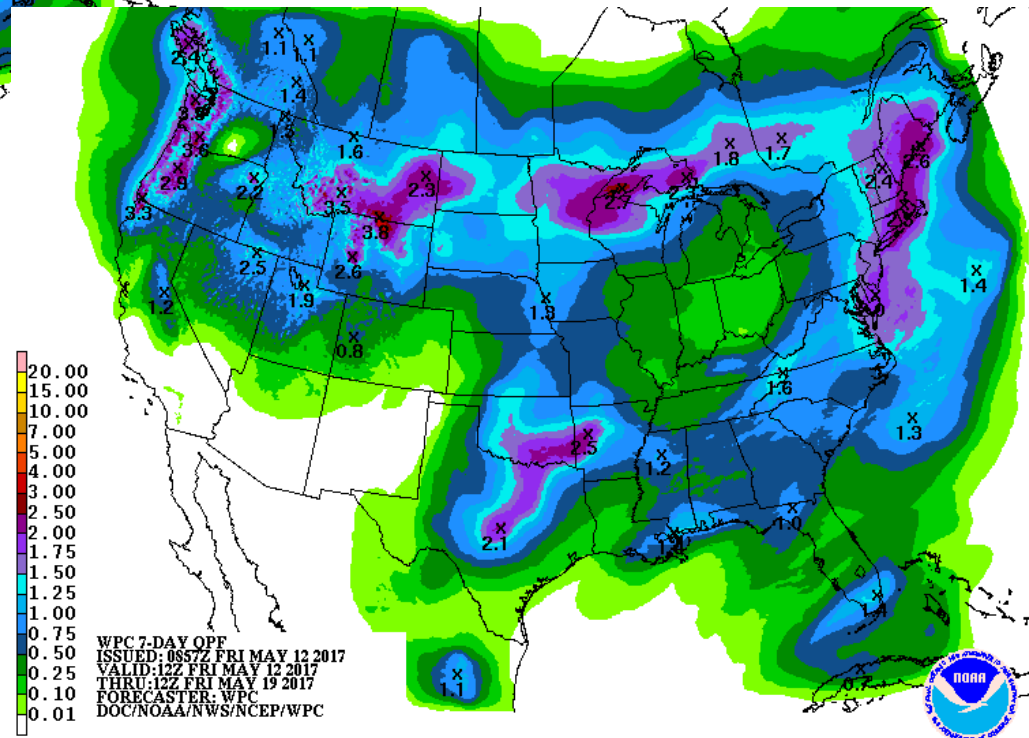
# FRI AM RADAR



# NWS OFFICIAL RAINFALL NEXT 5 DAYS



**NWS OFFICIAL  
RAINFALL NEXT 7  
DAYS - note that there  
is significant new rain  
fall in DAY 6 & 7**





# CURRENT UPPER AIR – 500 MB PATTERN

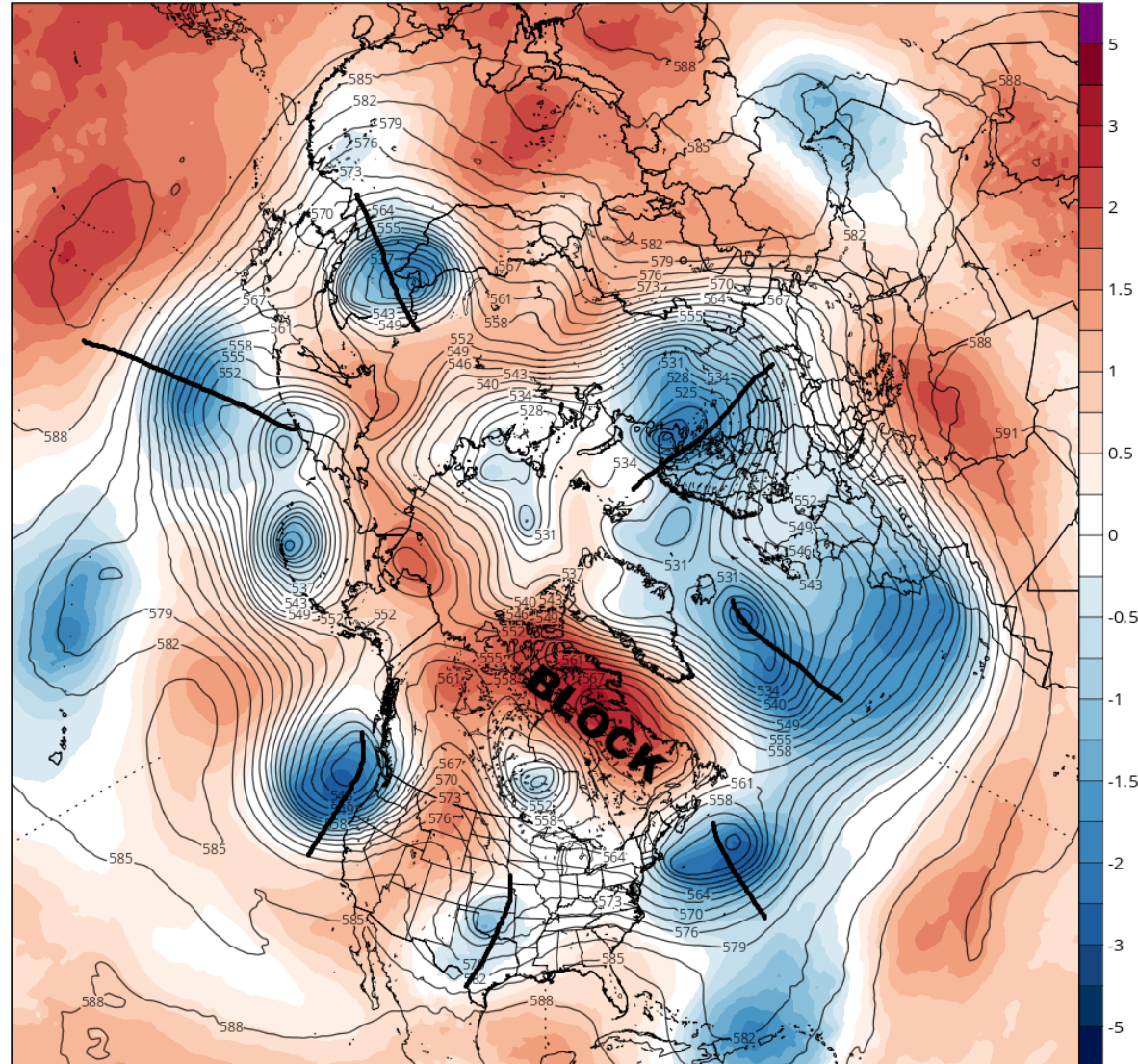
**NOTE THE BLOCK  
over ne Canada.  
This is the feature  
that has brought  
about all the cold  
temps in 1<sup>st</sup> week of  
MAY.**

**Also note the  
numerous  
TROUGHS evenly  
spaced around  
the world**

ECMWF 500mb Geopotential Height & Normalized Anomaly (based on CFSR 1981-2010 Climatology)

Init: 00z May 12 2017 [Analysis] valid at 00z Fri, May 12 2017

TROPICALTIDBITS.COM



# DAY 10 UPPER AIR – 500 MB PATTERN

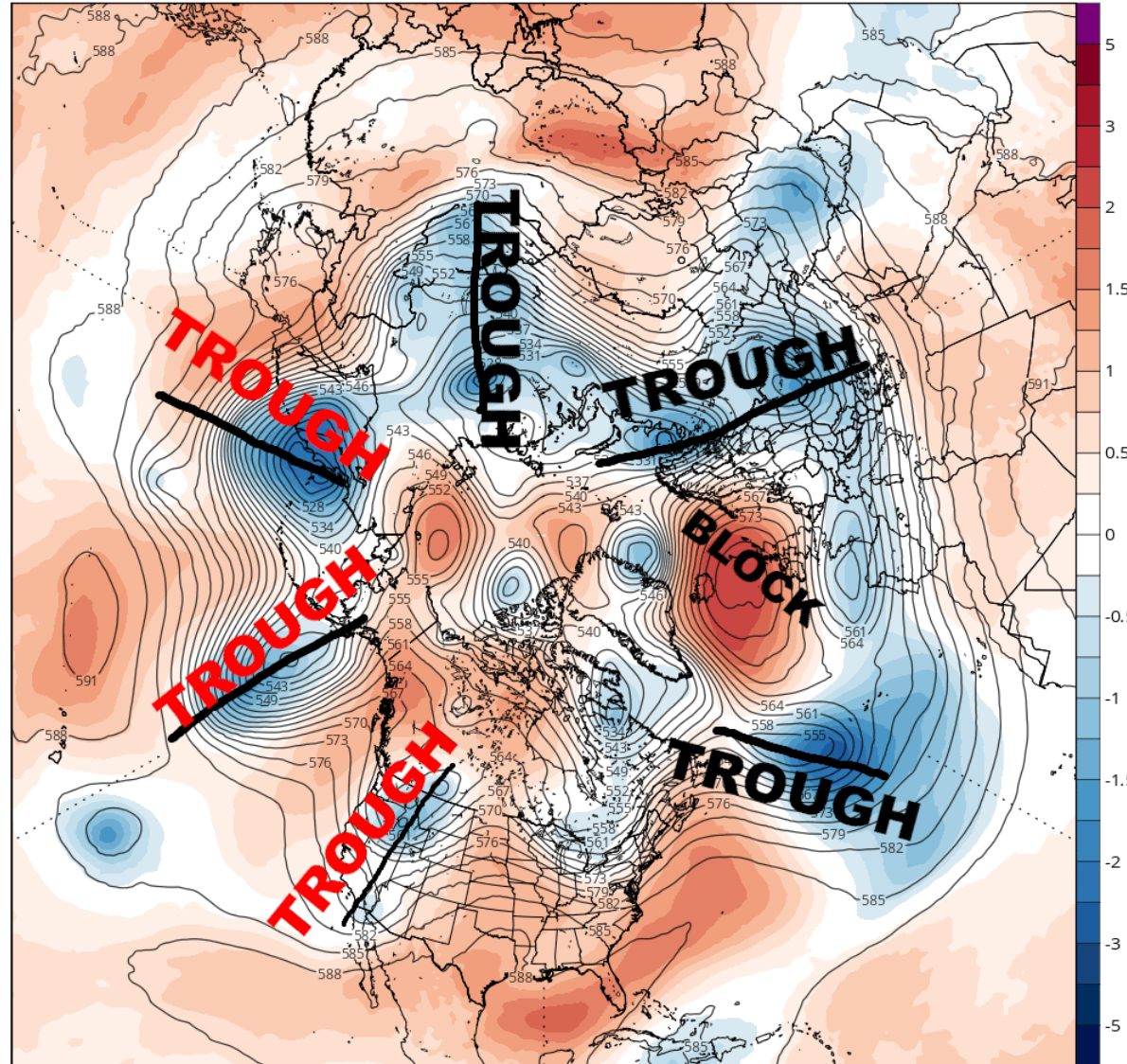
**NOTE THE BLOCK  
has moved east to  
the UK – which will  
impact EUROPE  
weather aftr MAY 20**

**The RED color  
troughs are 3 mre  
weather systems  
that are likely to  
become rain events  
in last week of MAY  
into early JUNE**

ECMWF 500mb Geopotential Height & Normalized Anomaly (based on CFSR 1981-2010 Climatology)

Init: 00z May 12 2017 Forecast Hour: [240] valid at 00z Mon, May 22 2017

TROPICALTIDBITS.COM

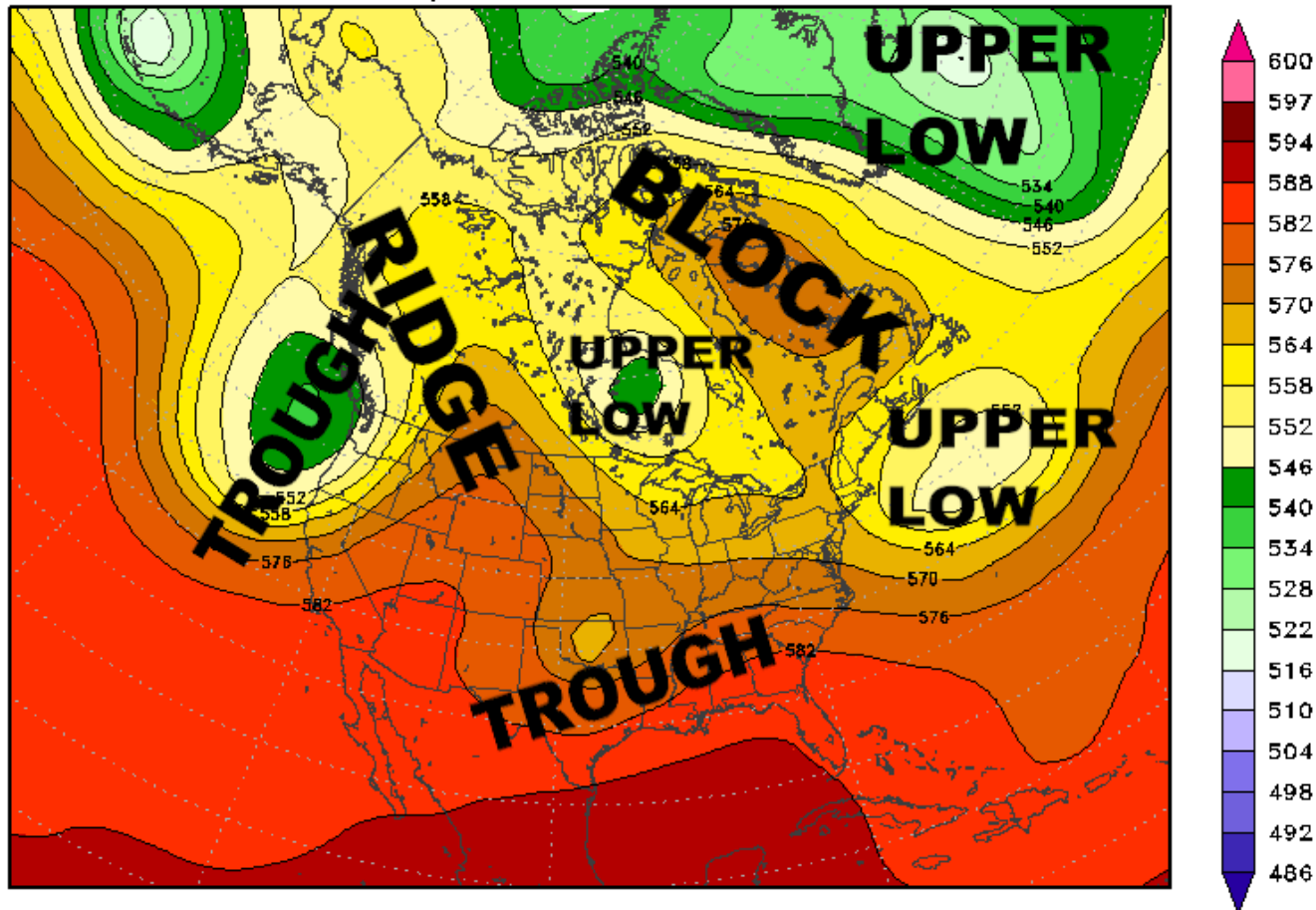


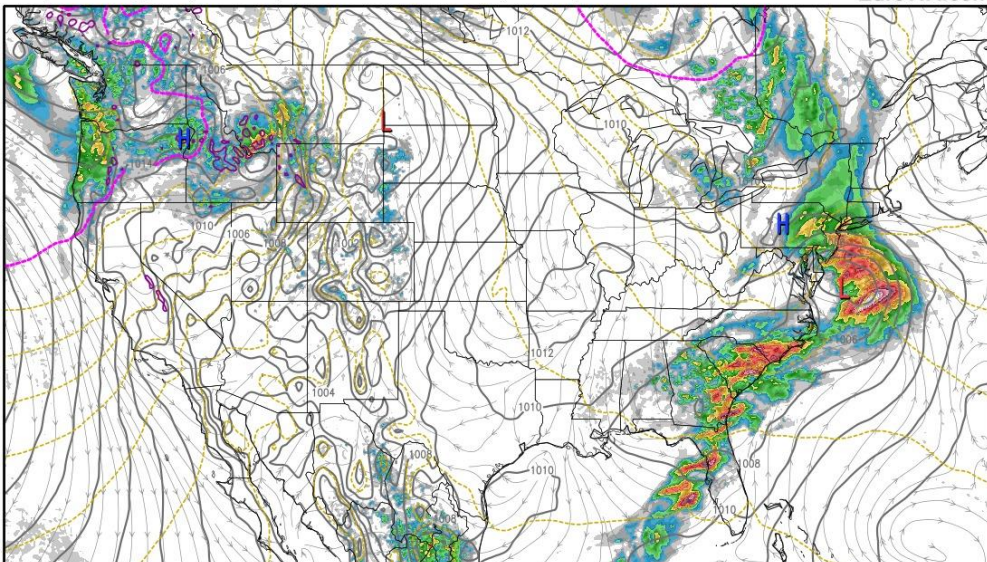


**weak trough over OK stays too far south  
= Midwest most of Plains DRY next 5 days.  
But deep West coast trough comes East**

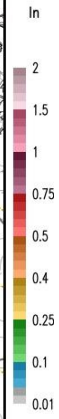
500 mb Height  
Valid: 03z Fri 12 May 2017

ECMWF  
Hour: 3





# SAT EVENING



ECMWF HRES MODEL RUN 00Z 05/12 48hr FORECAST

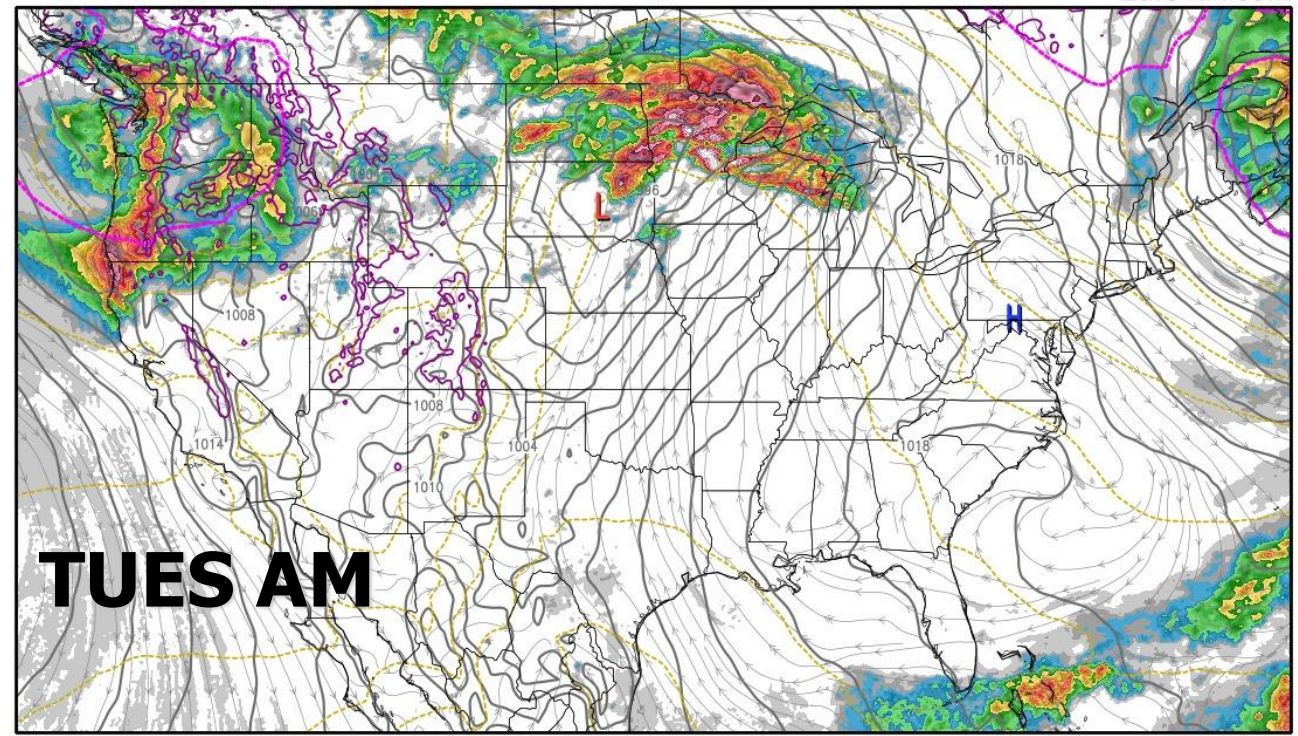
This service is based on data and products of the European

