

US and OVERSEAS GRAIN WEATHER ISSUES

12 MAY 2017



LOCATED in Richmond VA

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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.

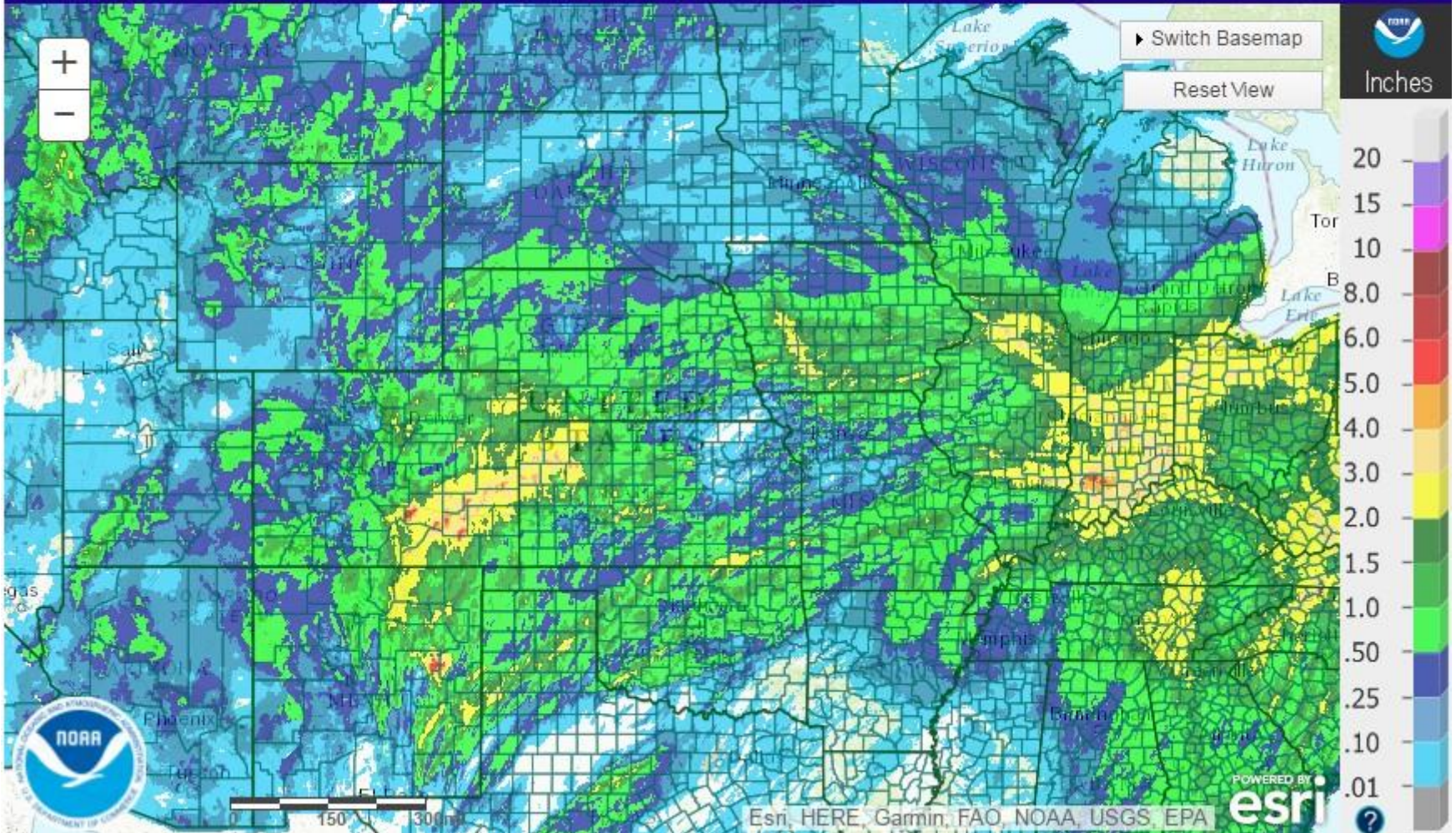
RAINFALL LAST 7 DAYS

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

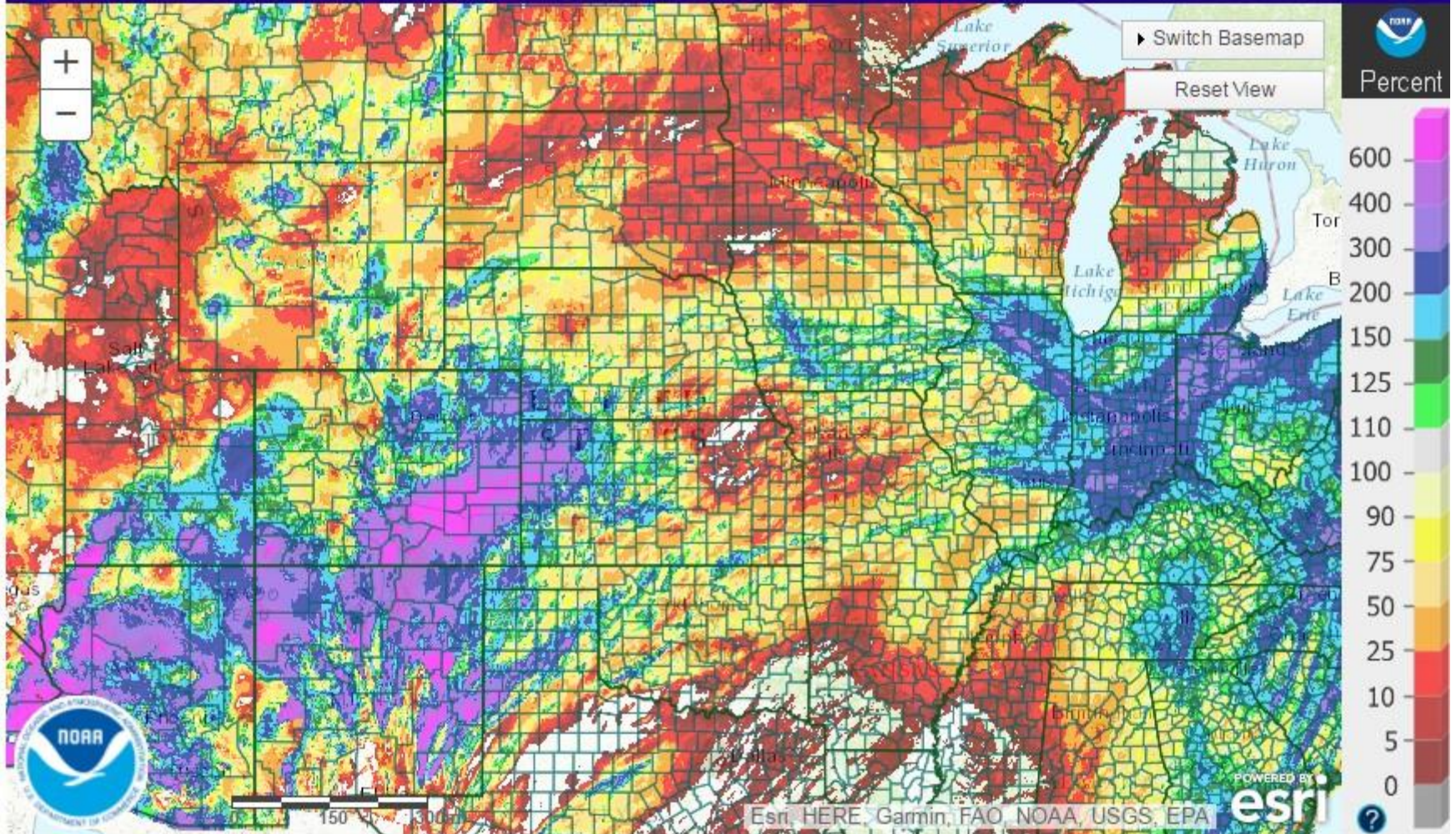
Displaying Last 7-Day Percent of Normal Precipitation
Valid on: May 11, 2017 12:00 UTC

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

[What is UTC time?](#)