C 2017 ECMWF

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

Valid Tuesday 12Z 05/16

EuroWX.com



# TUES AM



ECMWF HRES MODEL RUN 00Z 05/12 108hr FORECAST

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

C 2017 ECMWF

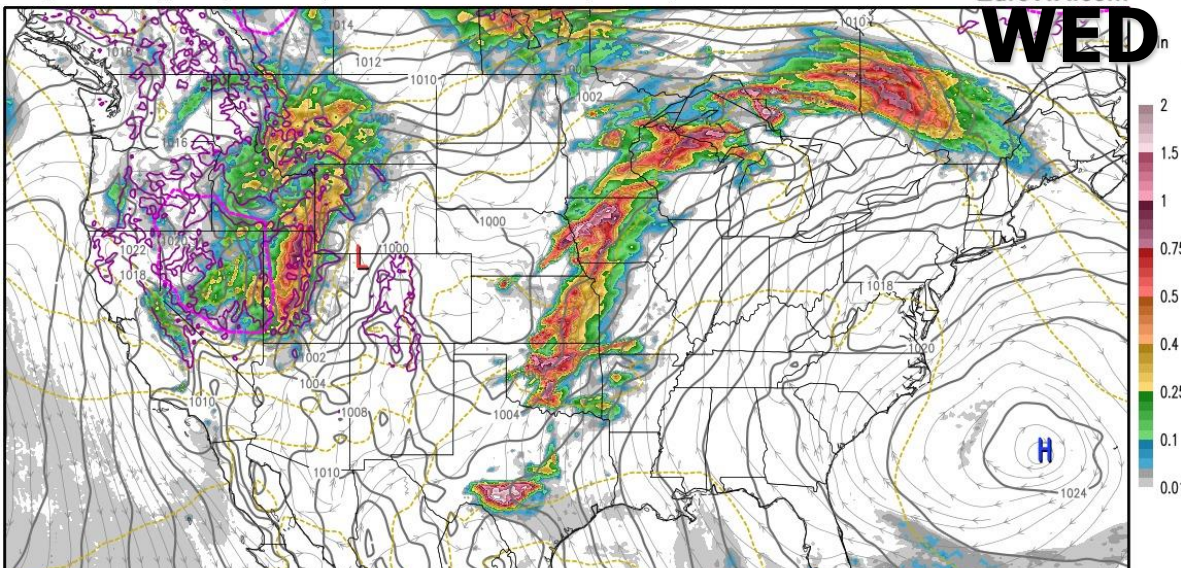


MSLP, 12hr Precip, Wind, Thickness, 32f

Valid Wednesday 12Z 05/17

EuroWX.com

# WED AM

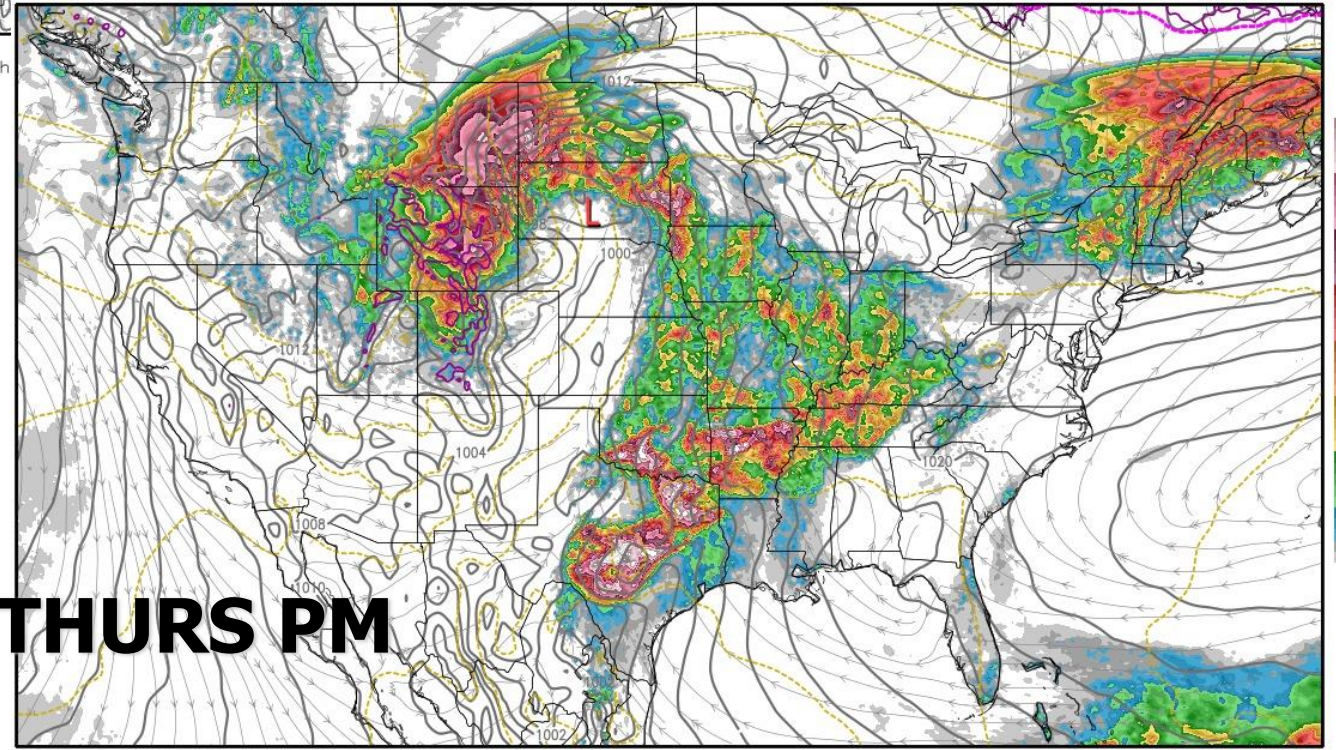


MSLP, 12hr Precip, Wind, Thickness, 32f

Valid Friday 00Z 05/19

EuroWX.com

ECMWF HRES MODEL RUN 00Z 05/12 132hr FORECAST  
This service is based on data and products of the



# THURS PM

ECMWF HRES MODEL RUN 00Z 05/12 168hr FORECAST

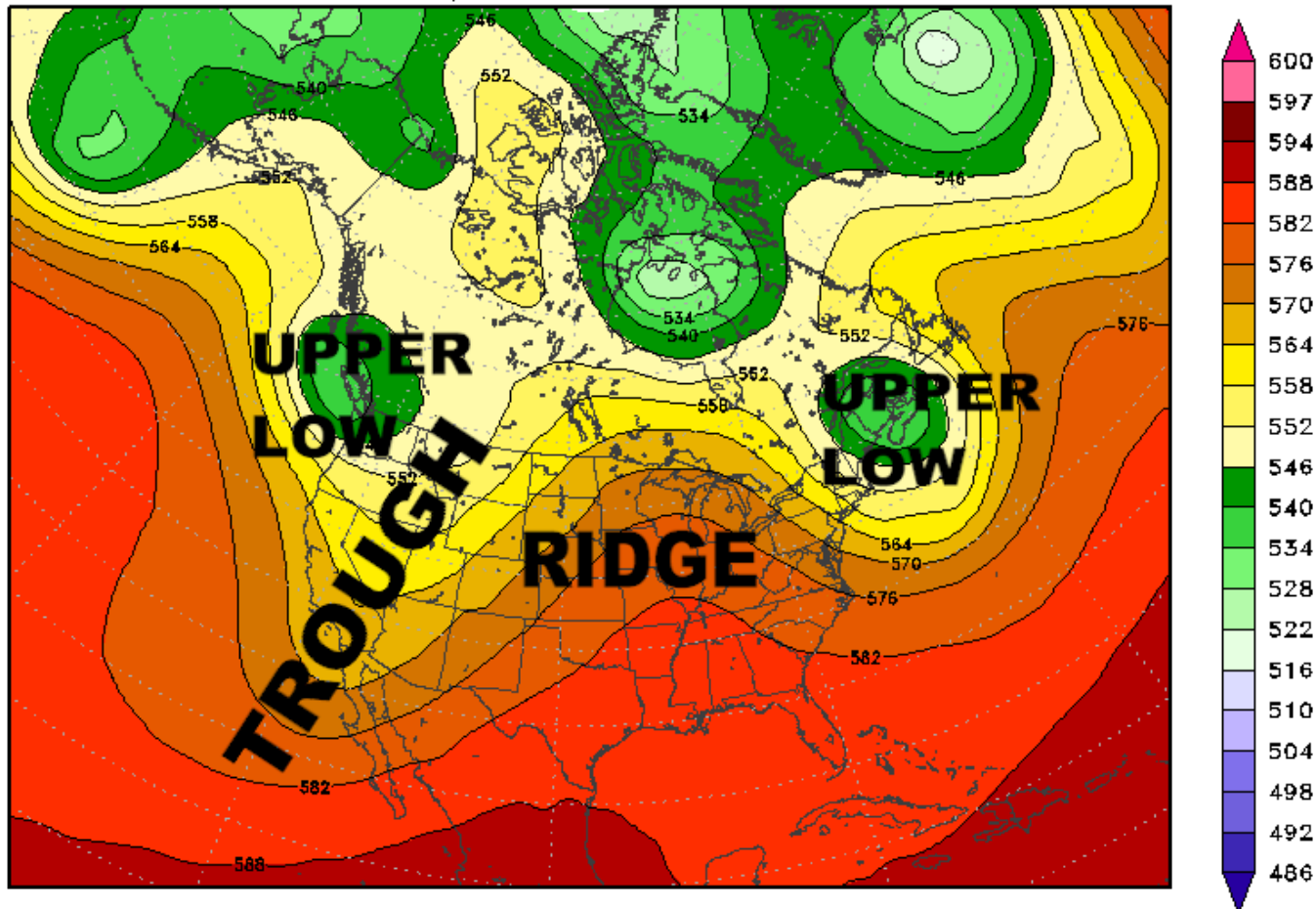
This service is based on data and products of the European Center for Medium-range Weather Forecasts.

C 2017 ECMWF

# Deep troughs over West Coast \* New England while large Ridge forms over Plains and Midwest = DRY 1-5 day

500 mb Height  
Valid: 00z Tue 16 May 2017

ECMWF  
Hour: 96



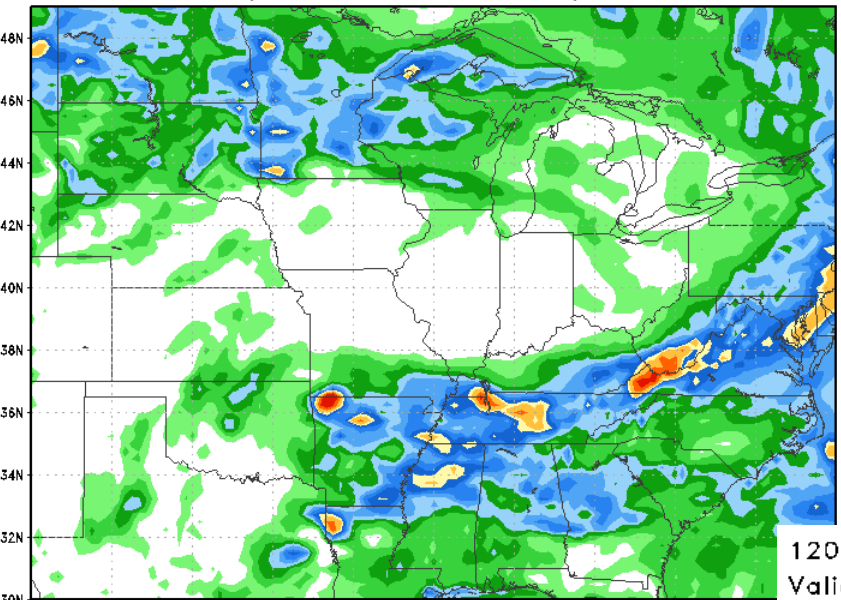


120 Hour Total Precipitation (in)

Valid: 00z Fri 12 May 2017 - 00z Wed 17 May 2017

GFS-MAXRES

Hour: 0 - 120



**KEY POINT most  
of the Midwest  
dry next 5 days**

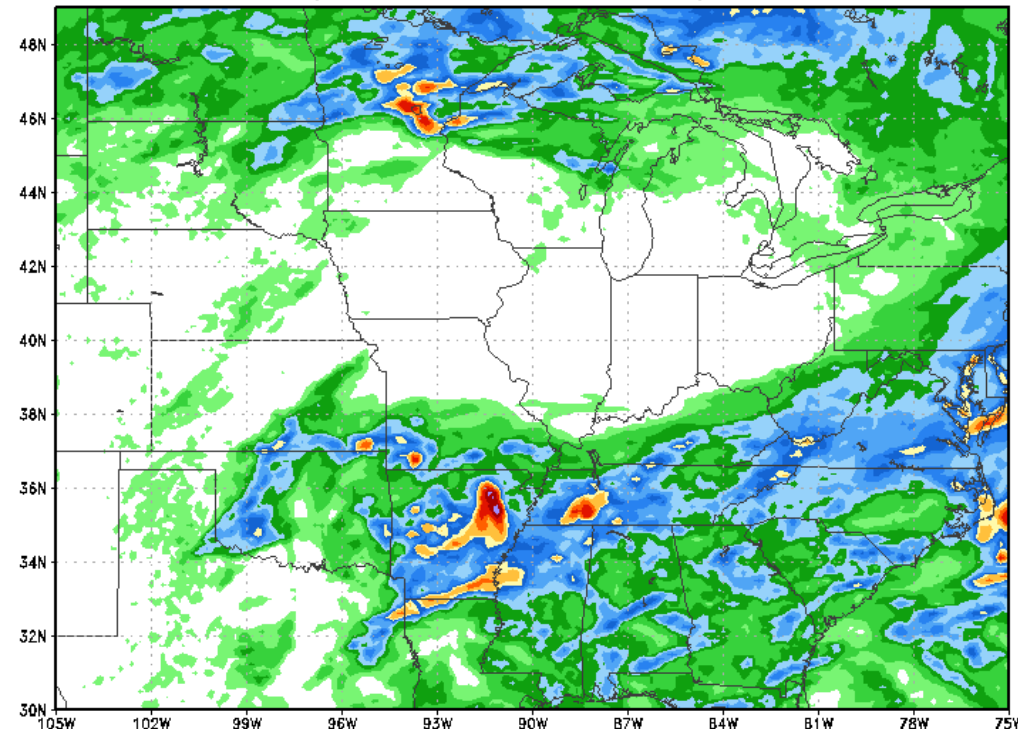
Max: 4.0 in  
Min: 0.0 in  
StormVistaWxModels.com  
Init: 00z

120 Hour Total Precipitation (in)

Valid: 00z Fri 12 May 2017 - 00z Wed 17 May 2017

ECMWF-MAXRES

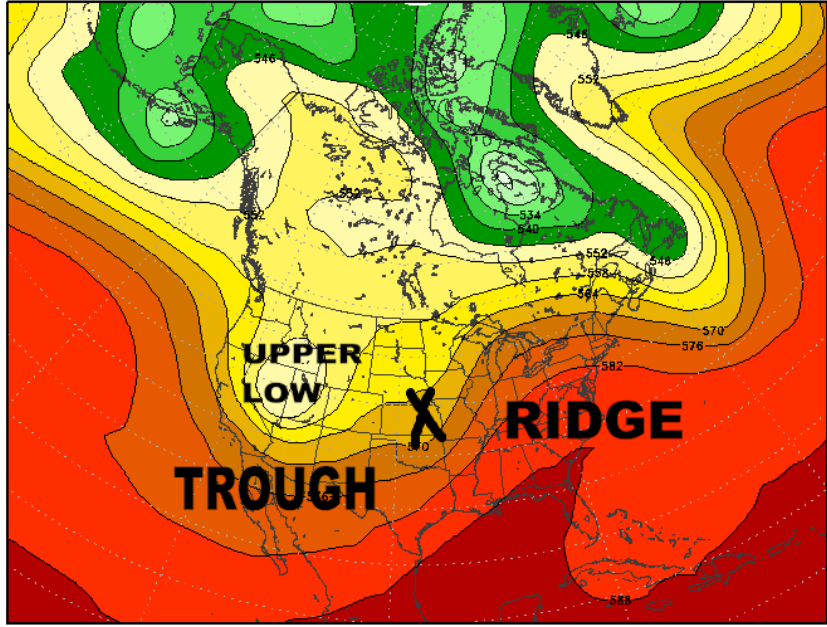
Hour: 0 - 120



Max: 5.6 in  
Min: 0.0 in  
StormVistaWxModels.com  
Init: 00z Fri 12 May 2017  
2017-05-12-06:20

500 mb Height  
Valid: 12z Wed 17 May 2017

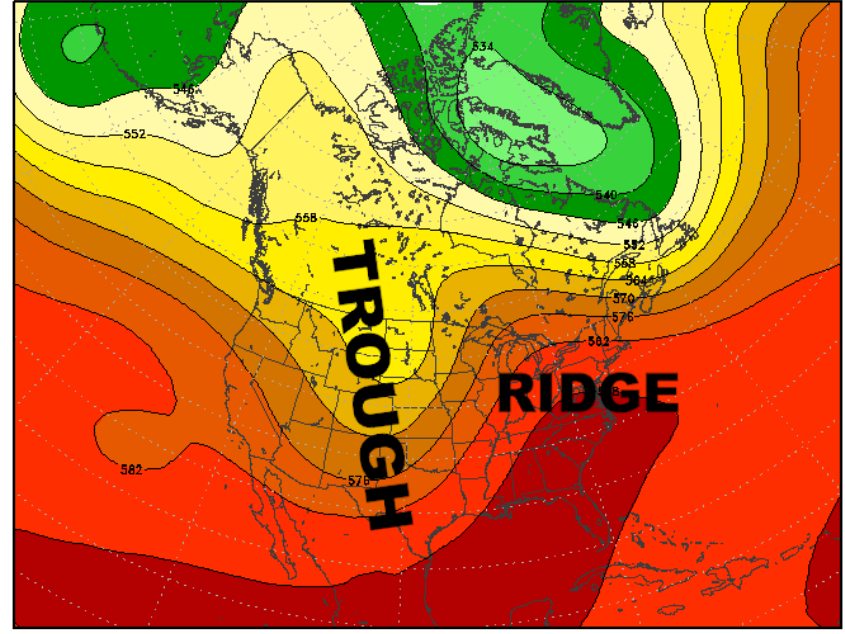
ECMWF  
Hour: 132



**western US trough comes east sending out smaller "disturbances" into Plains & WCB while ECB SE states dry warm**

500 mb Height  
Valid: 00z Sat 20 May 2017

ECMWF-EP  
Hour: 192



GRADS: COLA/IGES

StormVistaWxModels.com

Init: 00z Fri 12 2017-05

GRADS: COLA/IGES

StormVistaWxModels.com

Init: 00z Fri 12 May 2017 2017-05-12-03:32

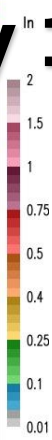
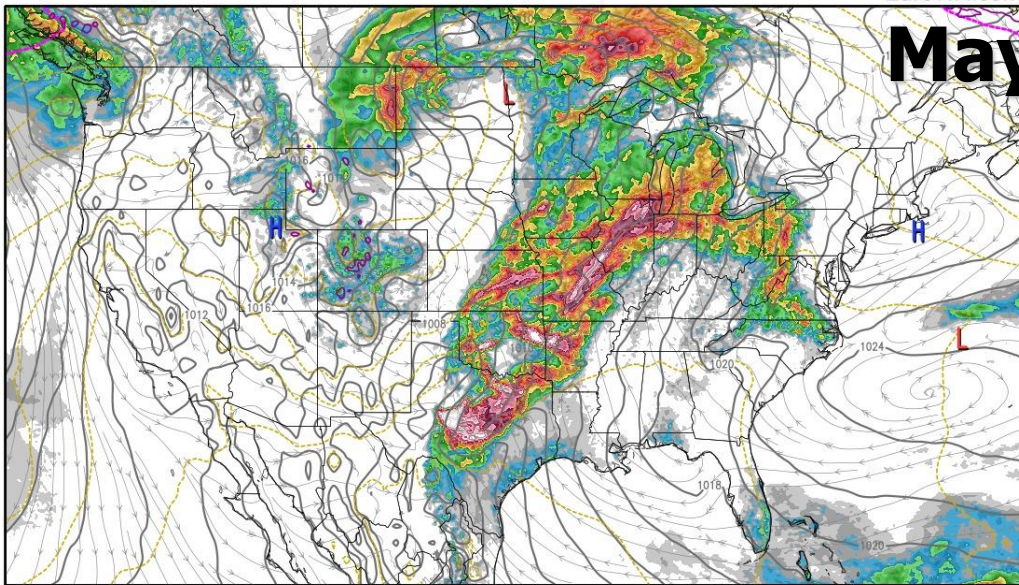


MSLP, 12hr Precip, Wind, Thickness, 32f

Valid Saturday 00Z 05/20

EuroWX.com

# May 19-20



ECMWF HRES MODEL RUN 00Z 05/12 192hr FORECAST

C 2017 ECMWF

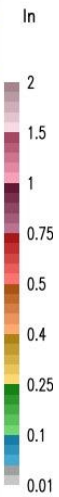
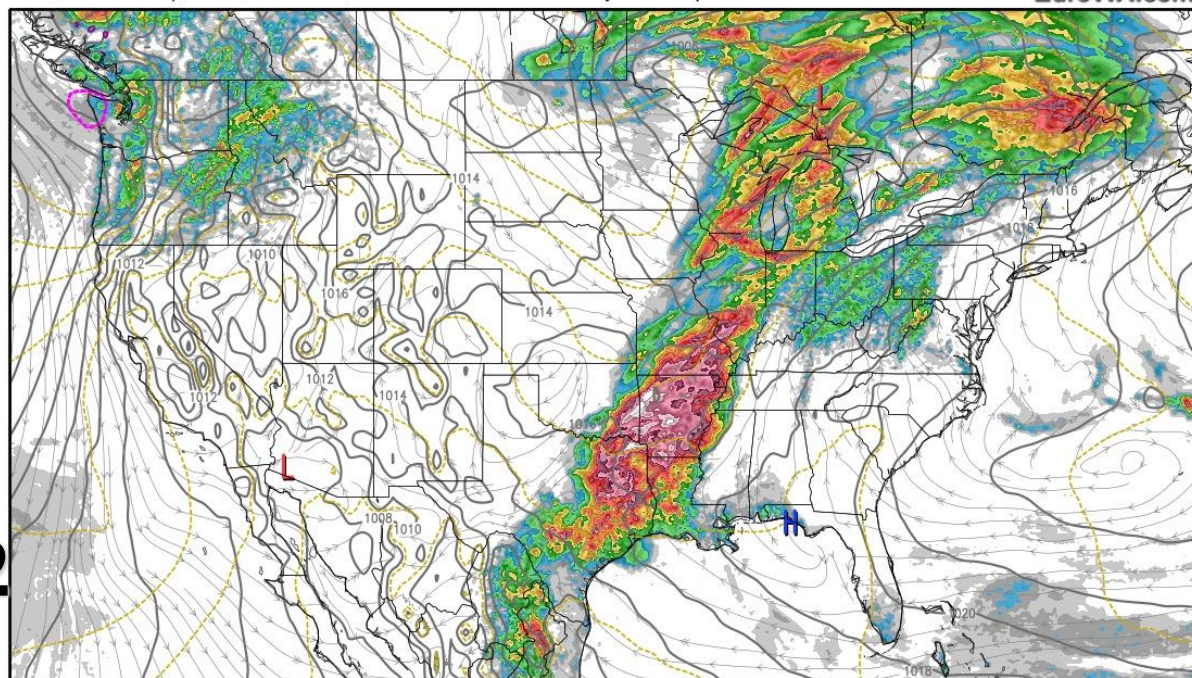
This service is based on data and products of the European Center for Medium-range Weather Forecasts.

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

Valid Sunday 00Z 05/21

EuroWX.com

# May 21-22



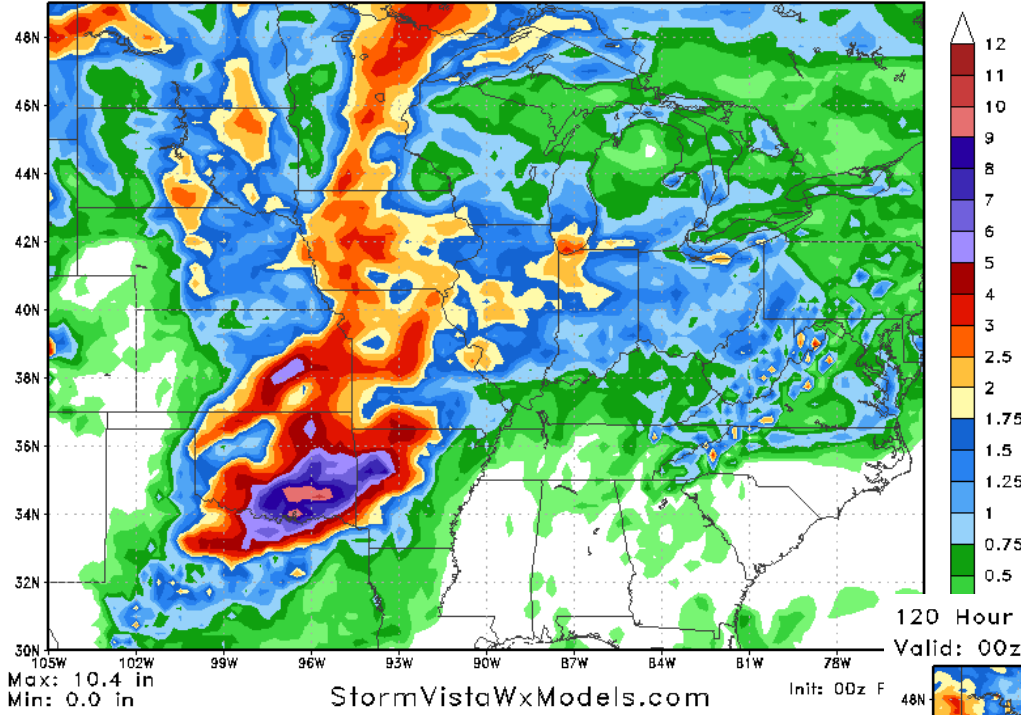
ECMWF HRES MODEL RUN 00Z 05/12 216hr FORECAST

C 2017 ECMWF

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



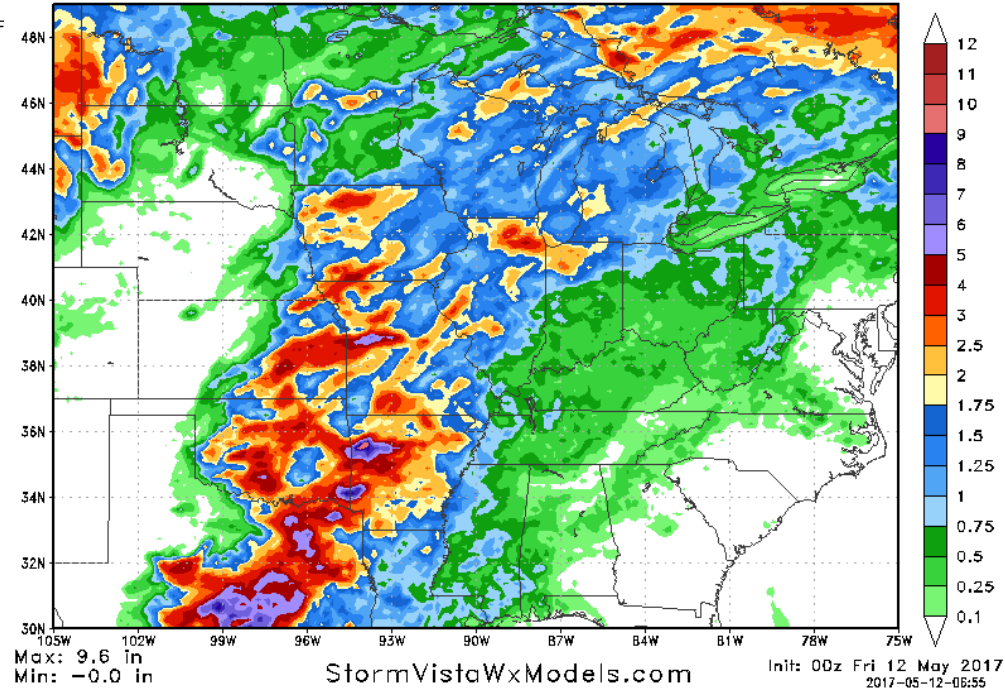
120 Hour Total Precipitation (in) GFS-MAXRES  
Valid: 00z Wed 17 May 2017 - 00z Mon 22 May 2017 Hour: 120 - 240



**KEY POINT most  
of the Midwest  
dry next 5 days**

**GFS has blobs  
up to 10"/300mm  
in eastern OK**

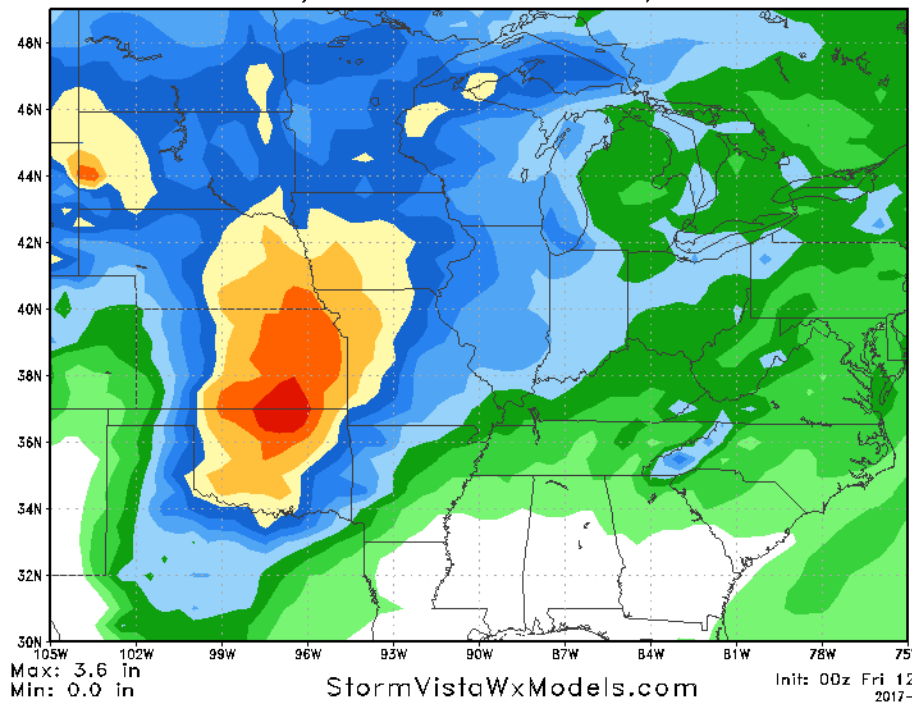
120 Hour Total Precipitation (in) ECMWF-MAXRES  
Valid: 00z Wed 17 May 2017 - 00z Mon 22 May 2017 Hour: 120 - 240



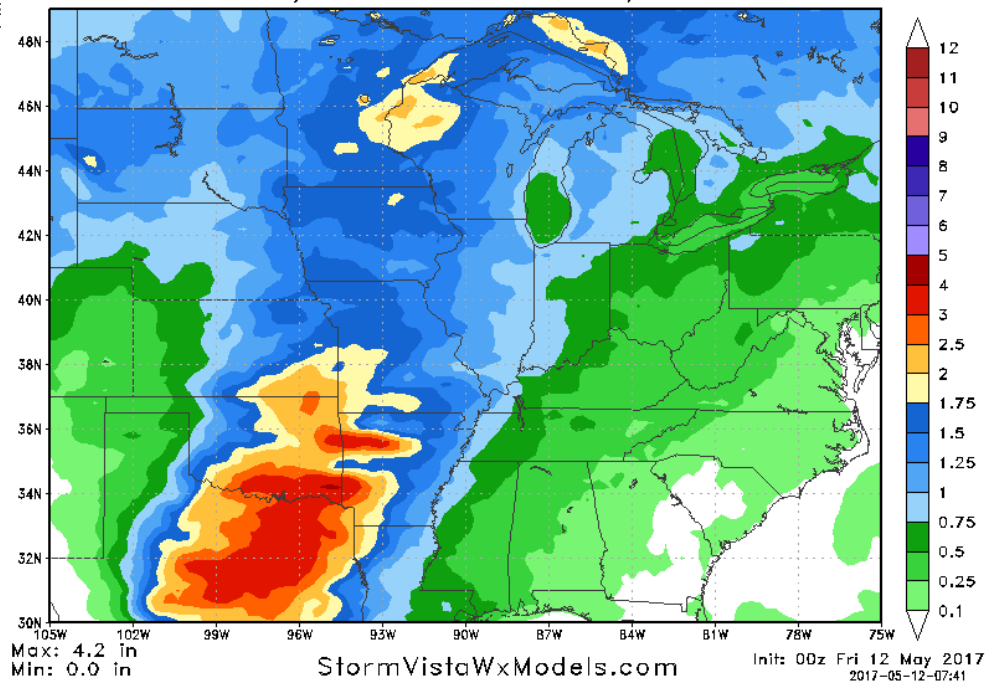


120 Hour Total Precipitation (in) GFS-ENS-MAXRES  
Valid: 00z Wed 17 May 2017 - 00z Mon 22 May 2017 Hour: 120 - 240

# EXCELLENT MODEL AGREEMENT for 6-10DAY



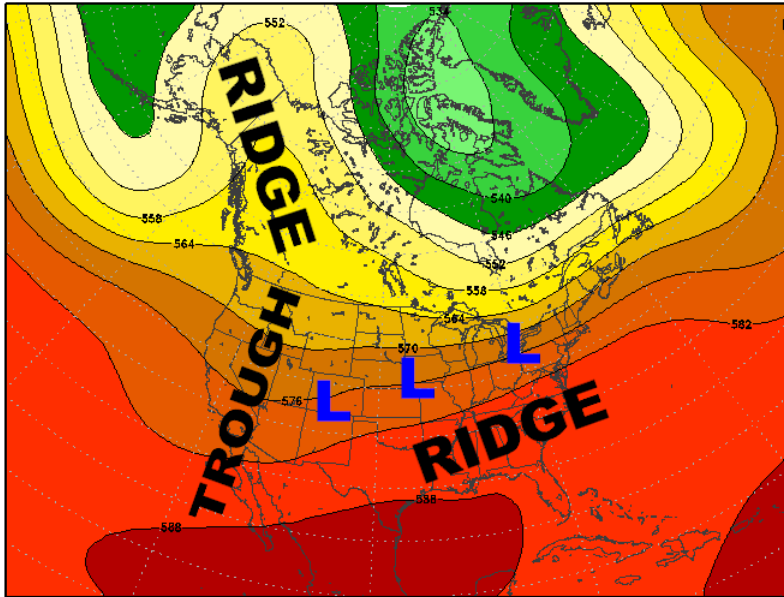
120 Hour Total Precipitation (in) ECMWF-EPS-MAXRES  
Valid: 00z Wed 17 May 2017 - 00z Mon 22 May 2017 Hour: 120 - 240



## Models keep increasing rain amounts over Lower Plains into ARK sw MO

500 mb Height  
Valid: 12z Mon 22 May 2017

ECMWF-EPS  
Hour: 252



**C 11-15DAY features  
persistent West coast  
trough & flat ridge over  
Deep South == wet  
pattern for Plains  
Midwest**

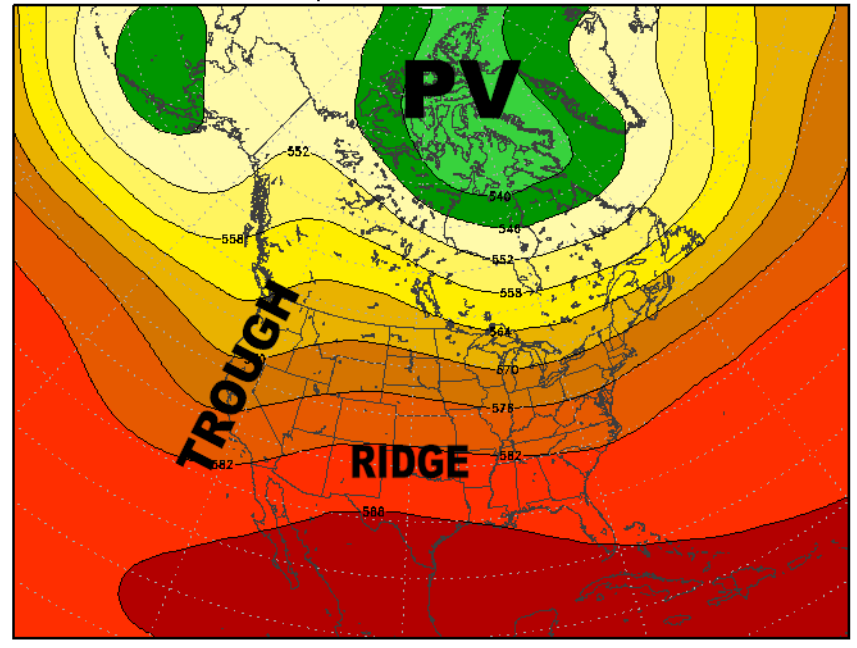
GRADS: COLA/IGES

StormVistaWxModels.com

Init: 00z Fri 12  
2017-C

500 mb Height  
Valid: 12z Fri 26 May 2017

ECMWF-EPS  
Hour: 348



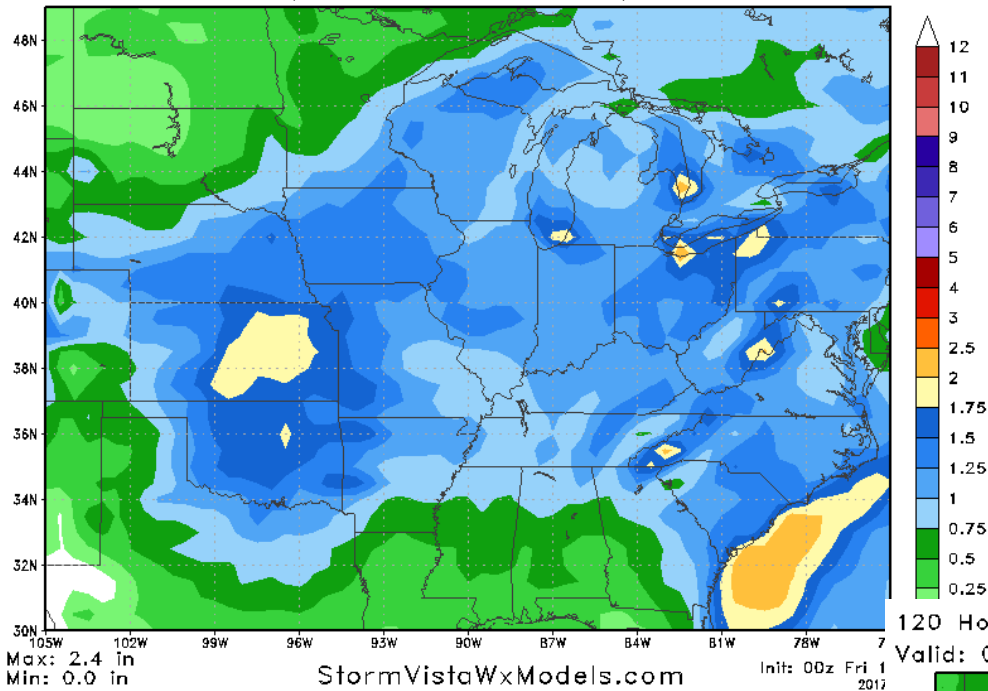
GRADS: COLA/IGES

StormVistaWxModels.com

Init: 00z Fri 12 May 2017  
2017-05-12-03:58

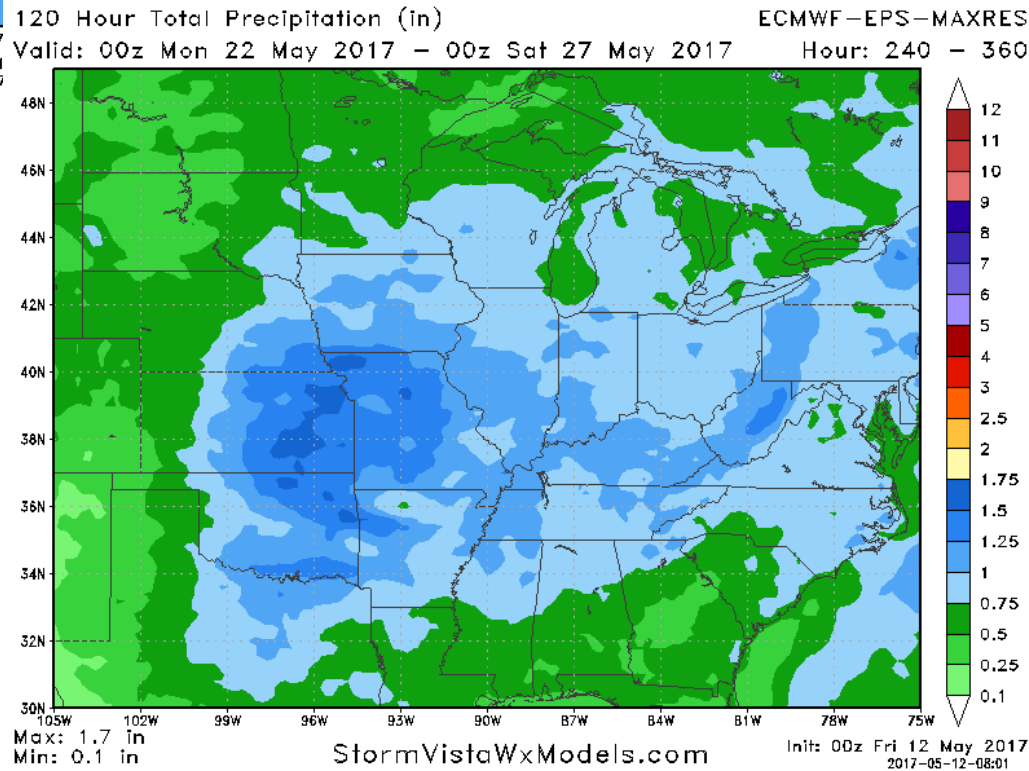
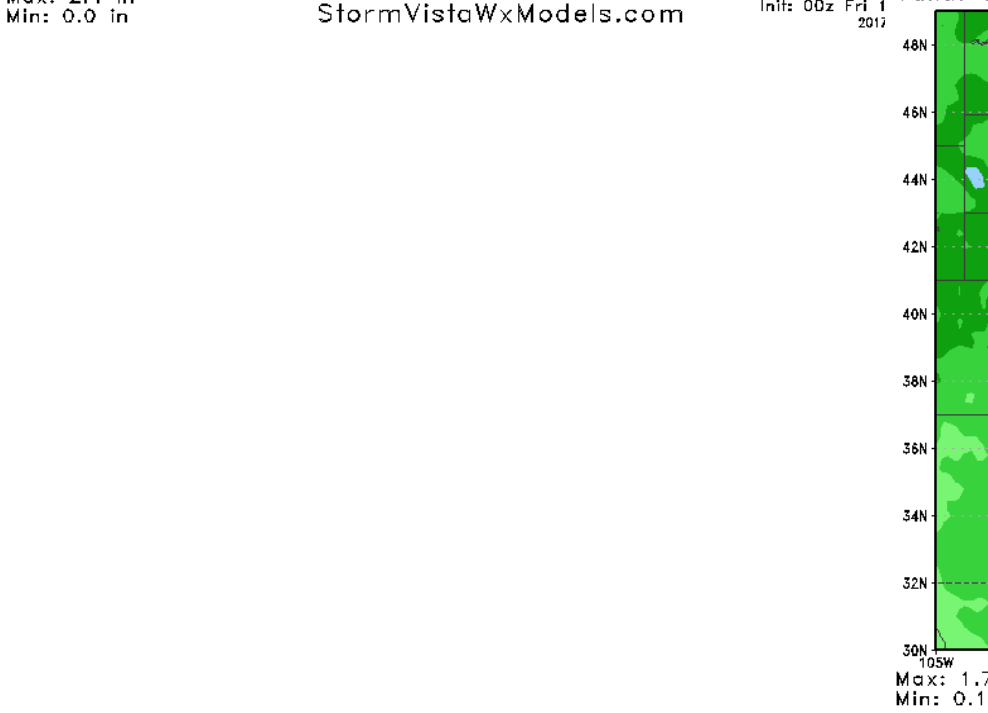