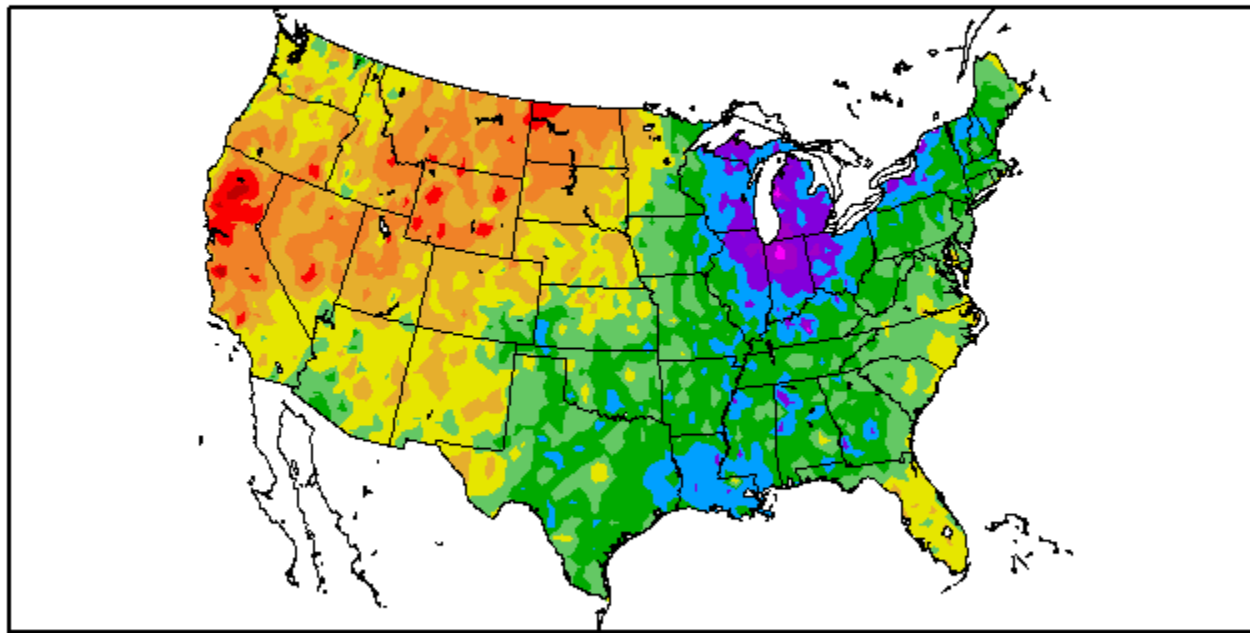
[Map Help](#)

Find address or location



TEMP ANOMALIES LAST 7 DAYS

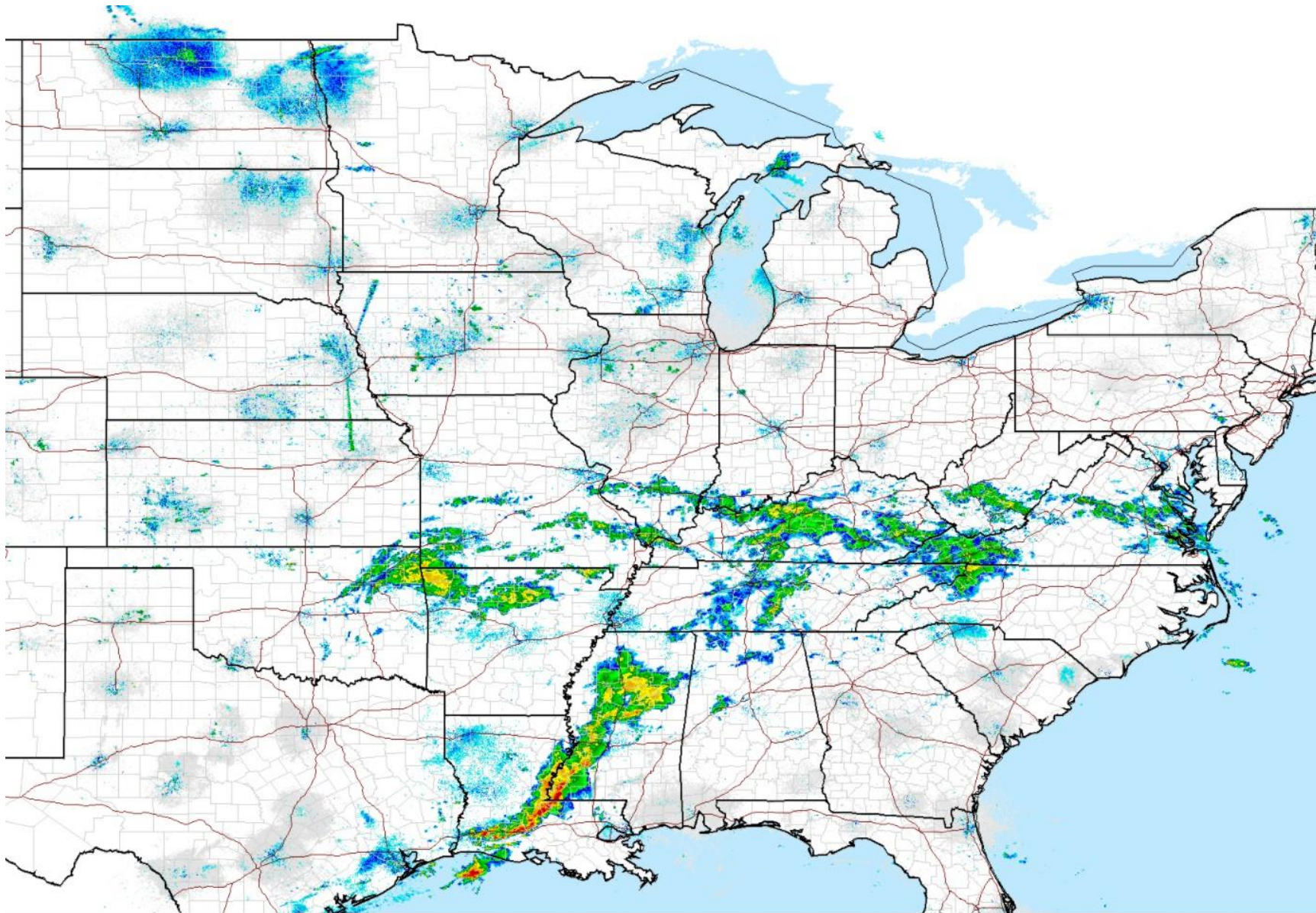
Departure from Normal Temperature (F)
5/1/2017 - 5/10/2017



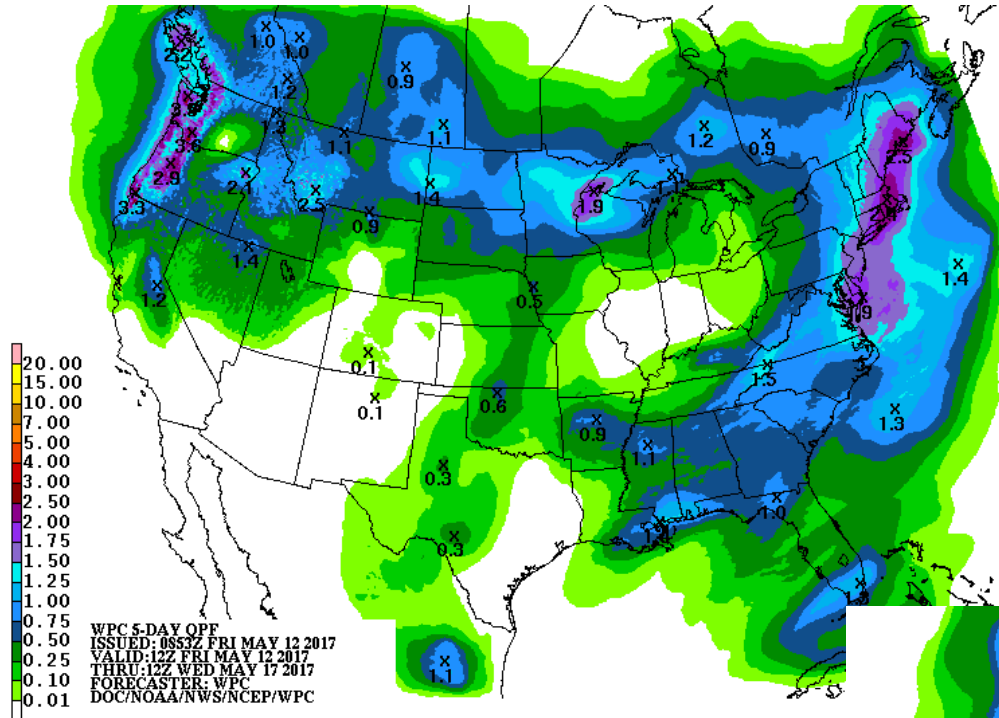
Generated 5/11/2017 at HPRCC using provisional data.