120 Hour Total Precipitation (in) GFS-ENS-MAXRES  
Valid: 00z Mon 22 May 2017 - 00z Sat 27 May 2017 Hour: 240 - 360

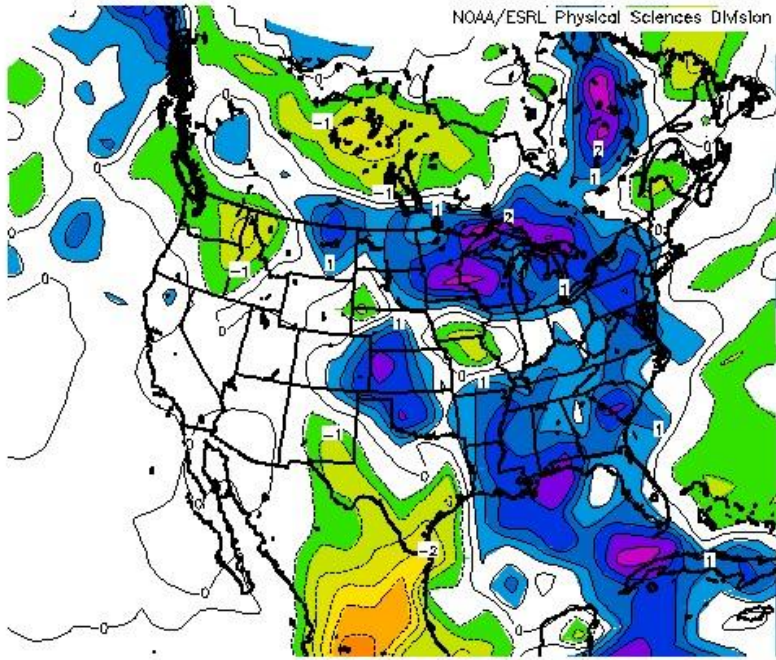


# EXCELLENT MODEL AGREEMENT got 11-15D

120 Hour Total Precipitation (in) ECMWF-EPS-MAXRES  
Valid: 00z Mon 22 May 2017 - 00z Sat 27 May 2017 Hour: 240 - 360



Max: 1.7 in  
Min: 0.1 in  
StormVistaWxModels.com  
Init: 00z Fri 12 May 2017  
2017-05-12-08:01



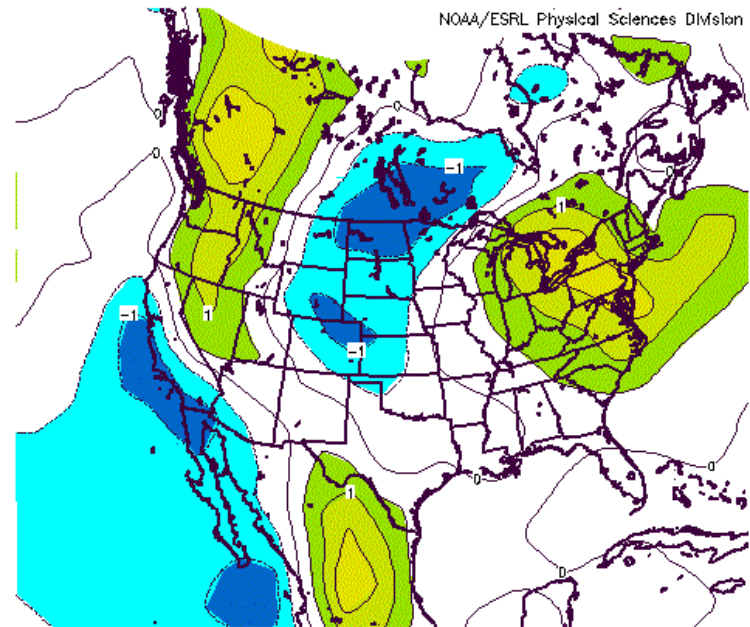
NOAA/ESRL Physical Sciences Division

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

**16-20 PRECIP upper left & temps bottom right = very wet Midwest Plains and cool**

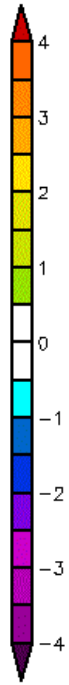
# ANALOG METHOD

- assumes Models in 11-15D are accurate then finds top 10 analog weather patterns then continues the pattern

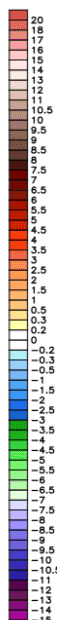
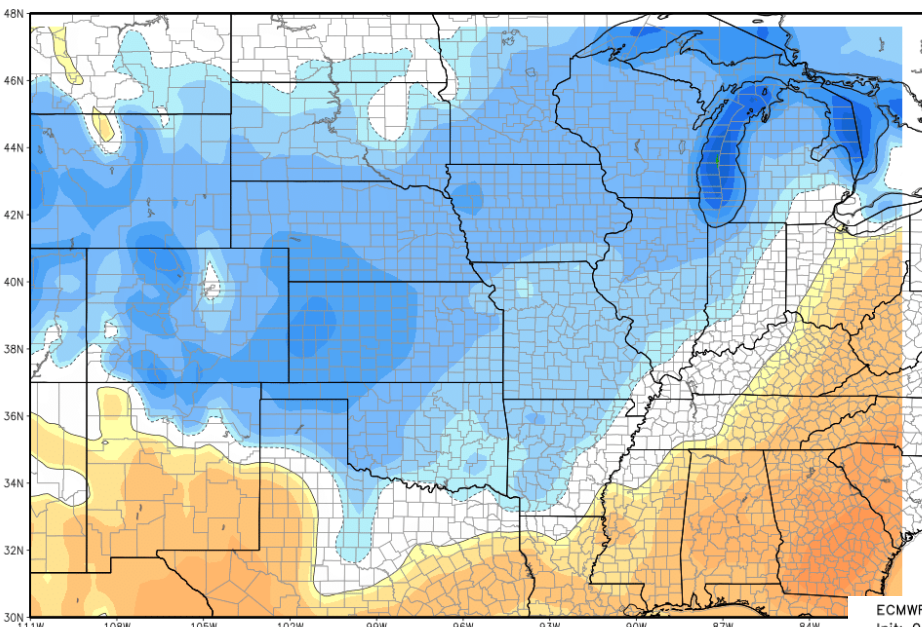


NOAA/ESRL Physical Sciences Division

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







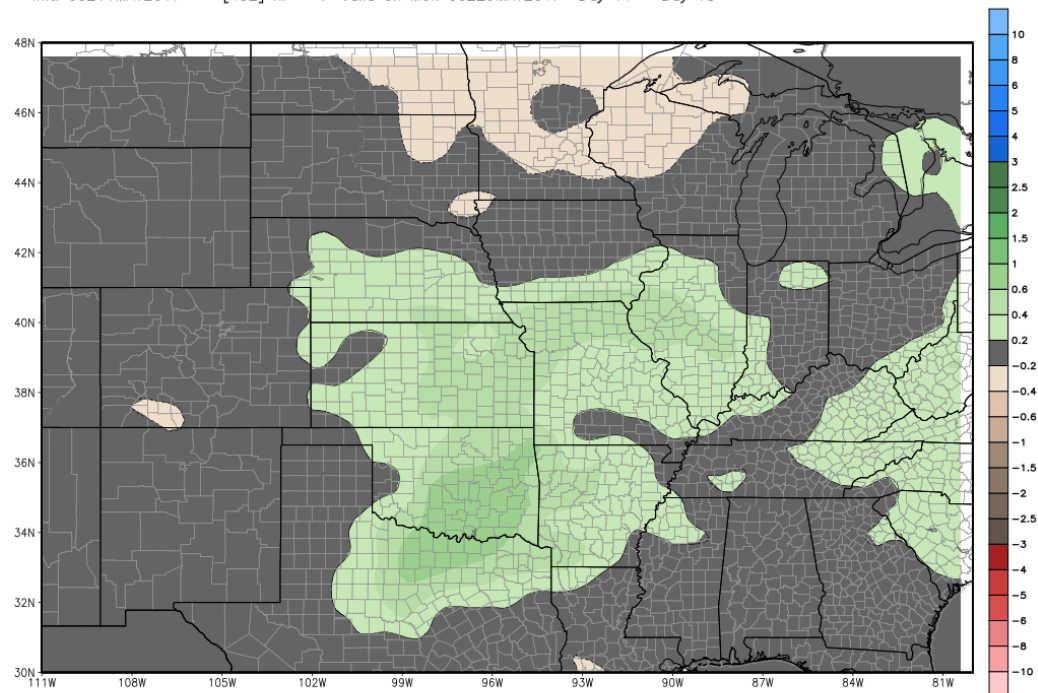
# EUROPEAN WEEKLY MODELS OVER USA MEMORIAL DAY WEEKEND

ECMWF EPS Ensemble Mean 7-day Avg Precipitation Anomaly [inch]  
Init: 00Z11MAY2017 -- [432] hr --> Valid on Mon 00Z29MAY2017 Day 11 - Day 18

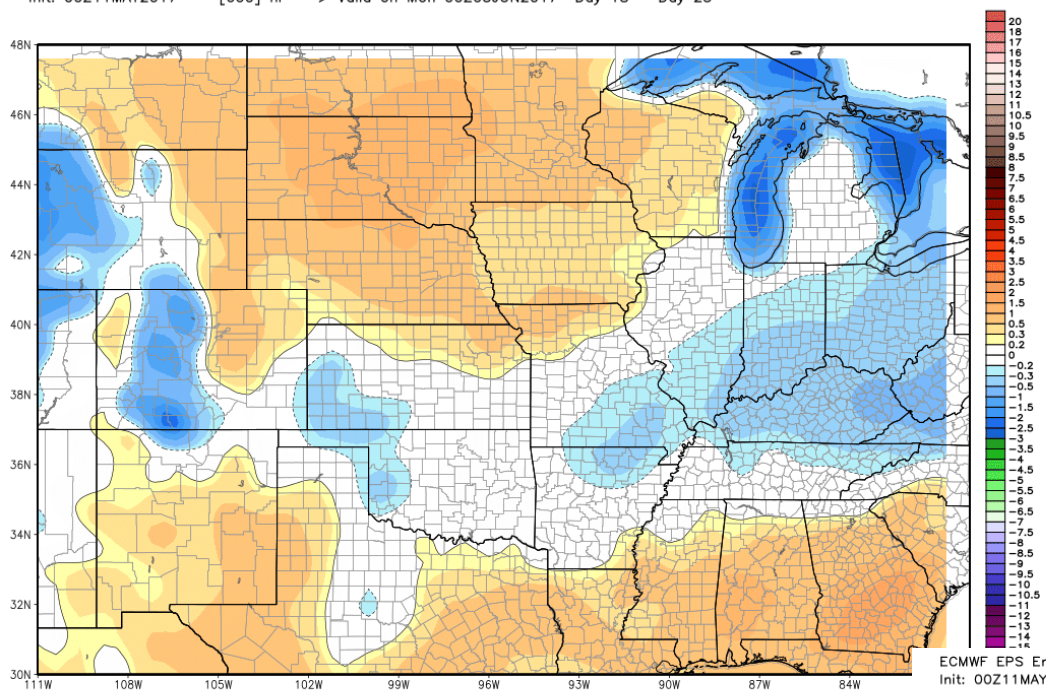
Min|Max Anom: -0.6 | 1.0 inch

Average between 00Z22MAY2017-00Z29MAY2017 | ECMWF EPS 1997-2016 Hindcast Climatology

## COOL & WET



Accumulation between 00Z22MAY2017-00Z29MAY2017 | ECMWF EPS 1997-2016 Hindcast Climatology

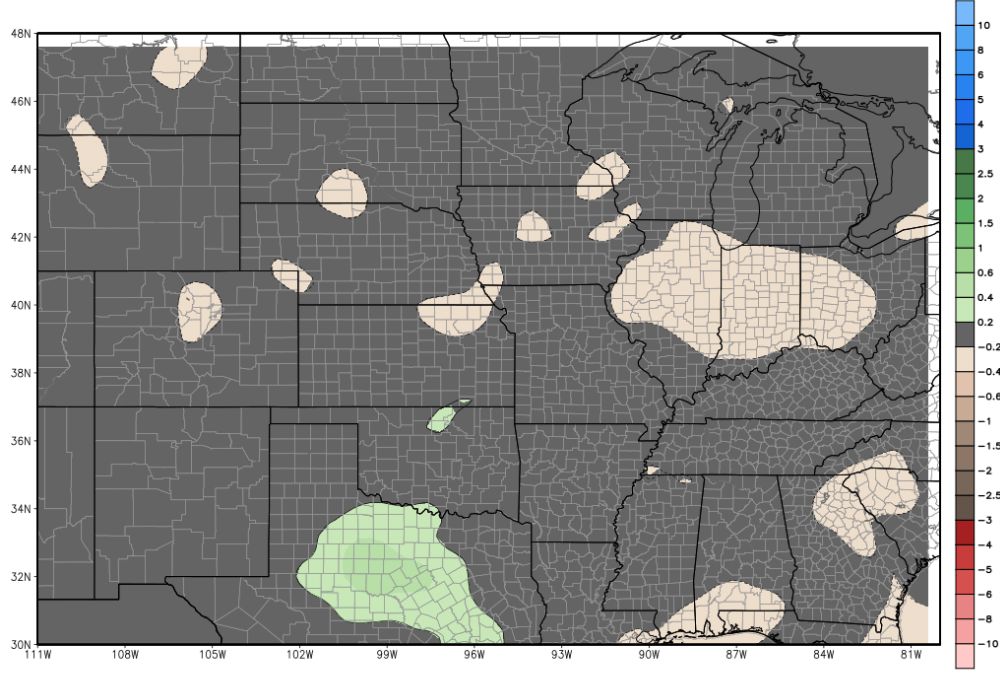


**1<sup>ST</sup> WEEK OF  
JUNE ...  
WARMER  
DRIER ???**

ECMWF EPS Ensemble Mean 7-day Avg Precipitation Anomaly [inch]  
Init: 00Z11MAY2017 -- [600] hr --> Valid on Mon 00Z05JUN2017 Day 18 - Day 25

Min|Max Anom: -0.4 | 0.6 inch

Average between 00Z29MAY2017-00Z05JUN2017 | ECMWF EPS 1997-2016 Hindcast Climatology



Accumulation between 00Z29MAY2017-00Z05JUN2017 | ECMWF EPS 1997-2016 Hindcast Climatology

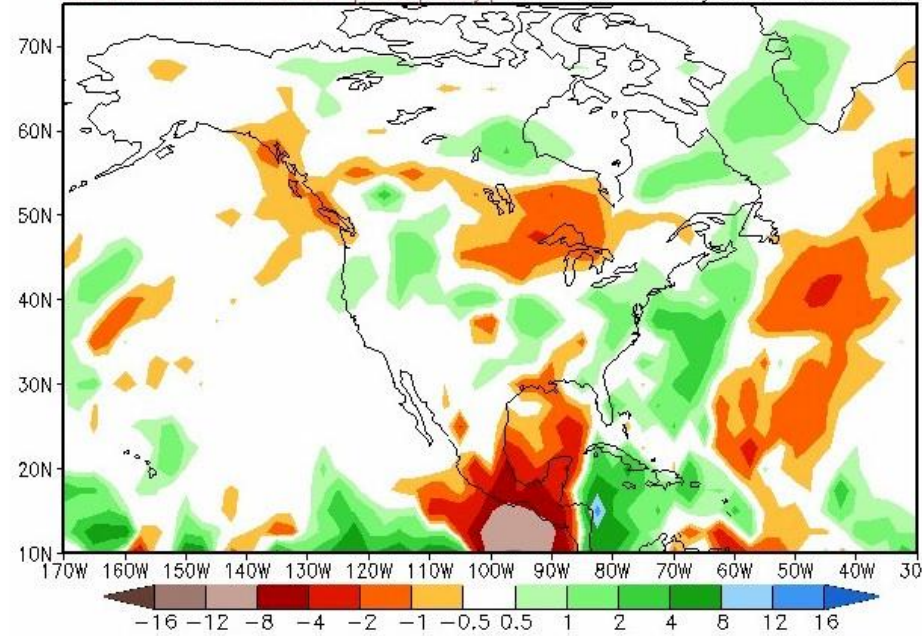


# CFS FROM MAY 11 valid 5/26- 6/1

CFSv2 Weeks 3 & 4 Precipitation

16 Member Ensemble Mean Forecast from 11May2017

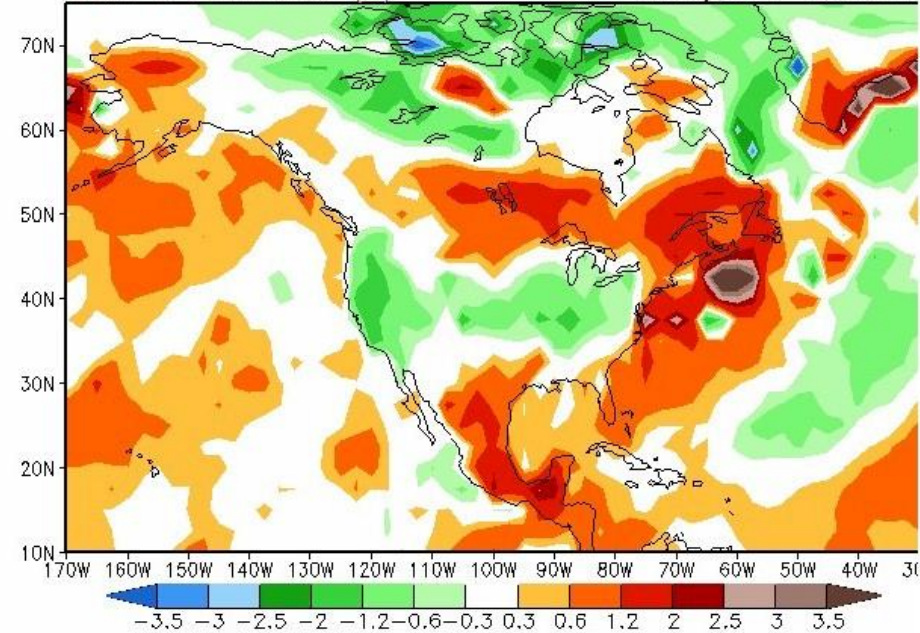
Week 3 Anomalies (mm/day) 26May2017-1Jun2017



CFSv2 Extended Range Temperature

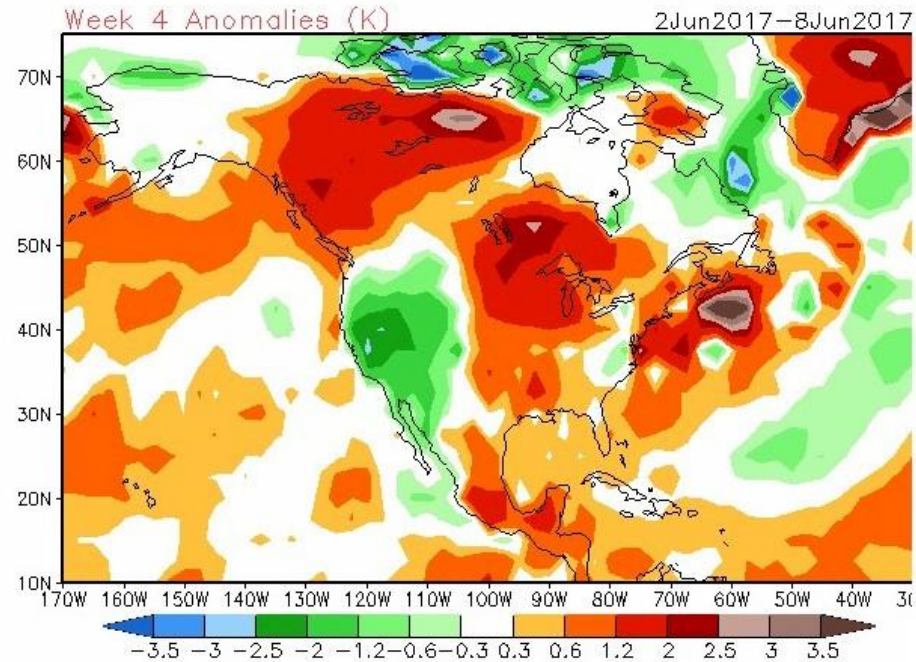
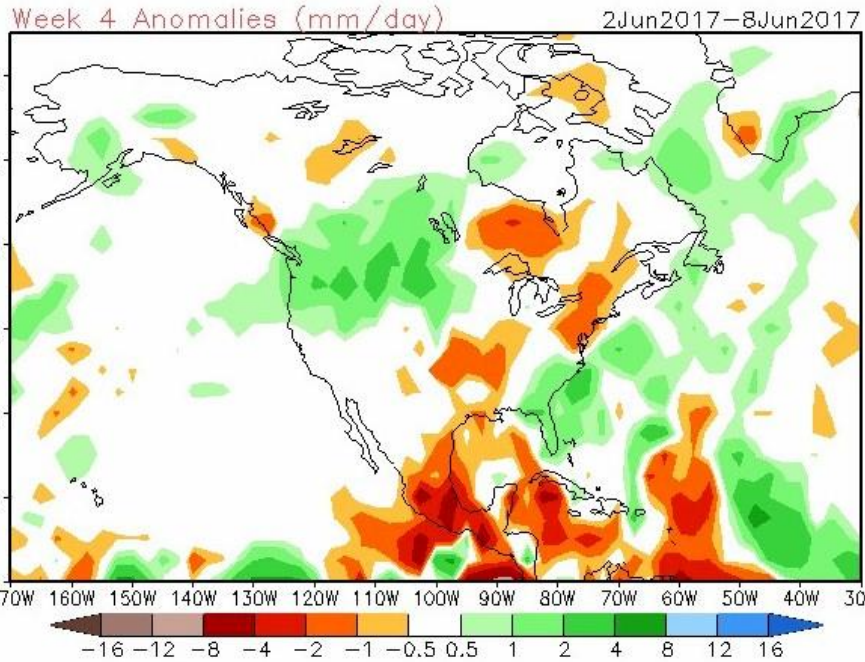
16 Member Ensemble Mean Forecast from 11May2017

Week 3 Anomalies (K) 26May2017-1Jun2017



**looks fairly wet central Plains & Midwest & cool**

# CFS FROM MAY 11 valid 6/2- 6/8

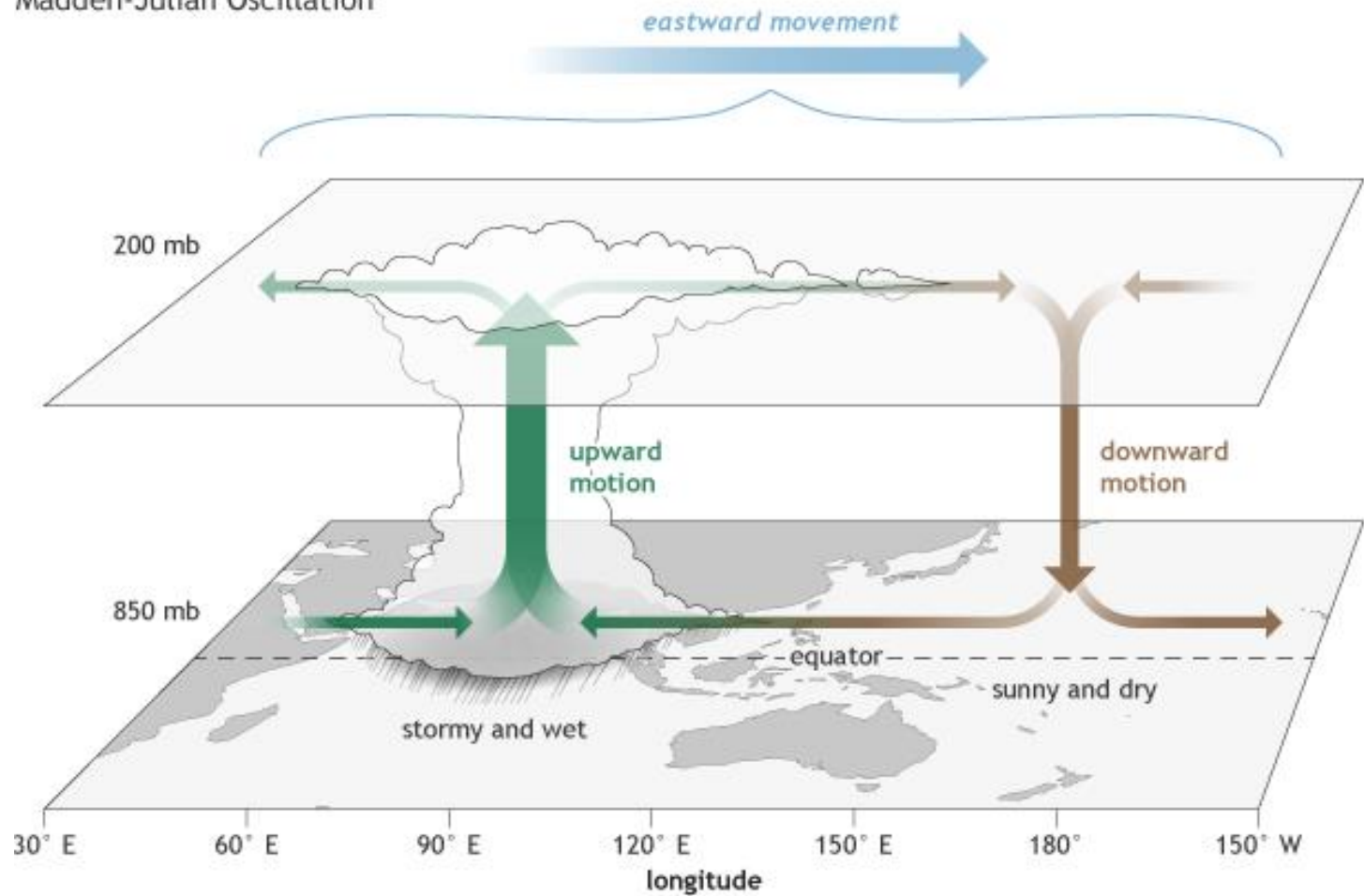


**WET over Upper Plains into south Canada WARMER over all of Plains Midwest**

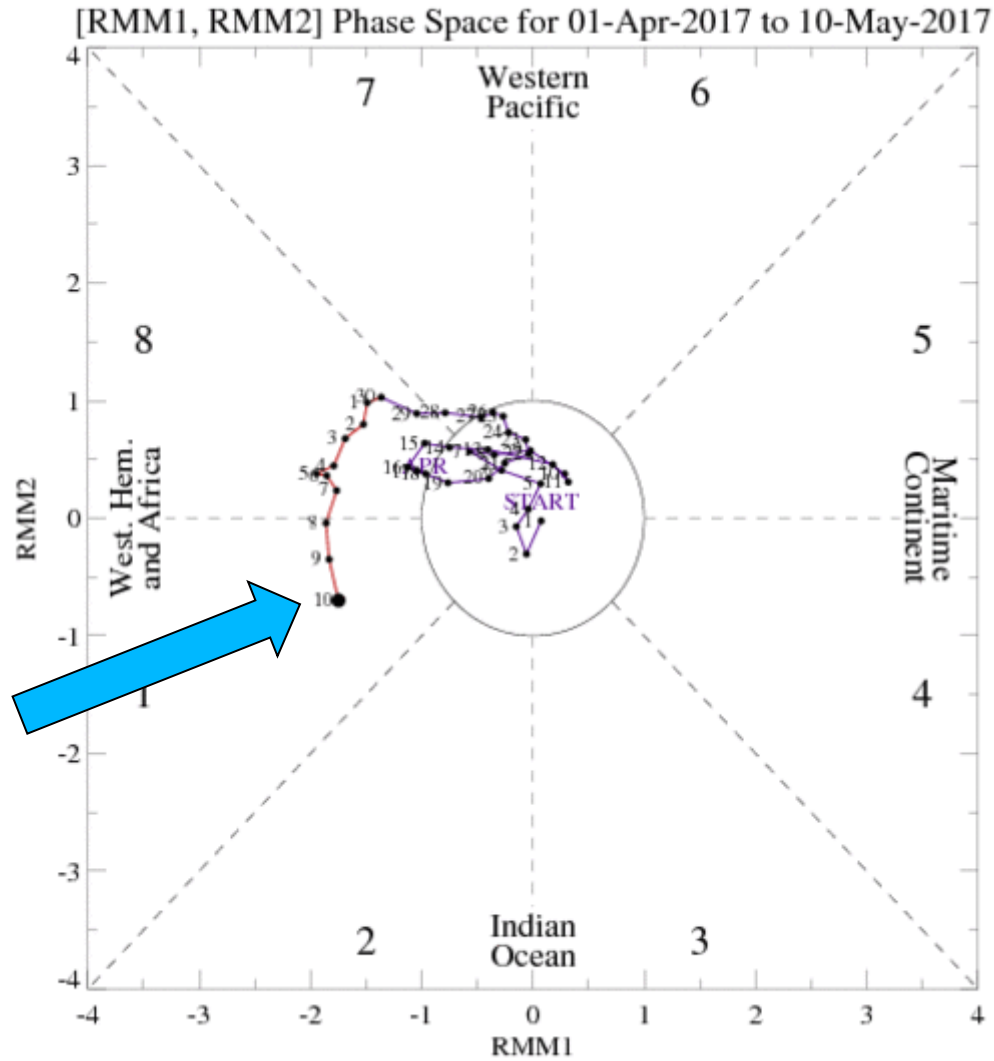


# LETS TALK MJO/ENSO

Madden-Julian Oscillation

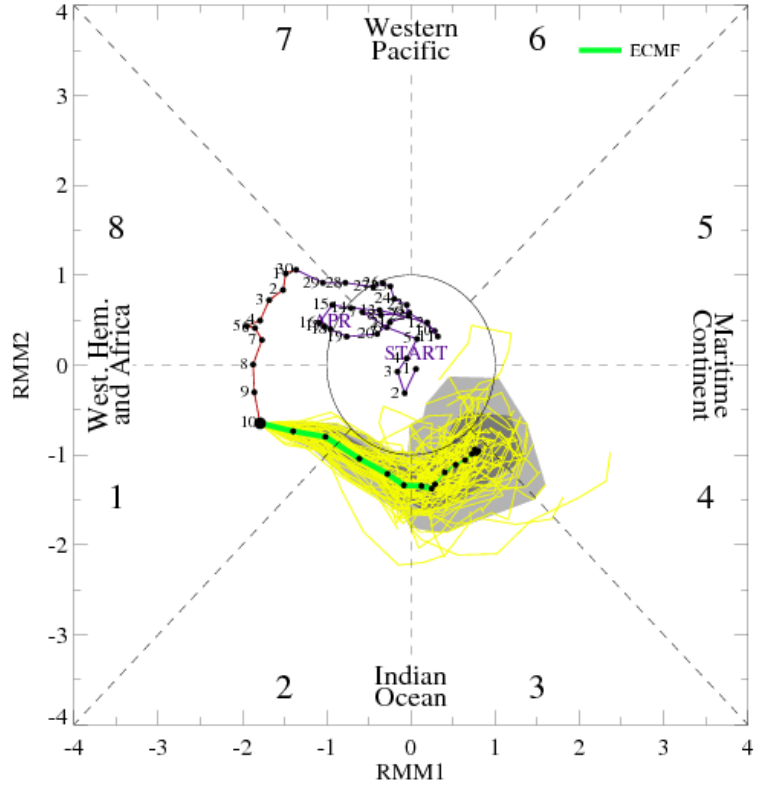


# MJO NOW IN NEUTRAL

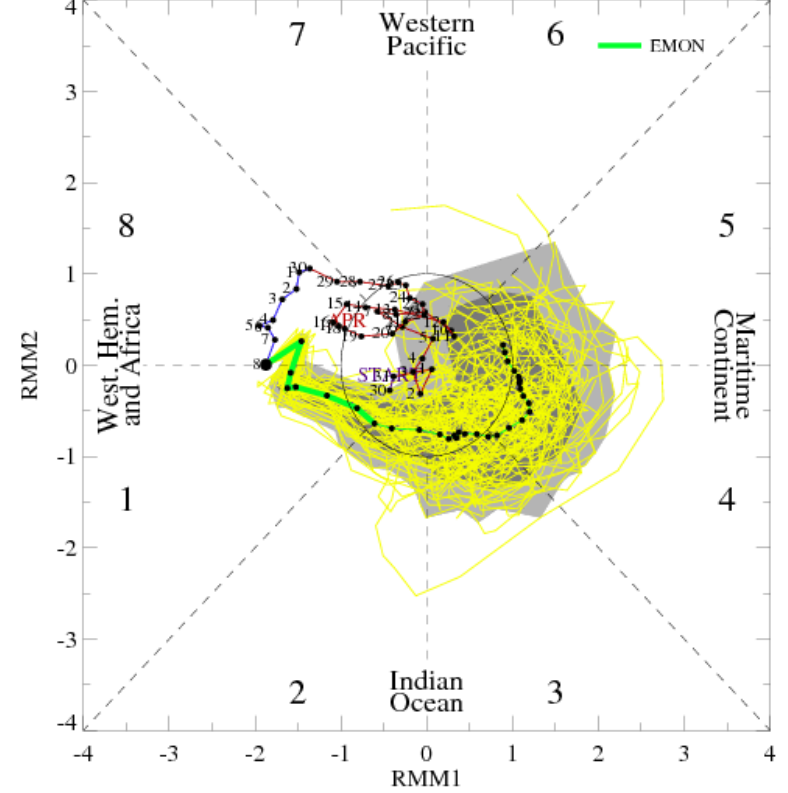




MJO Index Forecast for 11May2017-25May2017



MJO Index Forecast for 09May2017-09Jun2017



# MJO IN PHASE 2 & 3 = turning WETTER over central Plains & Most of the Midwest with BELOW NORMAL TEMPS ALL AREAS

P composites (AMJ)



T composites (AMJ)





# EL NIÑO/SOUTHERN OSCILLATION (ENSO) DIAGNOSTIC DISCUSSION

issued by

CLIMATE PREDICTION CENTER/NCEP/NWS  
and the International Research Institute for Climate and Society

11 May 2017

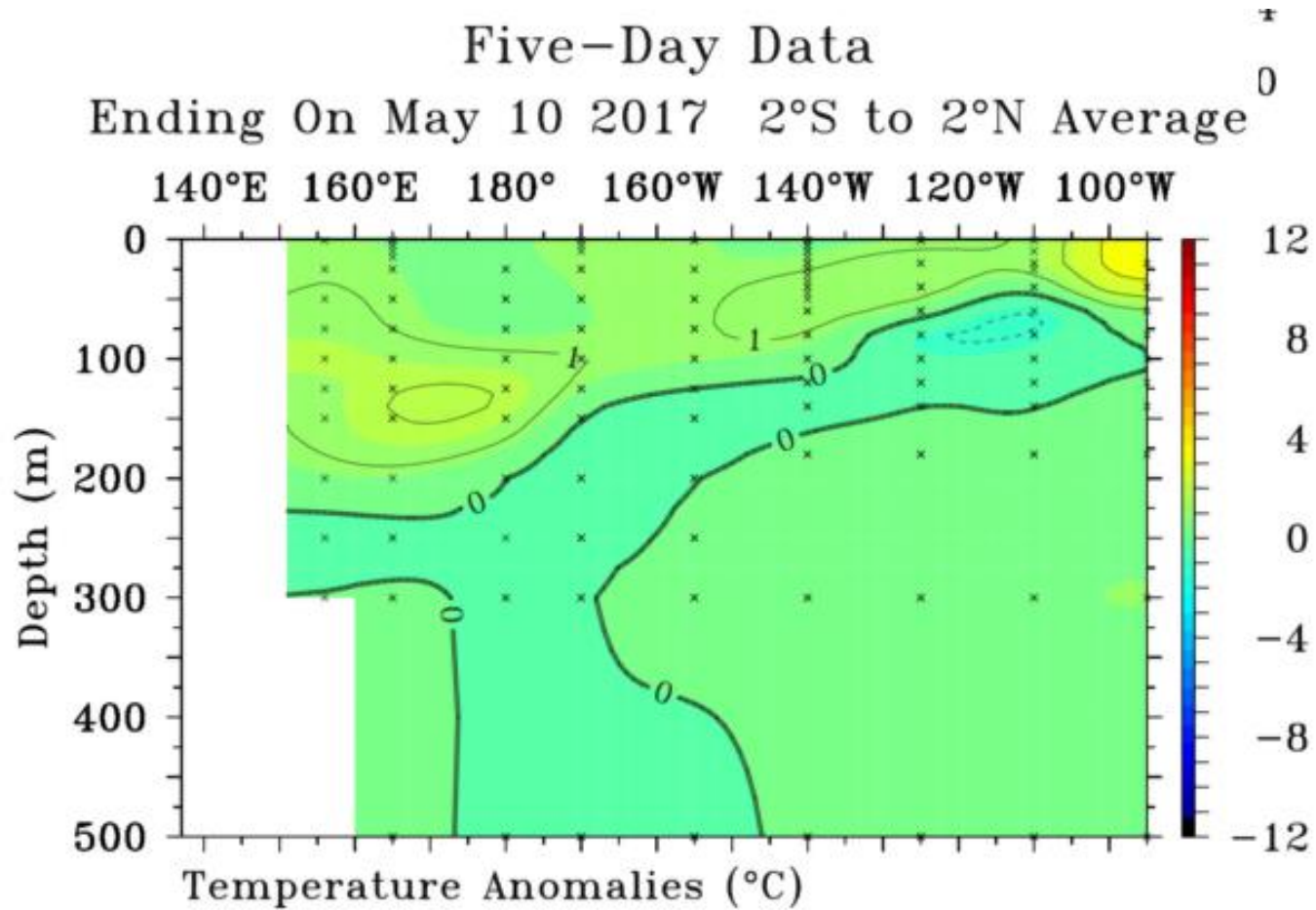
ENSO Alert System Status: Not Active

**Synopsis:** ENSO-neutral and El Niño are nearly equally favored during the Northern Hemisphere summer and fall 2017.

ENSO-neutral persisted during April, with near-average sea surface temperatures (SSTs) observed across the central equatorial Pacific and above-average SSTs in the eastern Pacific (Fig. 1). The latest weekly Niño index values were  $+0.5^{\circ}\text{C}$  in the Niño-3 and Niño-3.4 regions, and  $+0.3$  and  $+0.8^{\circ}\text{C}$  in the Niño-4 and Niño-1+2 regions, respectively (Fig. 2). The upper-ocean heat content anomaly was slightly positive during April (Fig. 3), reflecting the strengthening of above-average temperatures at depth around the Date Line (Fig. 4). Atmospheric convection anomalies were weak over the central tropical Pacific and Maritime Continent (Fig. 5), while the lower-level and upper-level winds were near average over most of the tropical Pacific. Overall, the ocean and atmosphere system remains consistent with ENSO-neutral.

Most models predict the onset of El Niño (3-month average Niño-3.4 index at or greater than  $0.5^{\circ}\text{C}$ ) during the Northern Hemisphere summer (Fig. 6). However, the NCEP CFSv2 and most of the statistical models are more conservative and indicate that while Niño-3.4 index may be near or greater than  $+0.5^{\circ}\text{C}$  for several months, the warmth may not last long enough to qualify as an El Niño episode (5 consecutive overlapping seasons) and/or may not significantly impact the atmospheric circulation. Relative to last month, the forecaster consensus reflects slightly lower chances of El Niño ( $\sim 45\%$ ), in part due to the conflicting model guidance and lack of a clear shift toward El Niño in the observational data. In summary, while chances are slightly lower than 50%, ENSO-neutral and El Niño are nearly equally favored during the Northern Hemisphere summer and fall 2017 (click [CPC/IRI consensus forecast](#) for the chance of each outcome for each 3-month period).

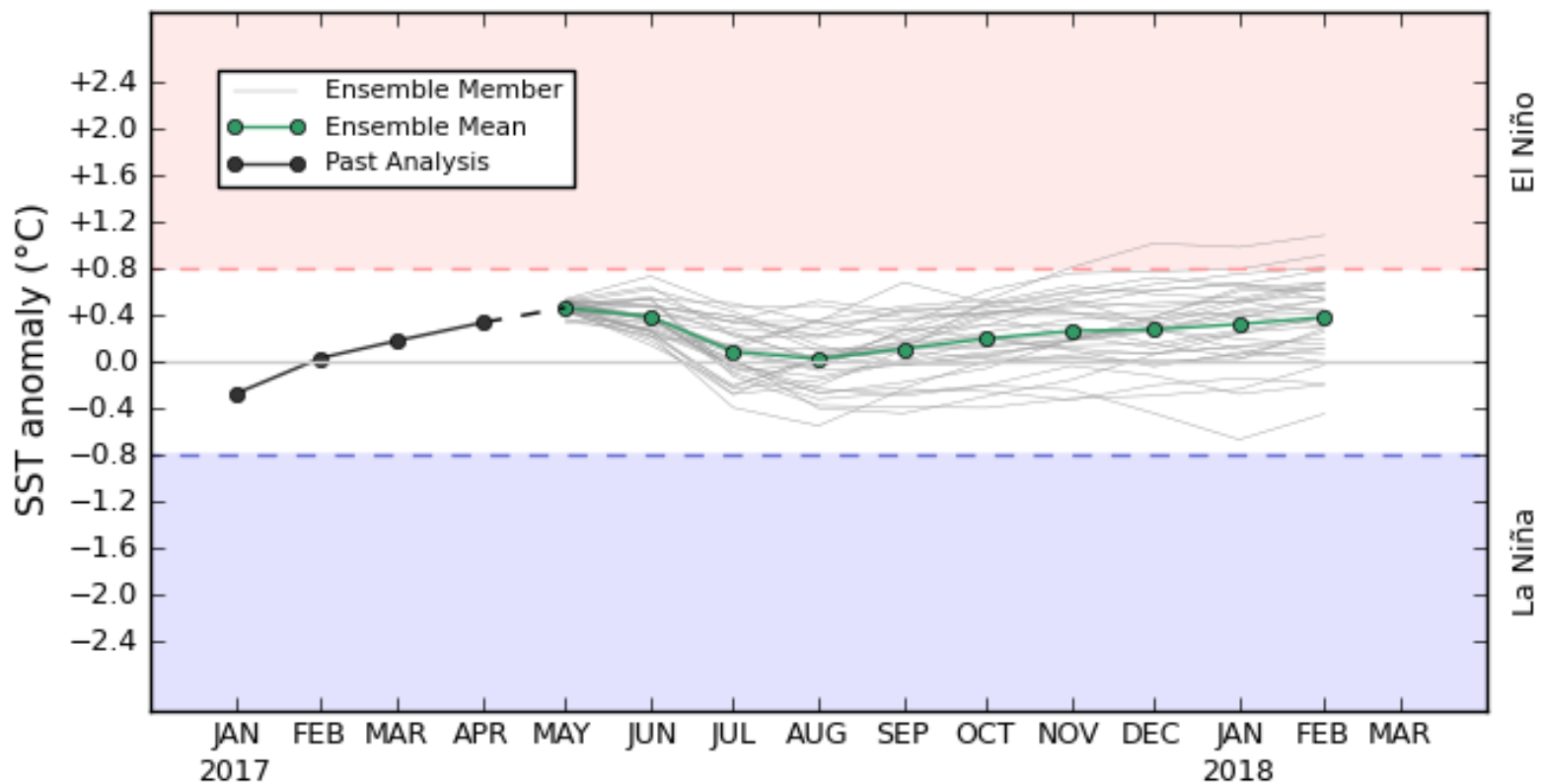
# still a lot of cold SSTAs just under the surface as of MAY 10 = Restricting El Nino development