Regional Climate Centers

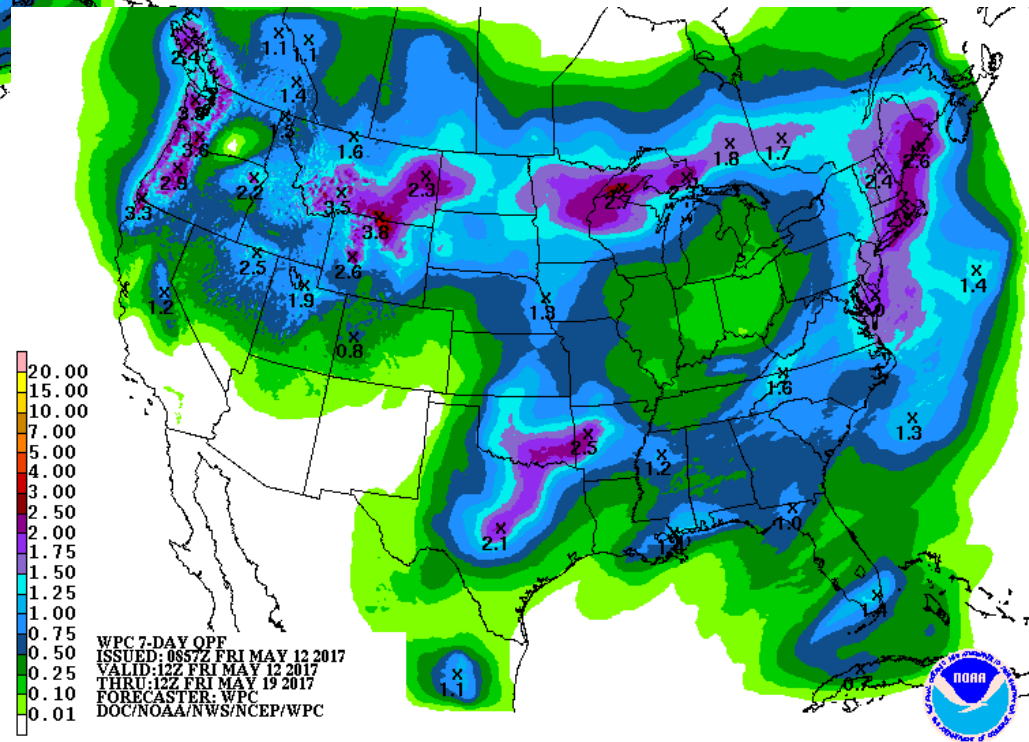
FRI AM RADAR



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

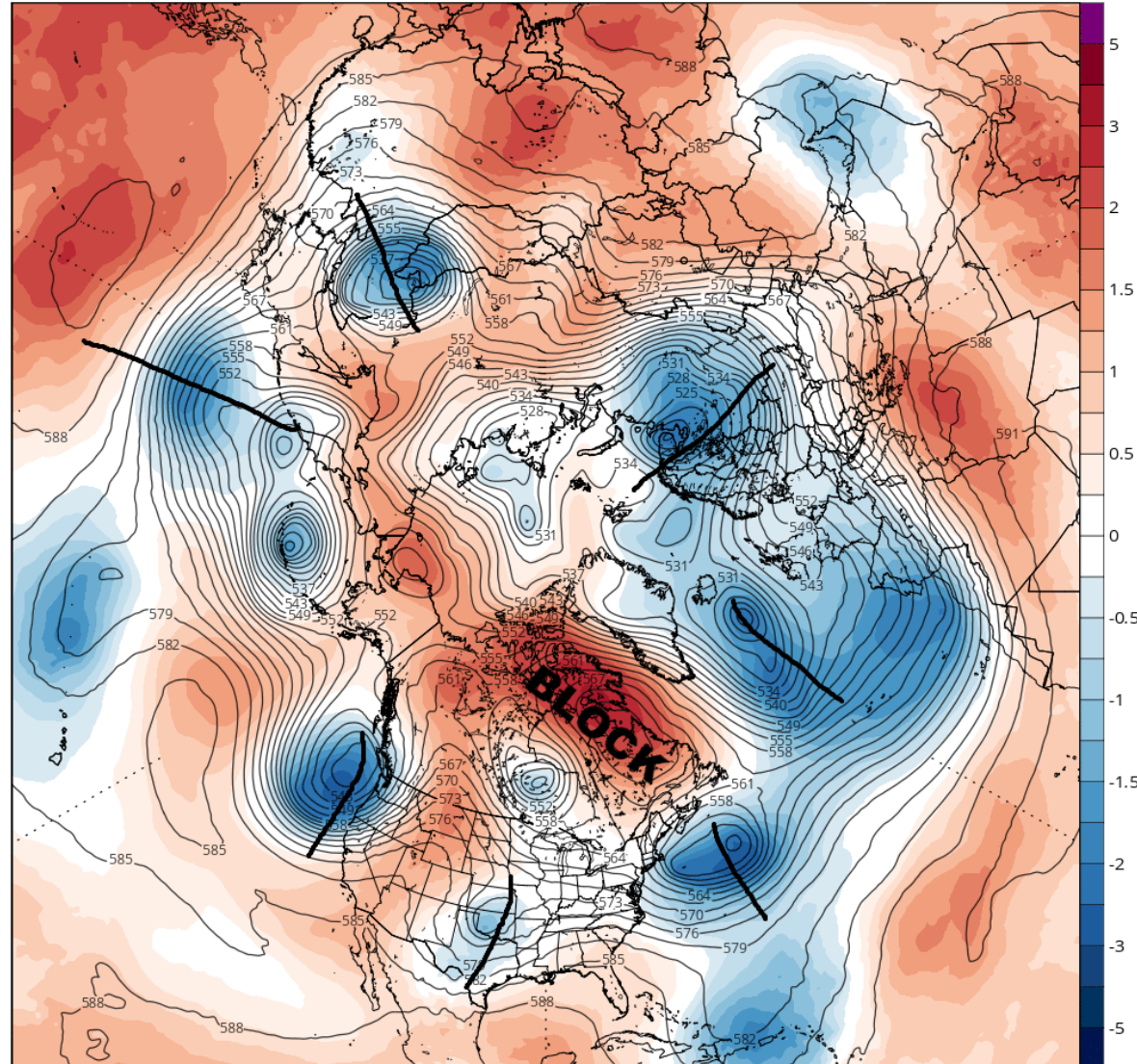
**NOTE THE BLOCK
over ne Canada.
This is the feature
that has brought
about all the cold
temps in 1st week of
MAY.**