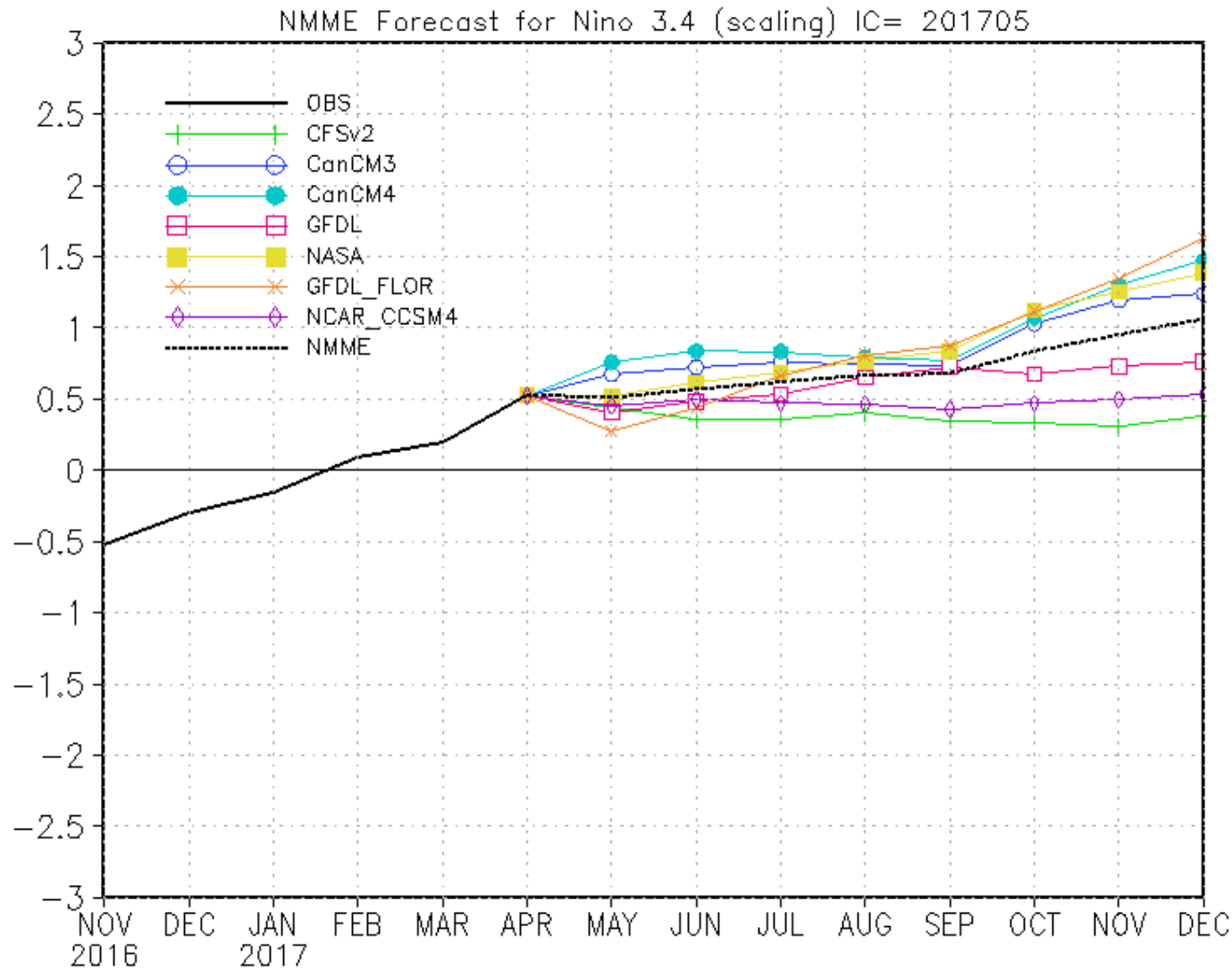


# NEW AUSTRALIAN ENSO MODEL – again shows NO El Niño– actual COOLING in July August

POAMA monthly mean NINO34 - Forecast Start: 7 MAY 2017

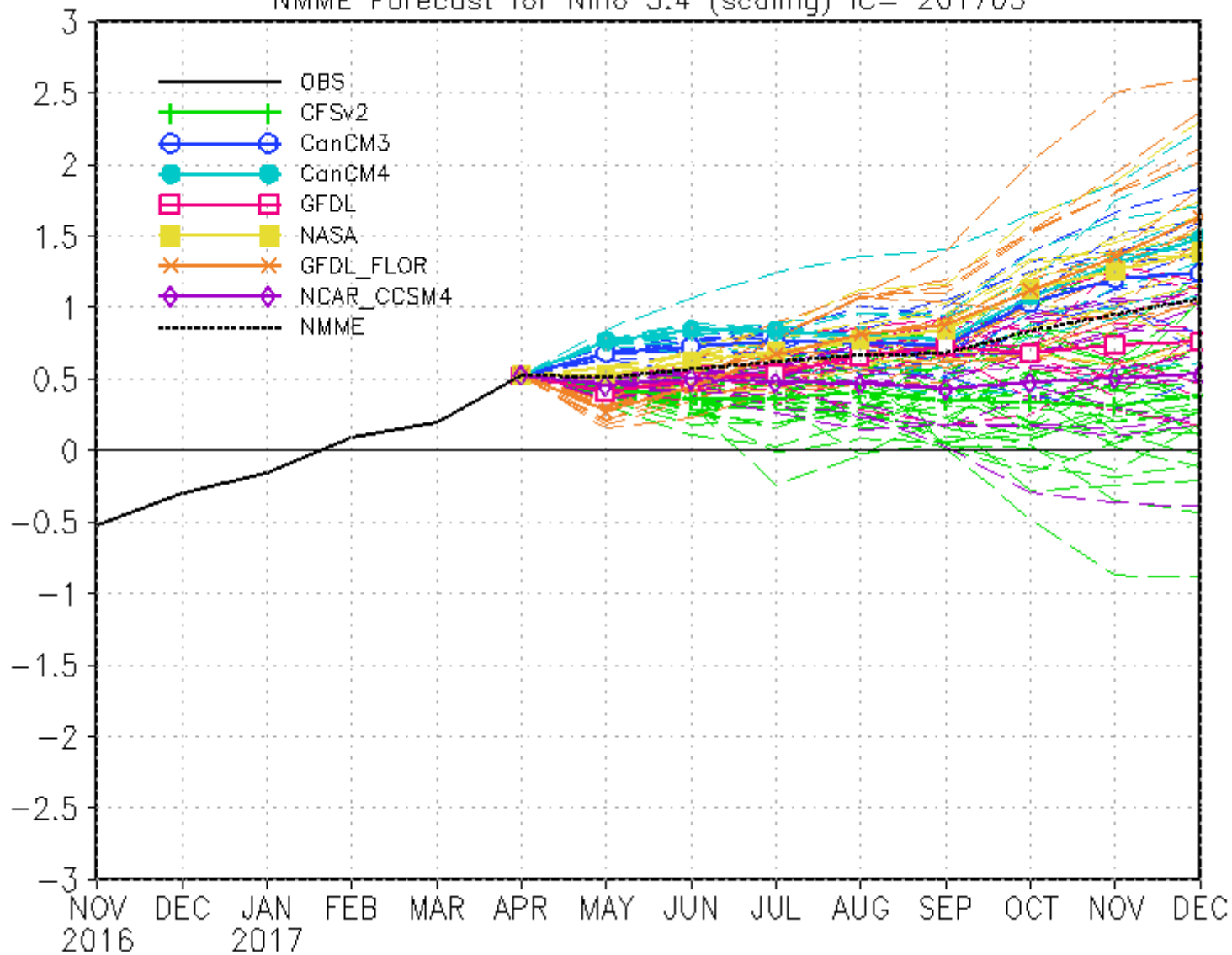


# various forecast models used in the NMME - NATIONAL ENSEMBLE MEAN. At Best minimum EL Nino





NMME Forecast for Nino 3.4 (scaling) IC= 201705

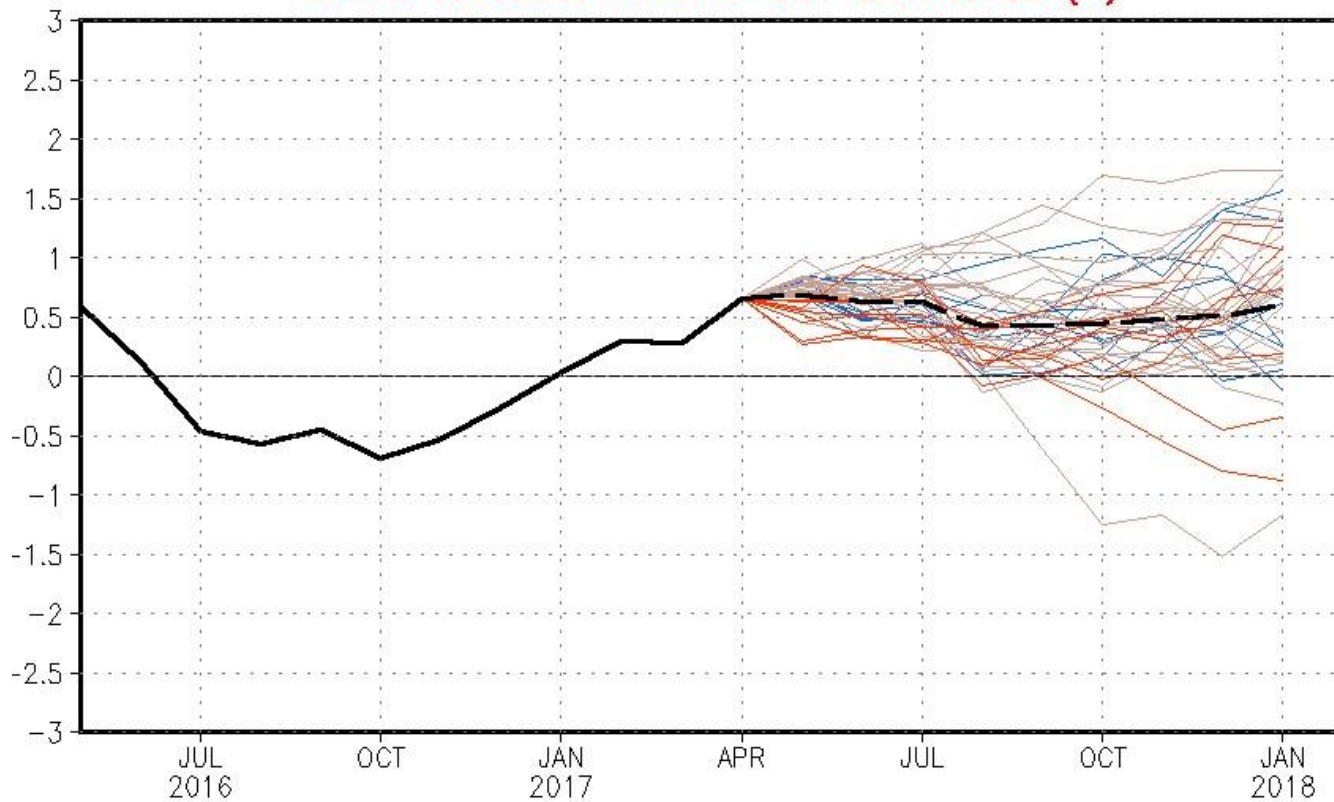


# CFS FROM MAY 4 - based on data 4/23- 5/2

NWS/NCEP/CPC

Last update: Thu May 4 2017  
Initial conditions: 23Apr2017-2May2017

CFSv2 forecast Nino3.4 SST anomalies (K)



— Latest 8 forecast members  
— Earliest 8 forecast members  
— Other forecast members

--- Forecast ensemble mean  
— NCDC daily analysis



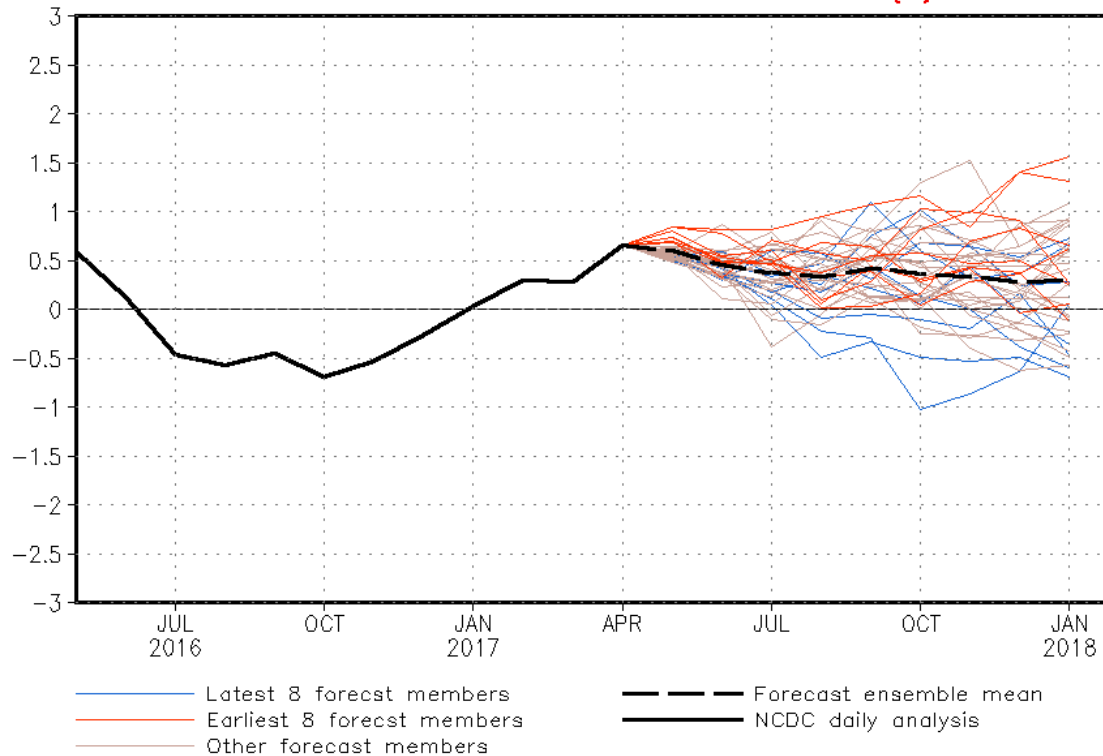
# CFS FROM MAY 12 - based on data 5/1- 5/10.. Looks cooler weaker. Again Notice how DASHED line drops down weakens in JULY AUG



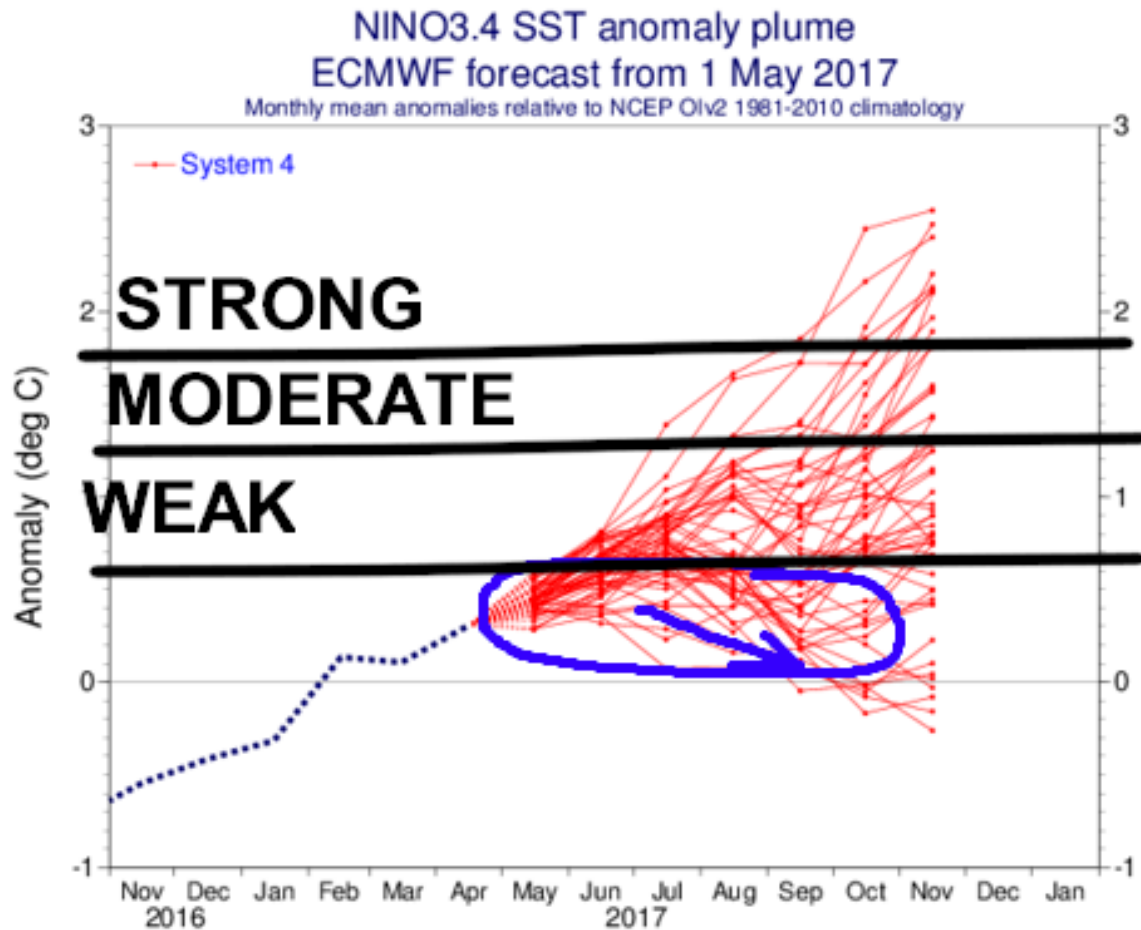
NWS/NCEP/CPC

Last update: Fri May 12 2017  
Initial conditions: 1May2017-10May2017

CFSv2 forecast Nino3.4 SST anomalies (K)



# CEURO ENSO MODEL – 51 members issued MAY6- Again Notice how cluster of members that shows weakens in JULY AUG

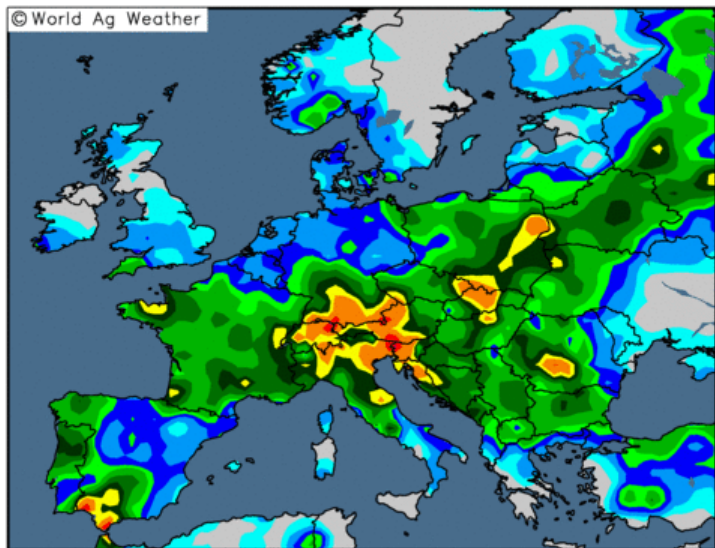




**EUROPE**  
**CHINA GRAIN**  
**WEATHER**

# 14-day Precipitation Analysis

Observed precipitation (inches) through 12 UTC 10 May 2017



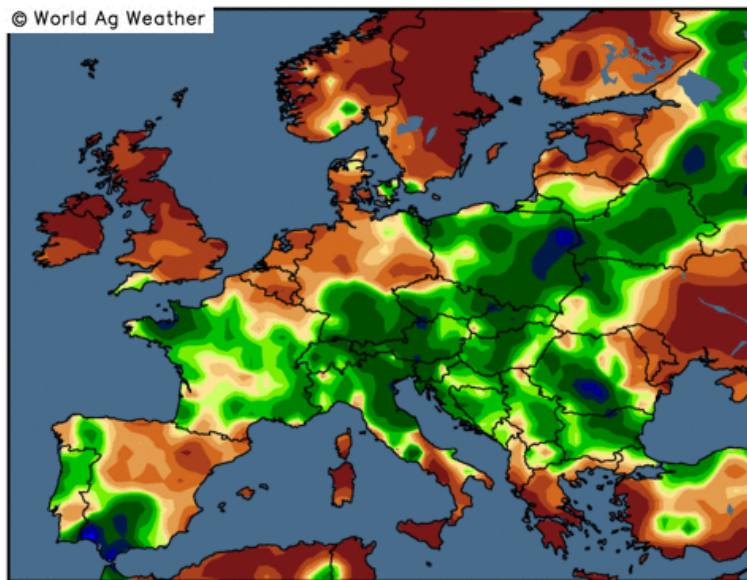
0.1 0.25 0.5 0.75 1 1.5 2 2.5 3 4 5 6 8 10