**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

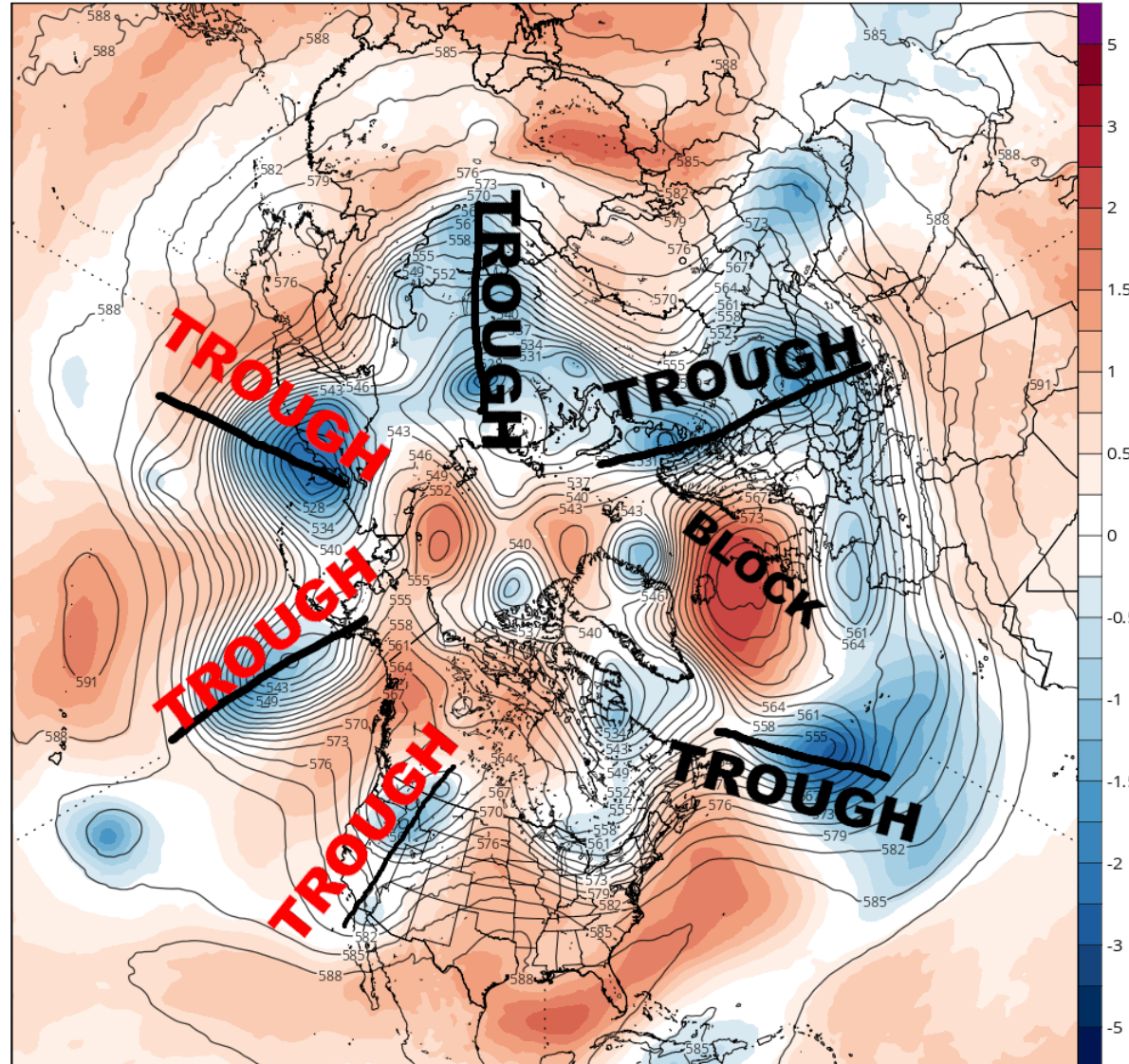
**NOTE THE BLOCK
has moved east to
the UK – which will
impact EUROPE
weather aftr MAY 20**

**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

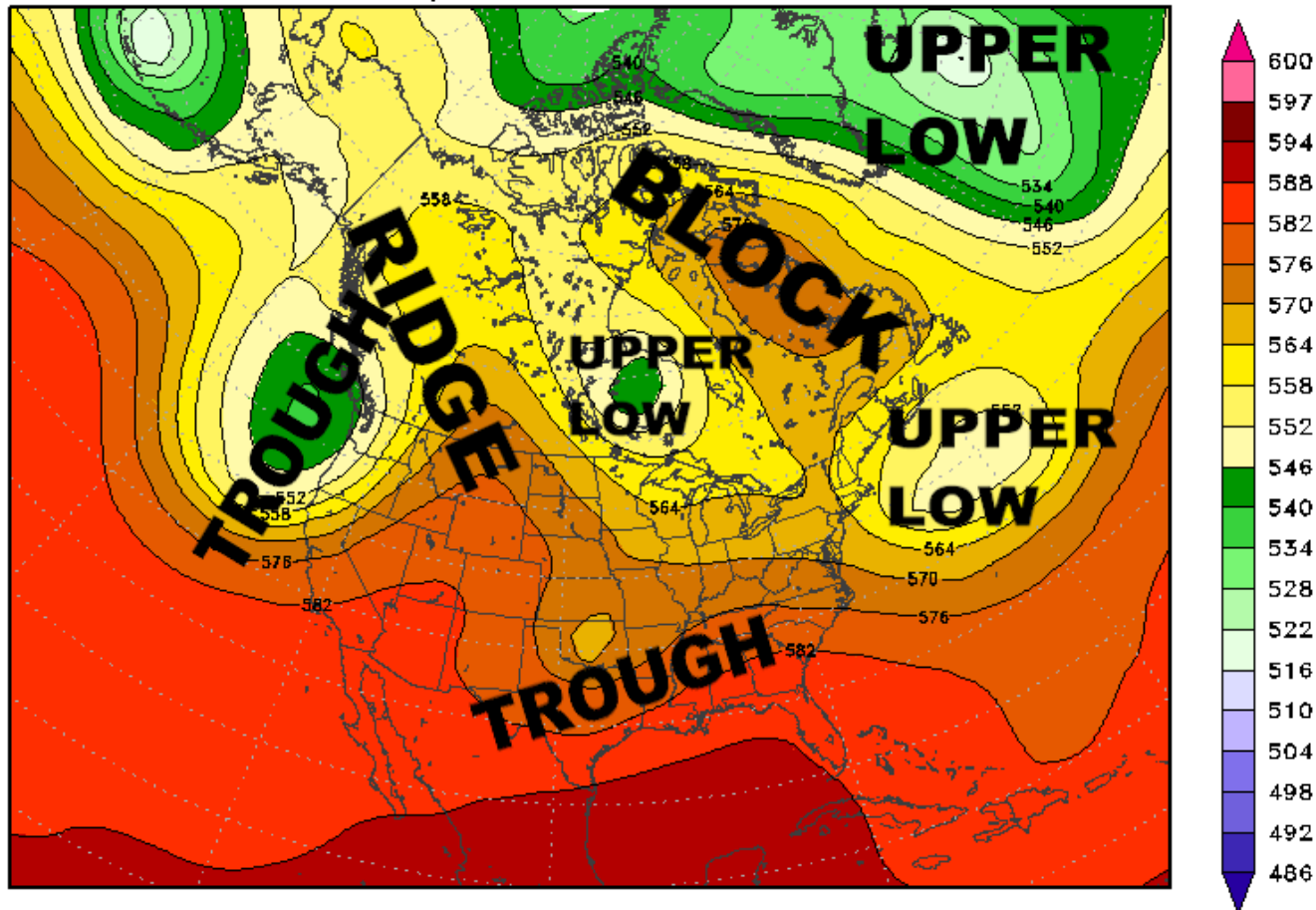
TROPICALTIDBITS.COM

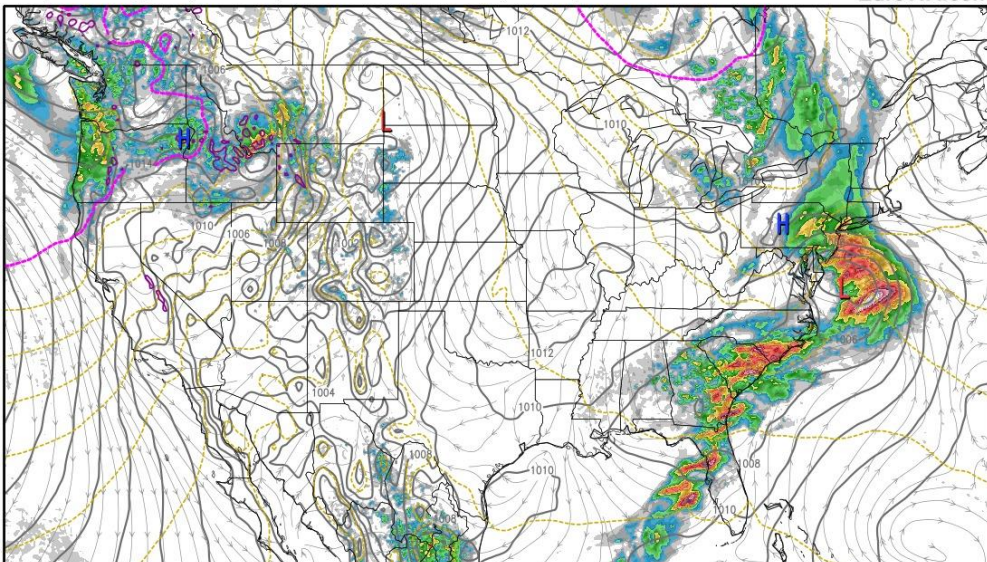


**weak trough over OK stays too far south
= Midwest most of Plains DRY next 5 days.
But deep West coast trough comes East**

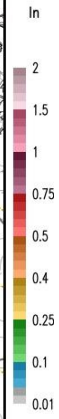
500 mb Height
Valid: 03z Fri 12 May 2017

ECMWF
Hour: 3





SAT EVENING



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

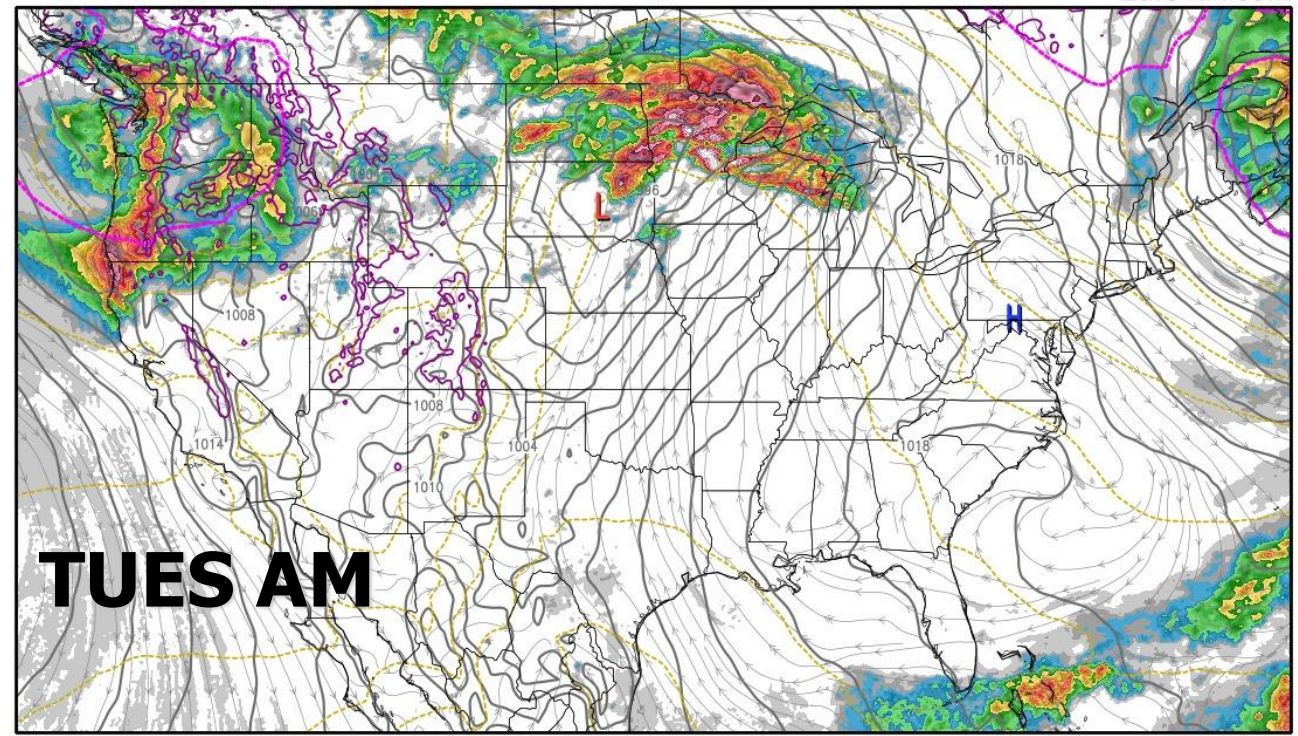
This service is based on data and products of the European

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.