Map updates daily by approximately 20:30 UTC

# EUROPE IN GOOD SHAPE WITH RAINS LAST 2 WEEKS

## 14-day Precipitation Analysis

Percent of normal through 12 UTC 10 May 2017

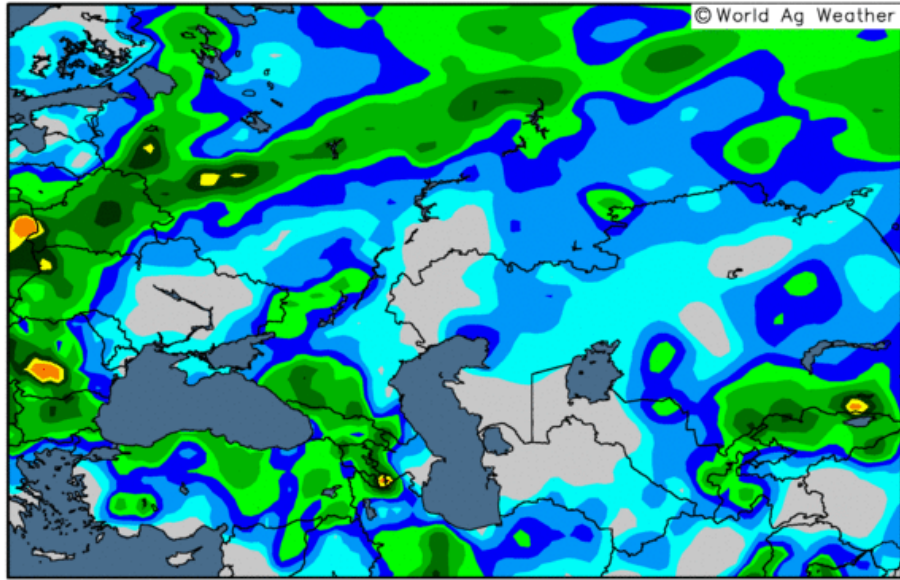


20 40 60 80 90 100 110 125 150 200 300 400 600

Map updates daily by approximately 20:30 UTC

# 14-day Precipitation Analysis

Observed precipitation (inches) through 12 UTC 10 May 2017



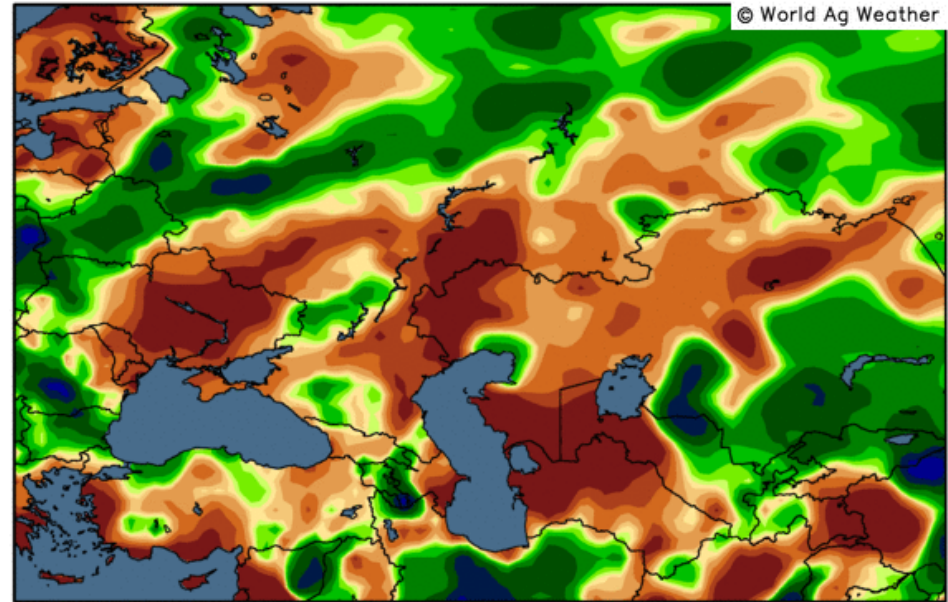
0.1 0.25 0.5 0.75 1 1.5 2 2.5 3 4 5 6 8 10

Map updates daily by approximately 20:30 UTC

# UKRAINE & MUCH OF SW RUSSIA DRY LAST 2 WEEKS

## 14-day Precipitation Analysis

Percent of normal through 12 UTC 10 May 2017



20 40 60 80 90 100 110 125 150 200 300 400 600

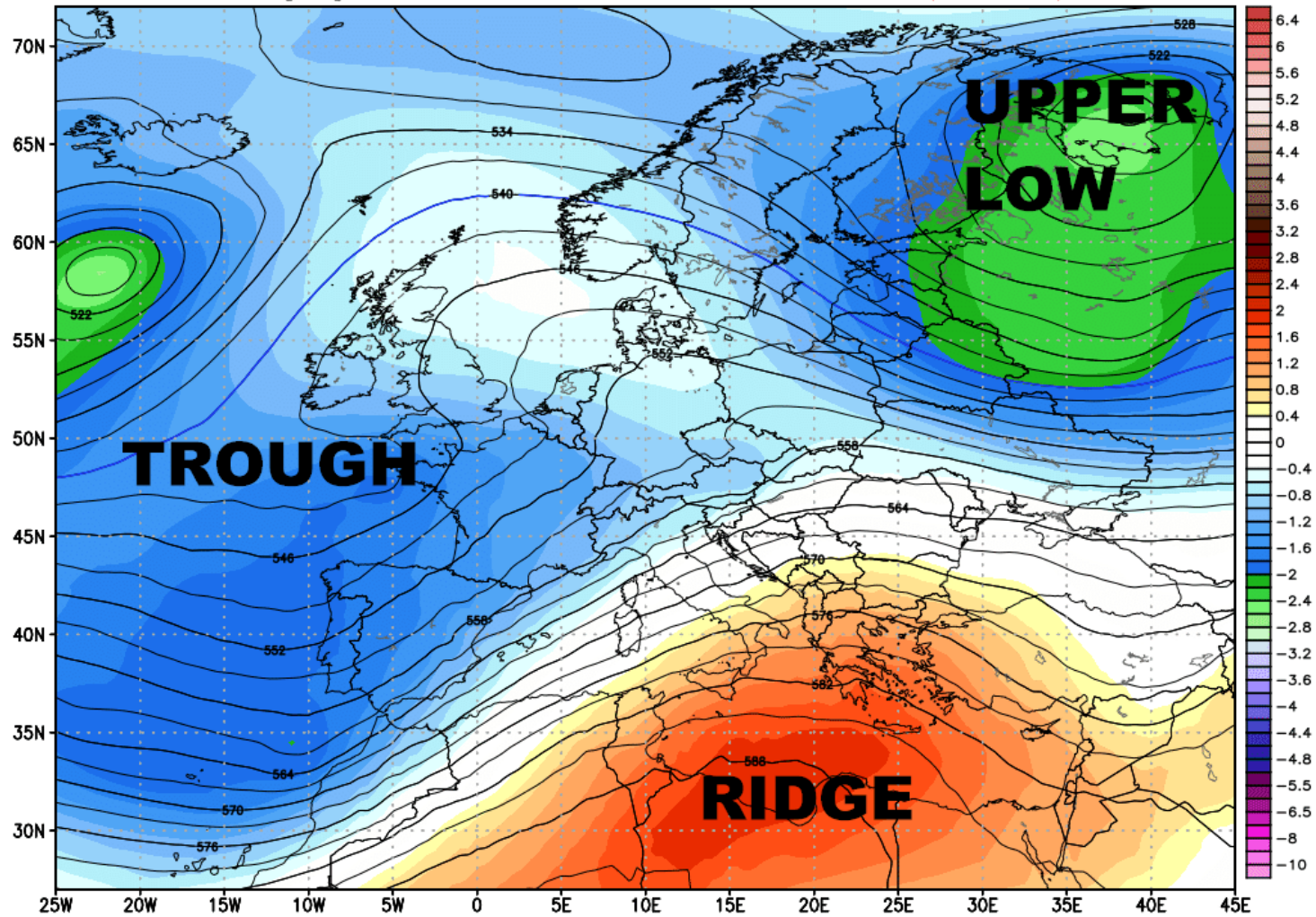
Map updates daily by approximately 20:30 UTC



# Currnet weather pattern= wet for all areas .. Western eastern EUROPE & cool

ECMWF EPS Ensemble Mean 500 hPa Z [dm] & Normalized Anomaly [std devs]  
INIT: 00Z12MAY2017 fx: [000] hr --> Fri 00Z12MAY2017

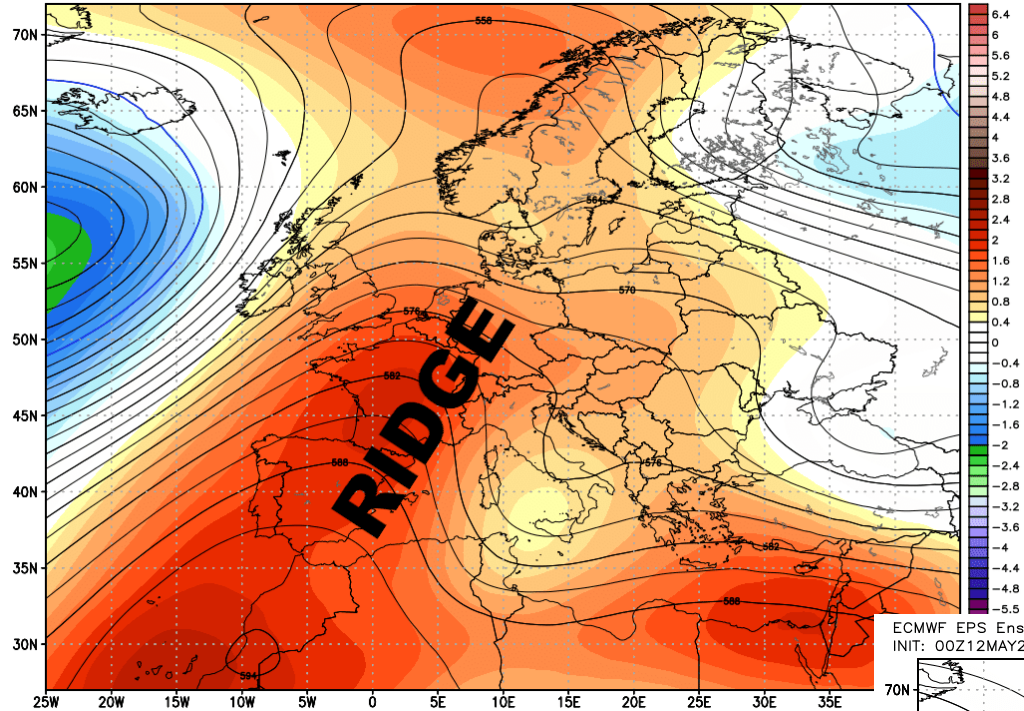
Min|Max: -2.6 | 2.0 std dev



ECMWF EPS Ensemble Mean 500 hPa Z [dm] & Normalized Anomaly [std devs]

INIT: 00Z12MAY2017 fx: [084] hr --> Mon 12Z15MAY2017

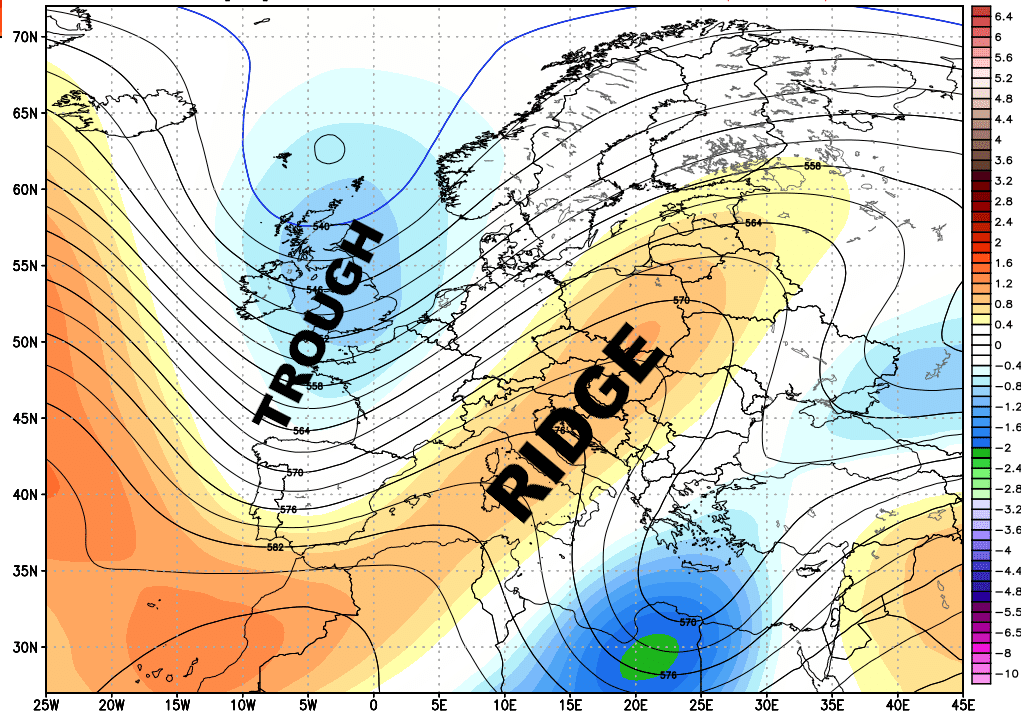
Min|Max: -2.2 | 2.4 std dev



ECMWF EPS Ensemble Mean 500 hPa Z [dm] & Normalized Anomaly [std devs]

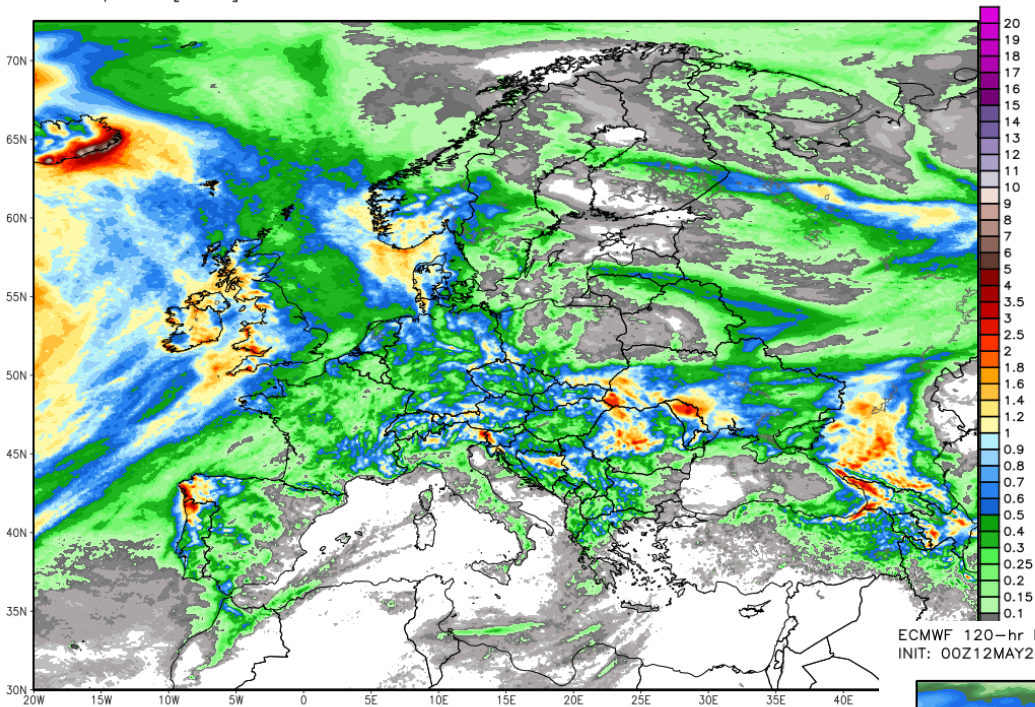
INIT: 00Z12MAY2017 fx: [156] hr --> Thu 12Z18MAY2017

Min|Max: -2.1 | 1.4 std dev



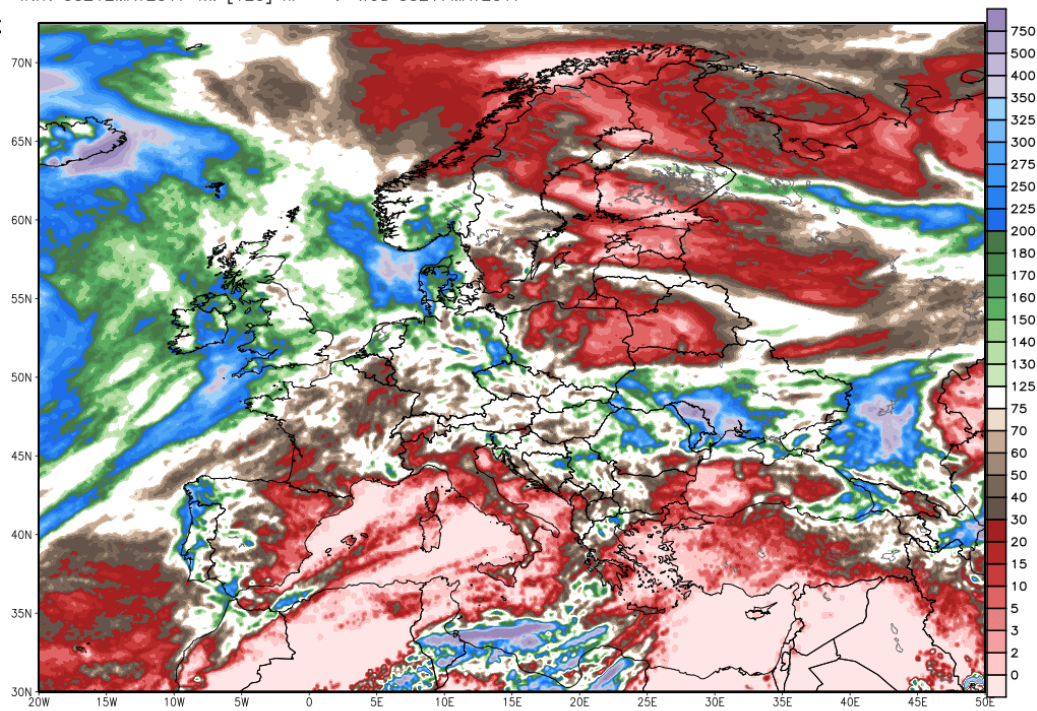


ECMWF 120-hourly Precipitation [inch] INIT: 00Z12MAY2017 fx: [120] hr --> Wed 00Z17MAY2017  
Total Precipitation [inches] between 00Z12MAY2017 -- 00Z17MAY2017



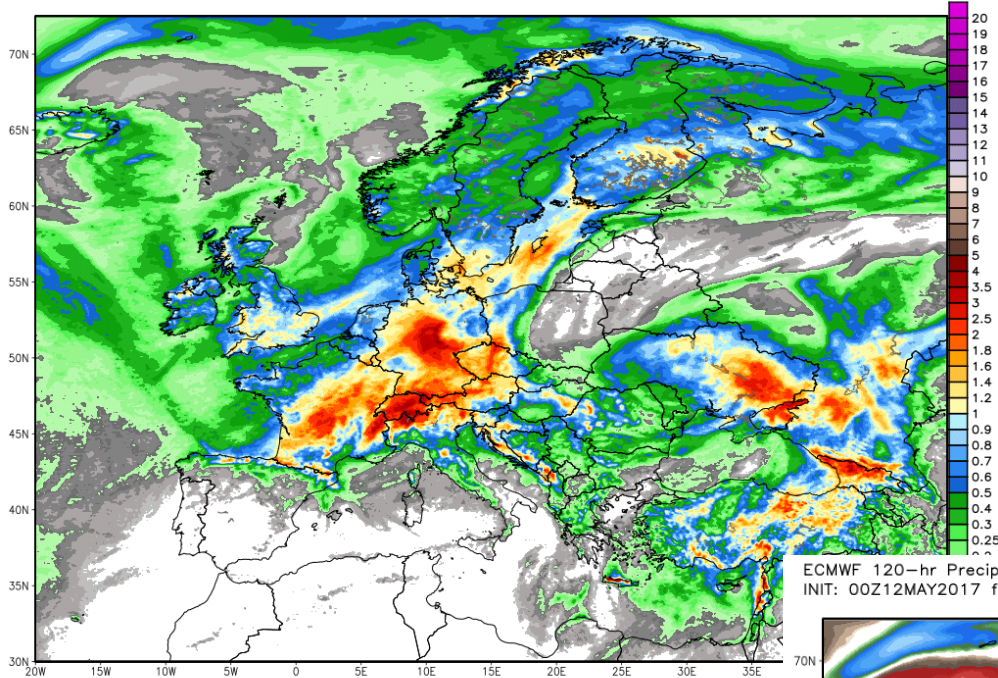
**Moderate rains over much of Europe 1-2" / 25-50mm over much of UKRAINE & SOUTHERN District**

ECMWF 120-hr Precip Anomaly [% of normal] between 00Z12MAY2017 -- 00Z17MAY2017  
INIT: 00Z12MAY2017 fx: [120] hr --> Wed 00Z17MAY2017



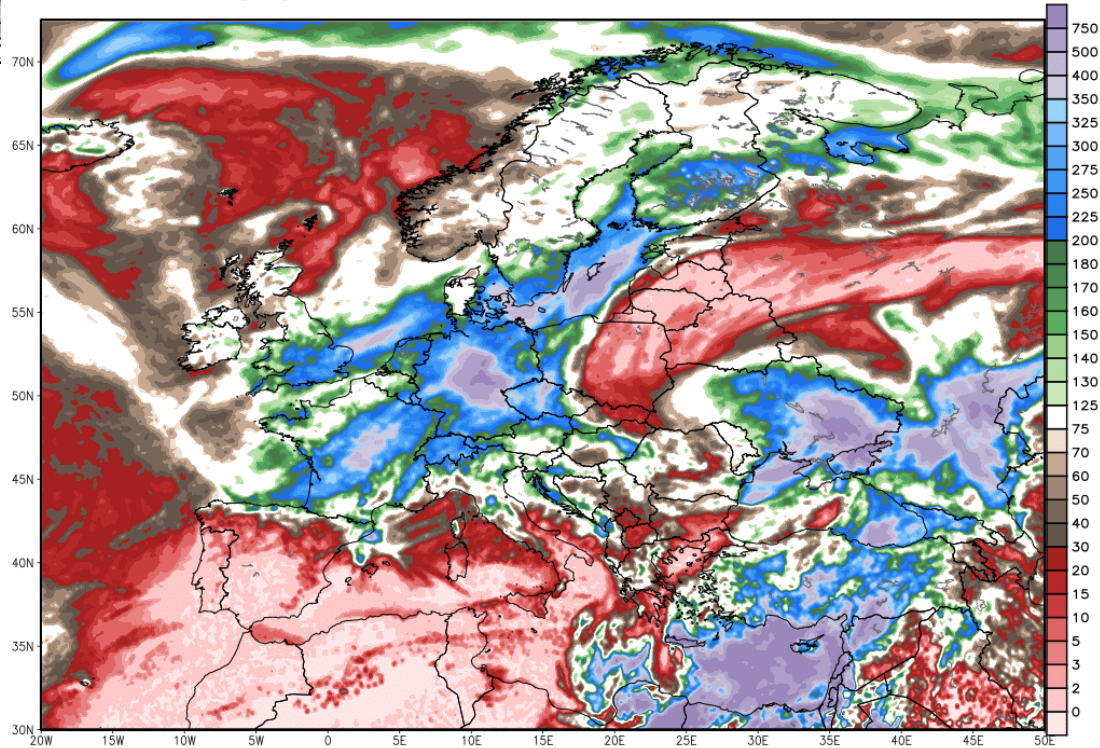


ECMWF 120-hourly Precipitation [inch] INIT: 00Z12MAY2017 fx: [240] hr --> Mon 00Z22MAY2017  
Total Precipitation [inches] between 00Z17MAY2017 -- 00Z22MAY2017