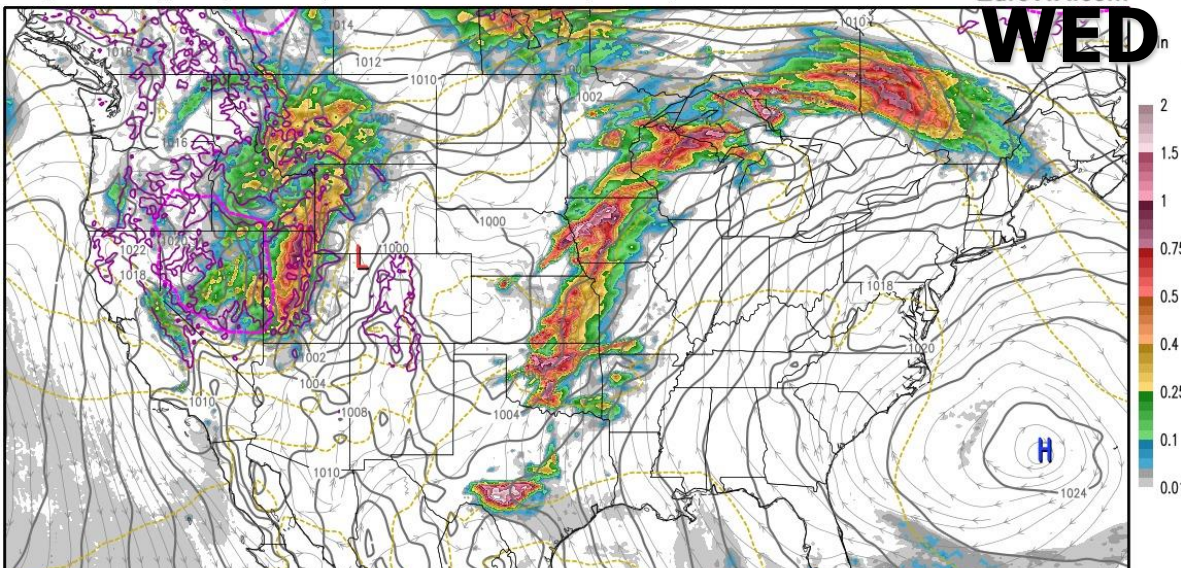
C 2017 ECMWF

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

Valid Wednesday 12Z 05/17

EuroWX.com

WED AM

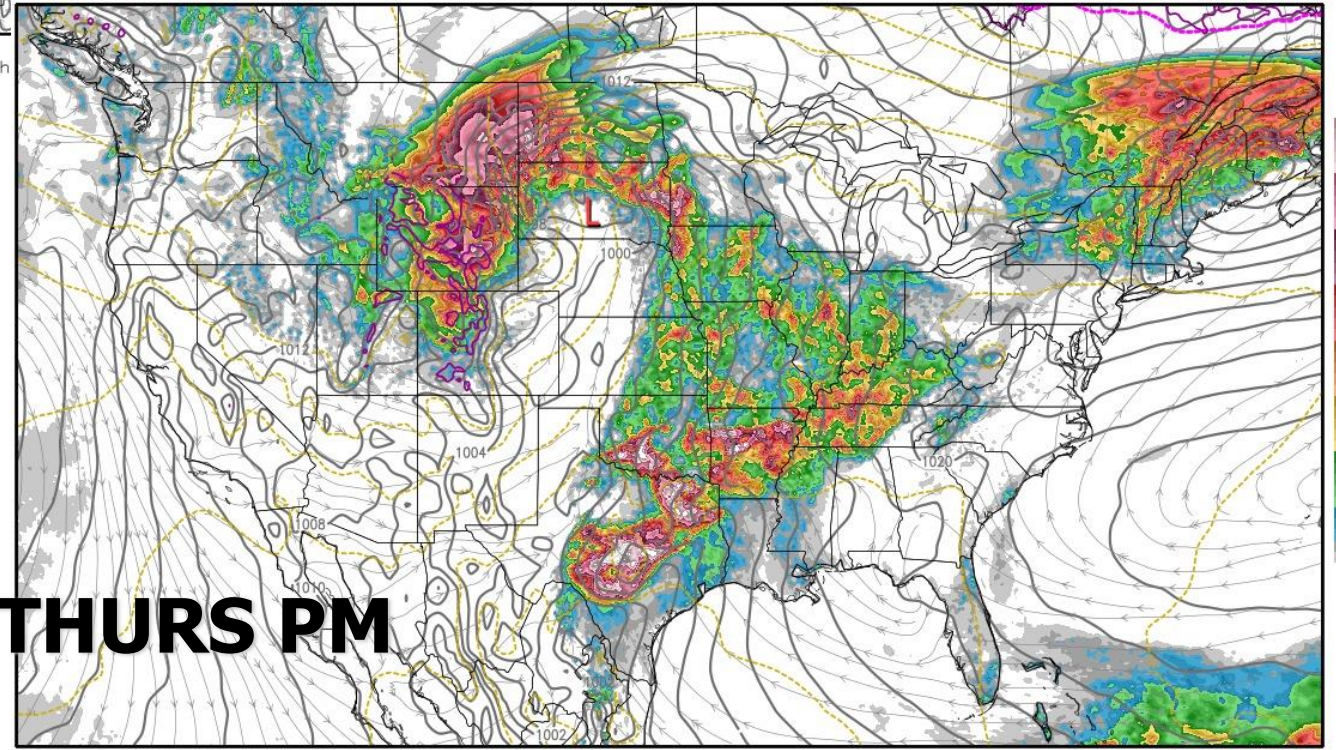


MSLP, 12hr Precip, Wind, Thickness, 32f

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

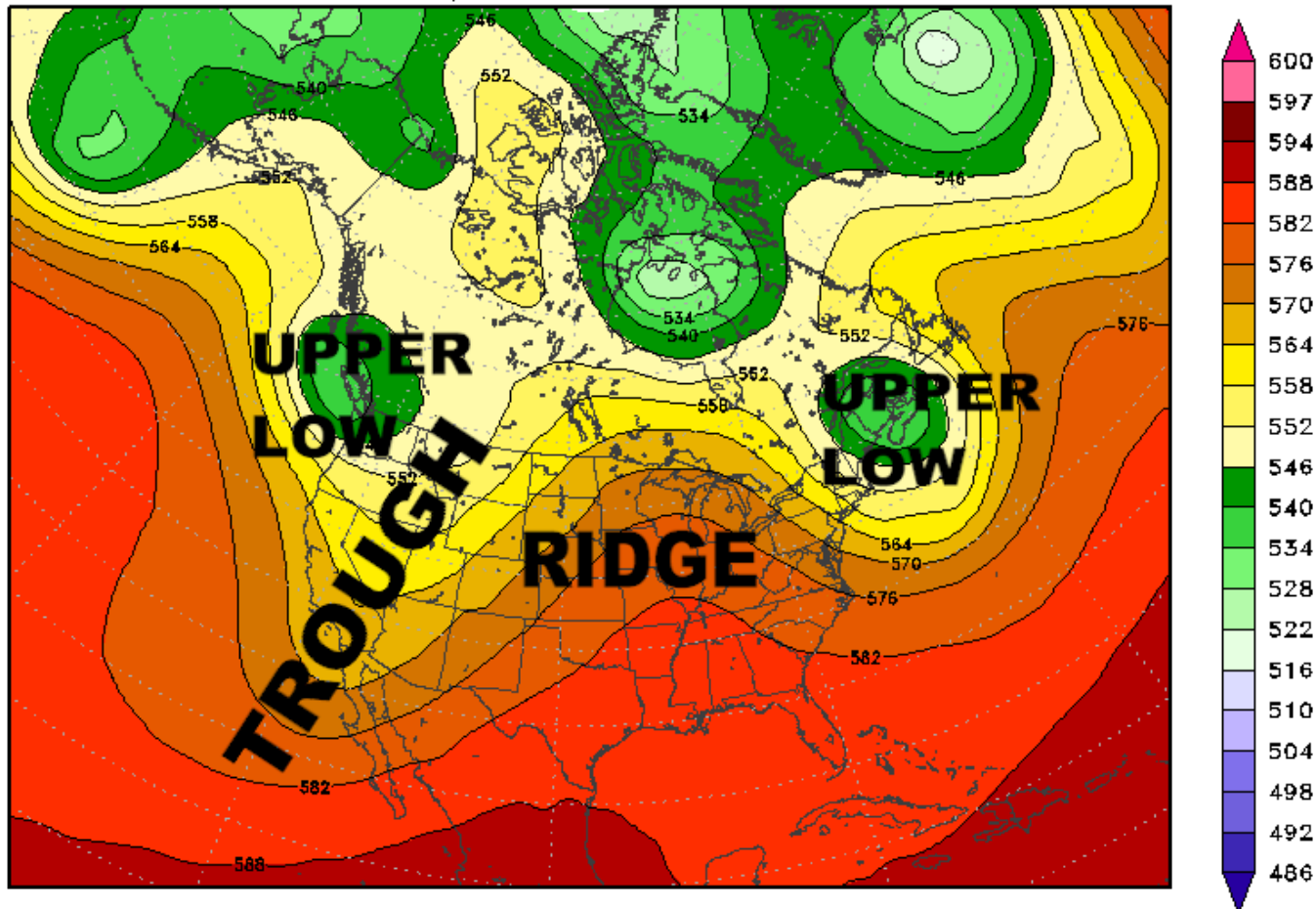
This service is based on data and products of the European Center for Medium-range Weather Forecasts.

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

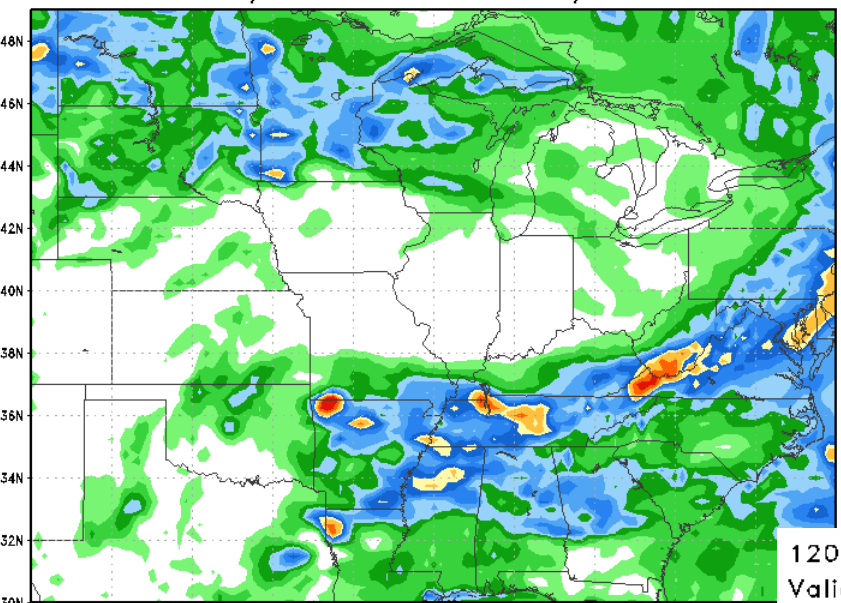
ECMWF
Hour: 96



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**



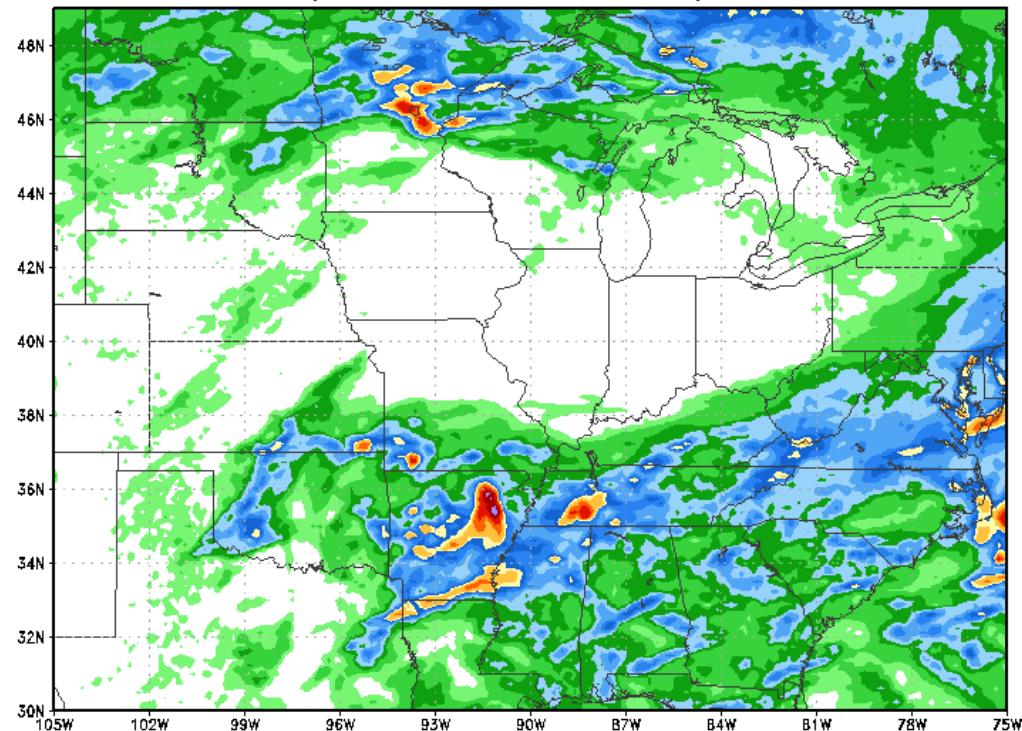
120 Hour Total Precipitation (in)

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

ECMWF-MAXRES

Hour: 0 - 120

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



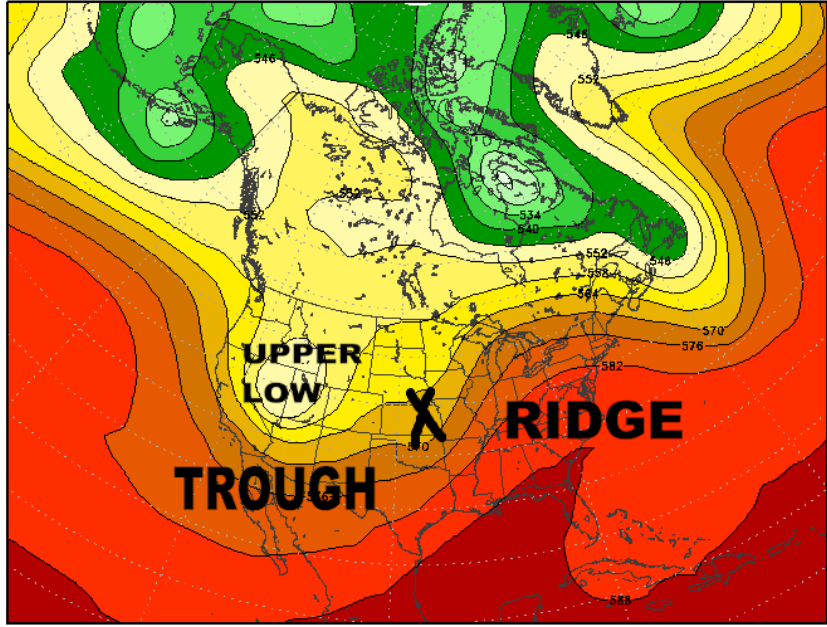
Max: 5.6 in
Min: 0.0 in

StormVistaWxModels.com

Init: 00z Fri 12 May 2017
2017-05-12-06:20

500 mb Height
Valid: 12z Wed 17 May 2017

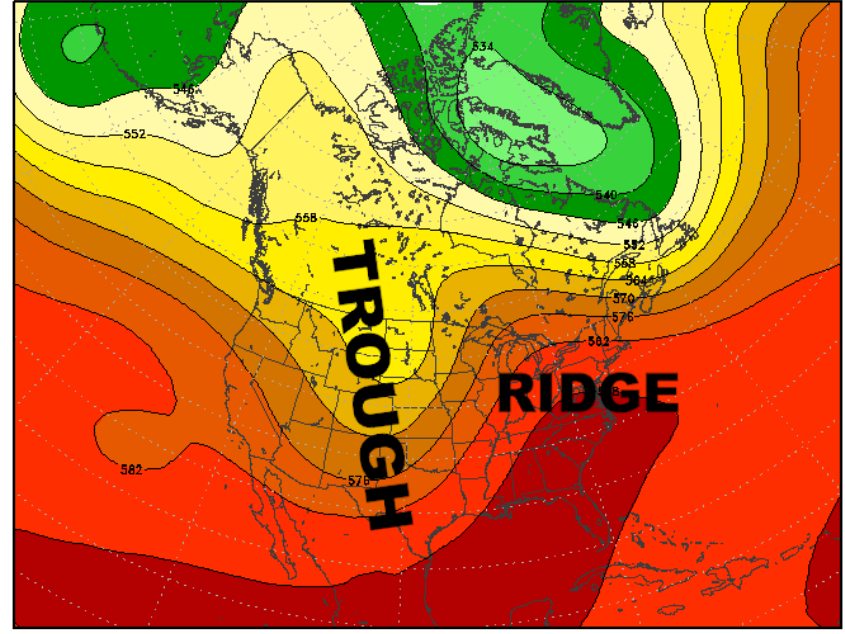
ECMWF
Hour: 132



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-EPS
Hour: 192



GRADS: COLA/IGES

StormVistaWxModels.com

Init: 00z Fri 12 2017-05

GRADS: COLA/IGES

StormVistaWxModels.com

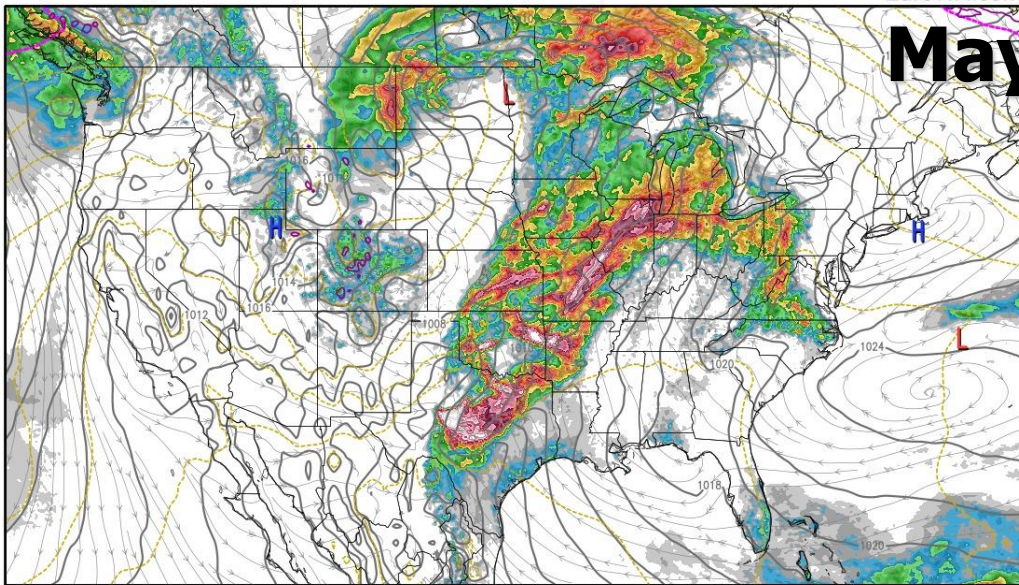
Init: 00z Fri 12 May 2017 2017-05-12-03:32

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

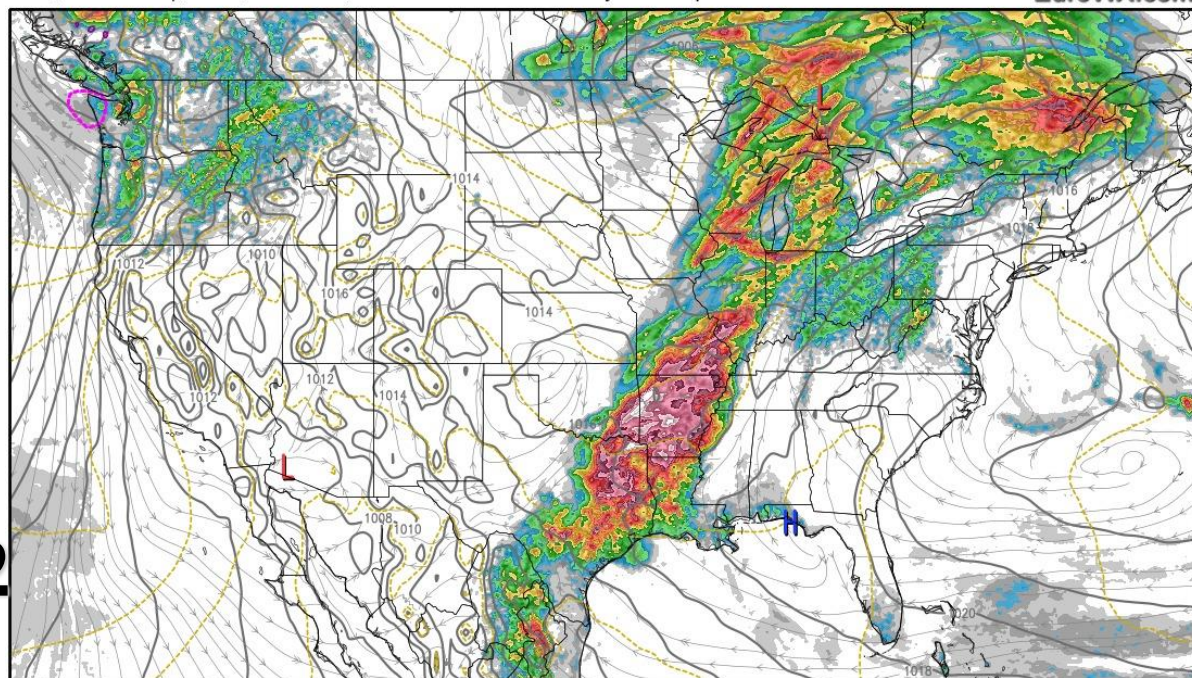
This service is based on data and products of the European Center for Medium-range Weather Forecasts.