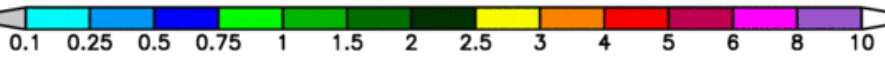
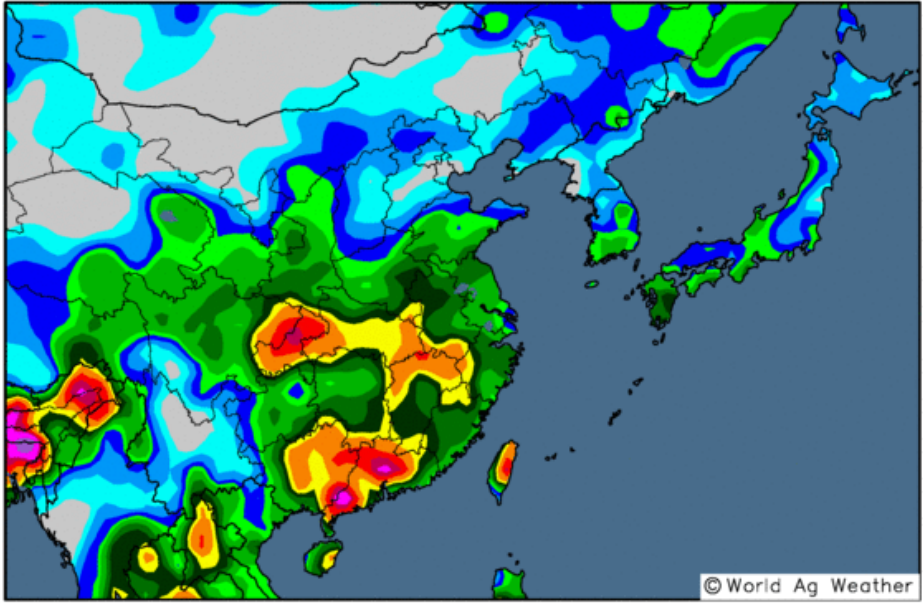
**6-10D = 0.75-3.0" /  
20-75mm over  
central eastern FR  
much of GER &  
eastern UKRAINE &  
SOUTHERN Districts**

ECMWF 120-hr Precip Anomaly [% of normal] between 00Z17MAY2017 -- 00Z22MAY2017  
INIT: 00Z12MAY2017 fx: [240] hr --> Mon 00Z22MAY2017



# 14-day Precipitation Analysis

Observed precipitation (inches) through 12 UTC 10 May 2017

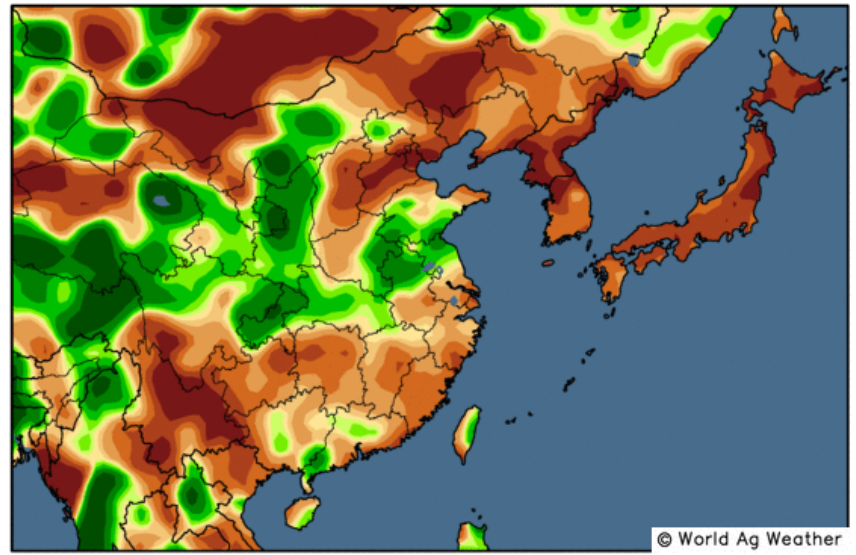


Map updates daily by approximately 20:30 UTC

**southern half NCP  
wet ..southern half of  
China dry**

**northern half of NCP  
& MANCHURIA very  
dry last 14 days**

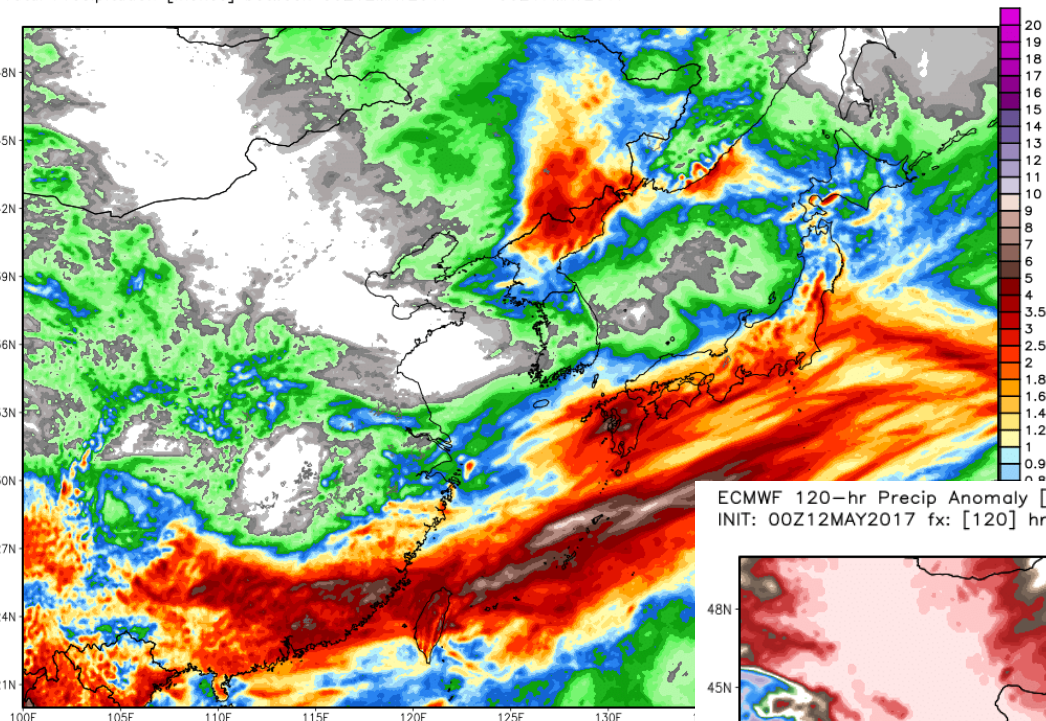
14-day Precipitation Analysis  
Percent of normal through 12 UTC 10 May 2017



Map updates daily by approximately 20:30 UTC

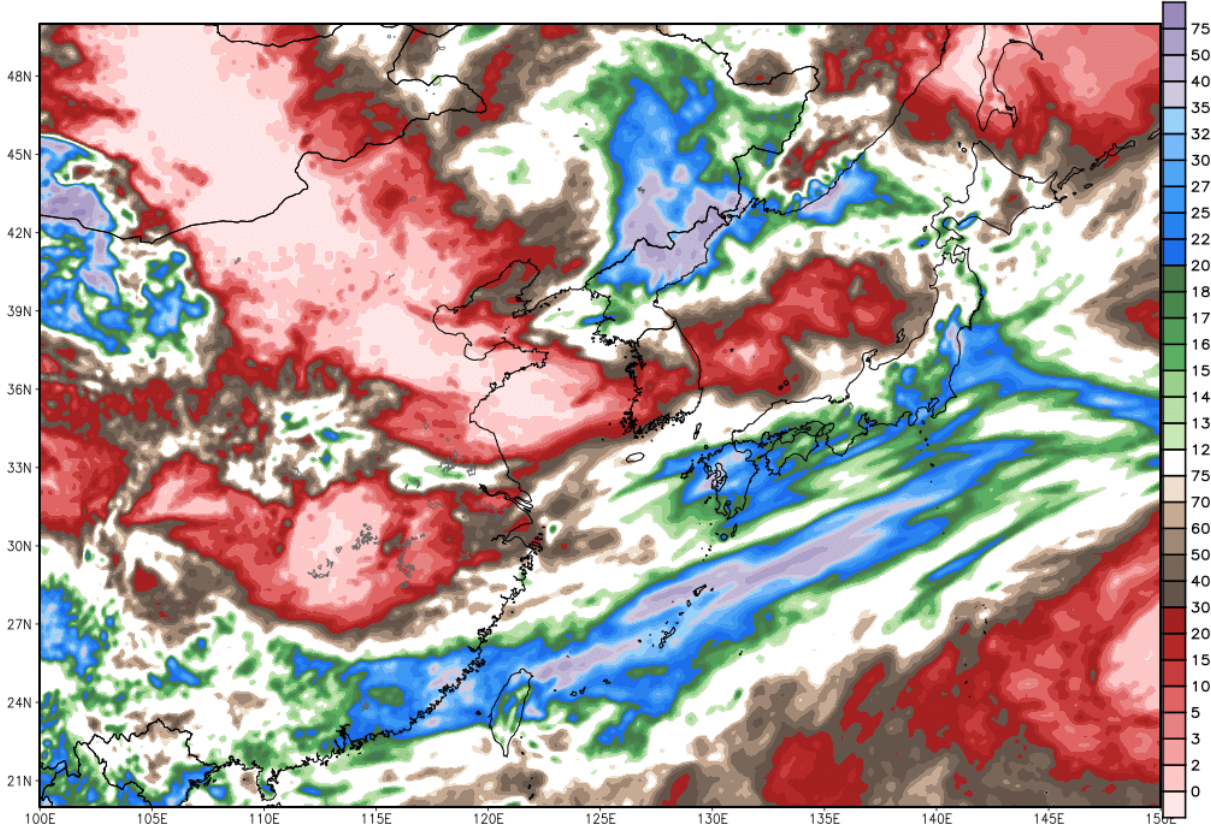


ECMWF 120-hourly Precipitation [inch] INIT: 00Z12MAY2017 fx: [120] hr --> Wed 00Z17MAY2017  
Total Precipitation [inches] between 00Z12MAY2017 -- 00Z17MAY2017



**1-5D- great rains for  
se China BUT 100%  
dry NCP & all  
Manchuria**

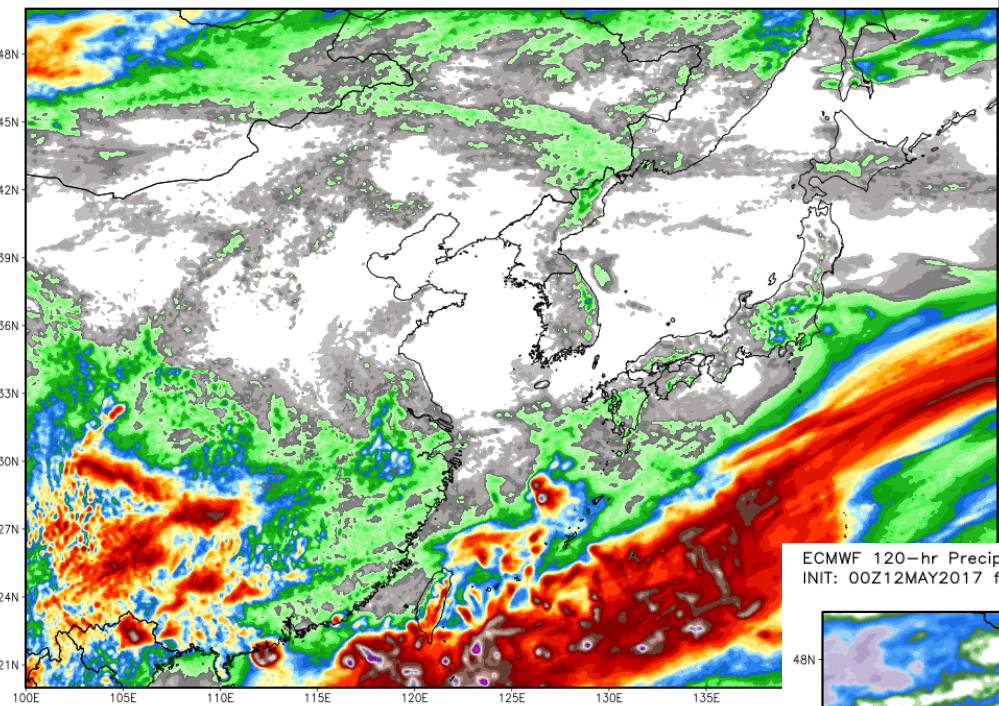
ECMWF 120-hr Precip Anomaly [% of normal] between 00Z12MAY2017 -- 00Z17MAY2017  
INIT: 00Z12MAY2017 fx: [120] hr --> Wed 00Z17MAY2017



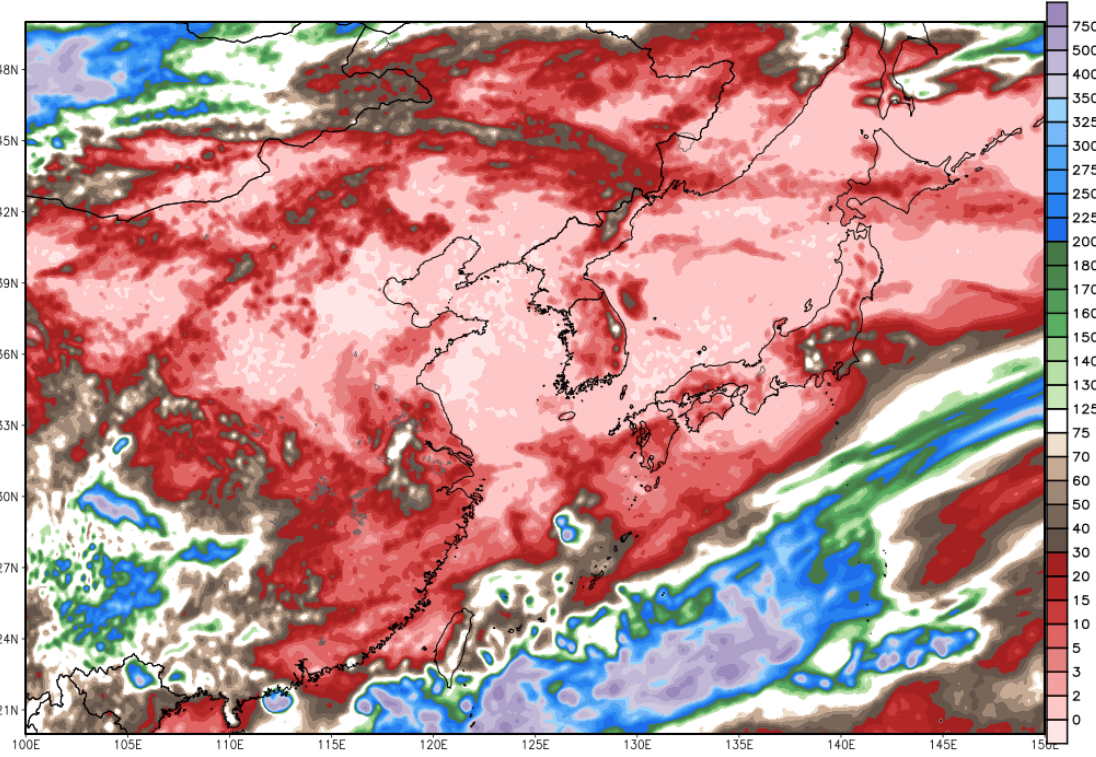


ECMWF 120-hourly Precipitation [inch] INIT: 00Z12MAY2017 fx: [240] hr --> Mon 00Z22MAY2017  
Total Precipitation [inches] between 00Z17MAY2017 -- 00Z22MAY2017

# 6-10D- 100% dry NCP & all Manchuria

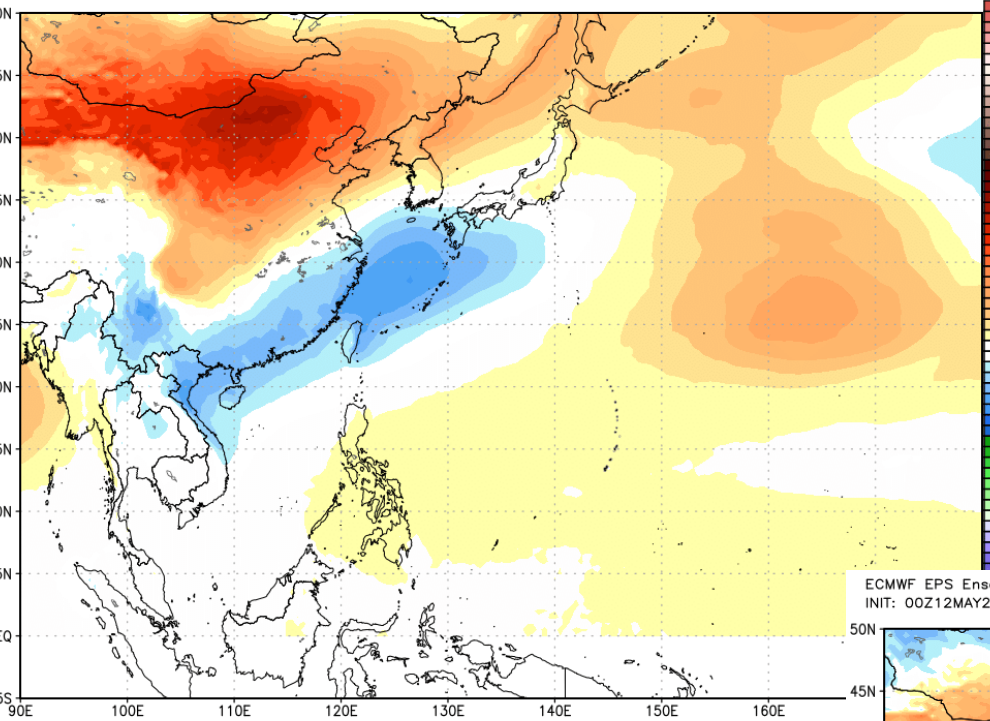


ECMWF 120-hr Precip Anomaly [% of normal] between 00Z17MAY2017 -- 00Z22MAY2017  
INIT: 00Z12MAY2017 fx: [240] hr --> Mon 00Z22MAY2017

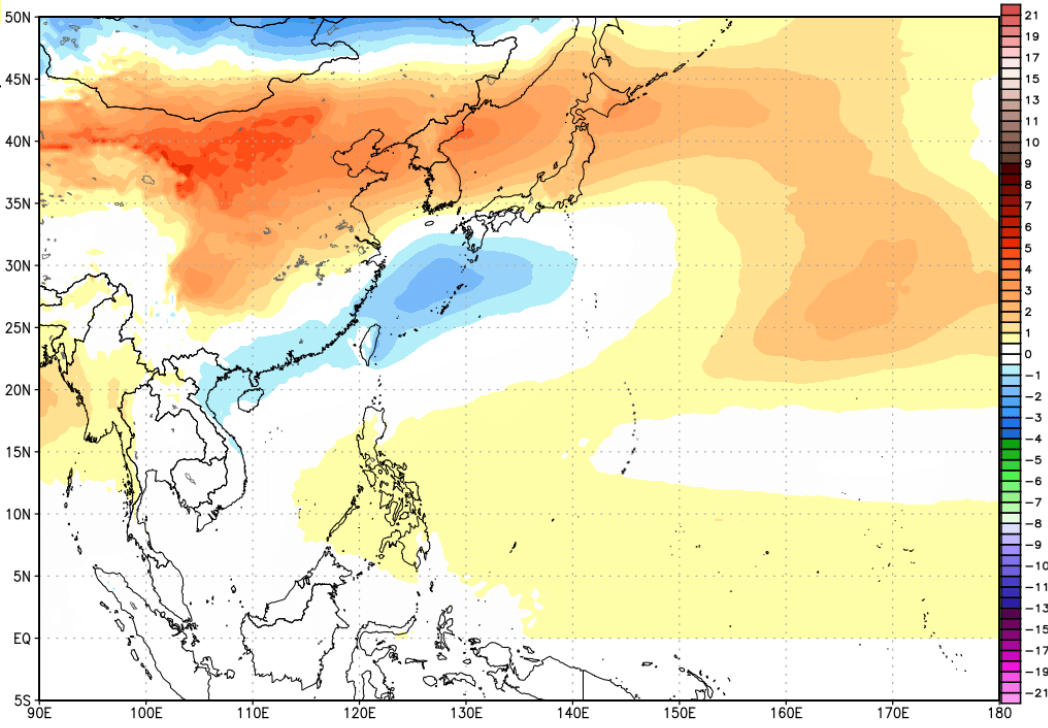


ECMWF EPS Ensemble Mean 850 hPa Temperature Anomaly [°C] fx: [216] hr --> Sun 00Z21MAY2017  
INIT: 00Z12MAY2017 5-day Mean between 00Z16MAY2017 & 00Z21MAY2017 Day 4 - Day 9 Min|Max -2.7° | 7.0°C

# 6-10- TEMPS turn hot over the NCP & all Manchuria



ECMWF EPS Ensemble Mean 850 hPa Temperature Anomaly [°C] fx: [252] hr --> Mon 12Z22MAY2017  
INIT: 00Z12MAY2017 5-day Mean between 12Z17MAY2017 & 12Z22MAY2017 Day 5.5 - Day 10.5 Min|Max -2.8° | 5.9°C



**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**