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

Valid Sunday 00Z 05/21

EuroWX.com

May 21-22

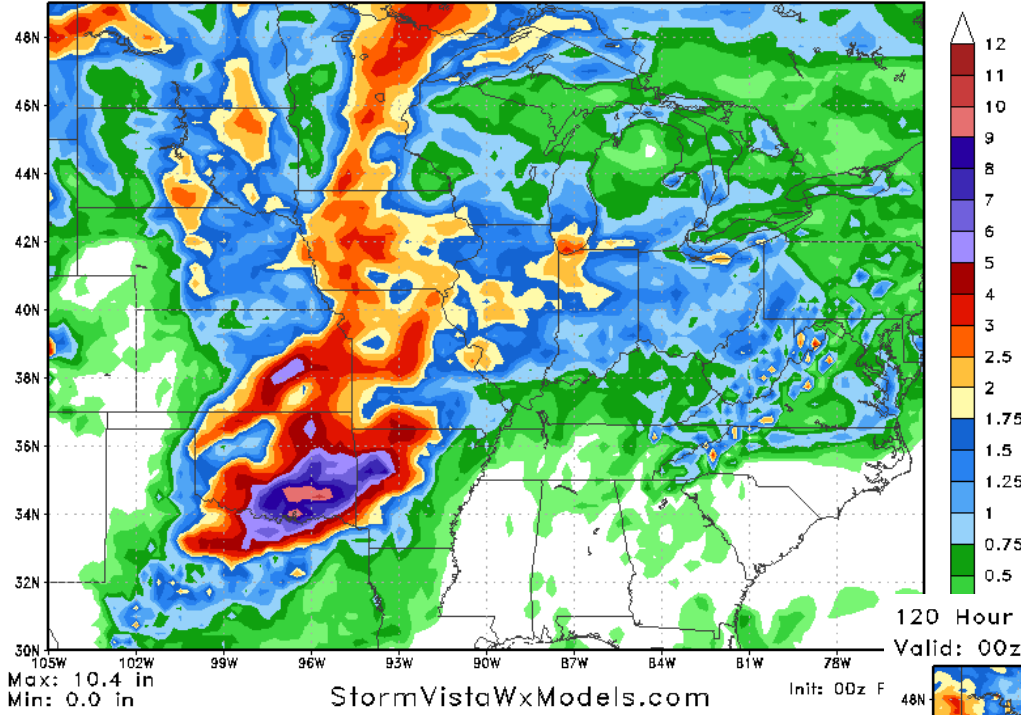


ECMWF HRES MODEL RUN 00Z 05/12 216hr FORECAST

C 2017 ECMWF

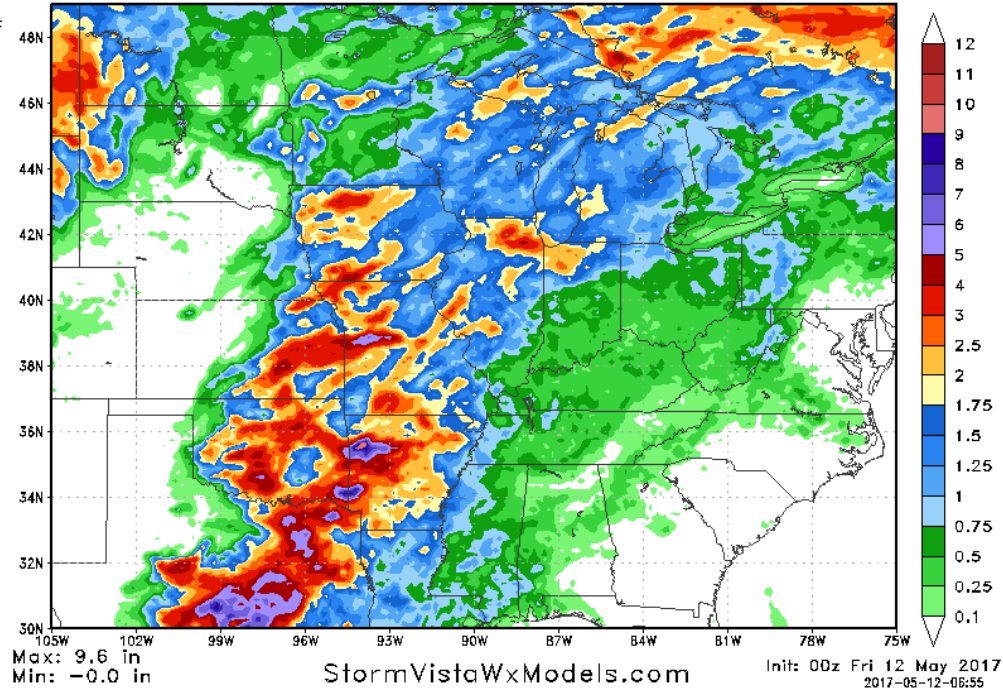
This service is based on data and products of the European Center for Medium-range Weather Forecasts.

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

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

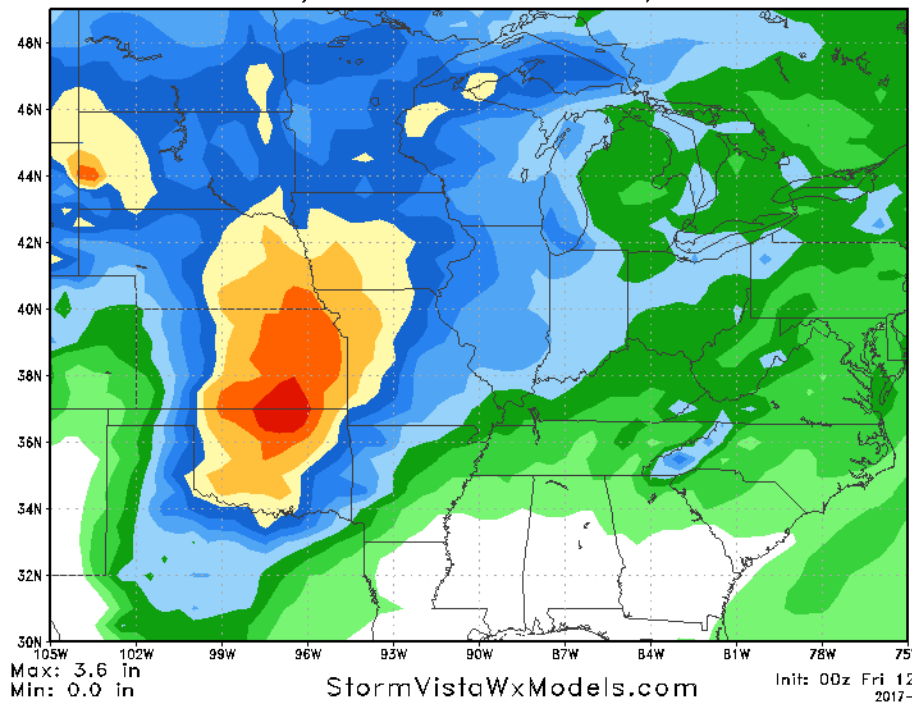


GFS has blobs up to 10"/300mm in eastern OK

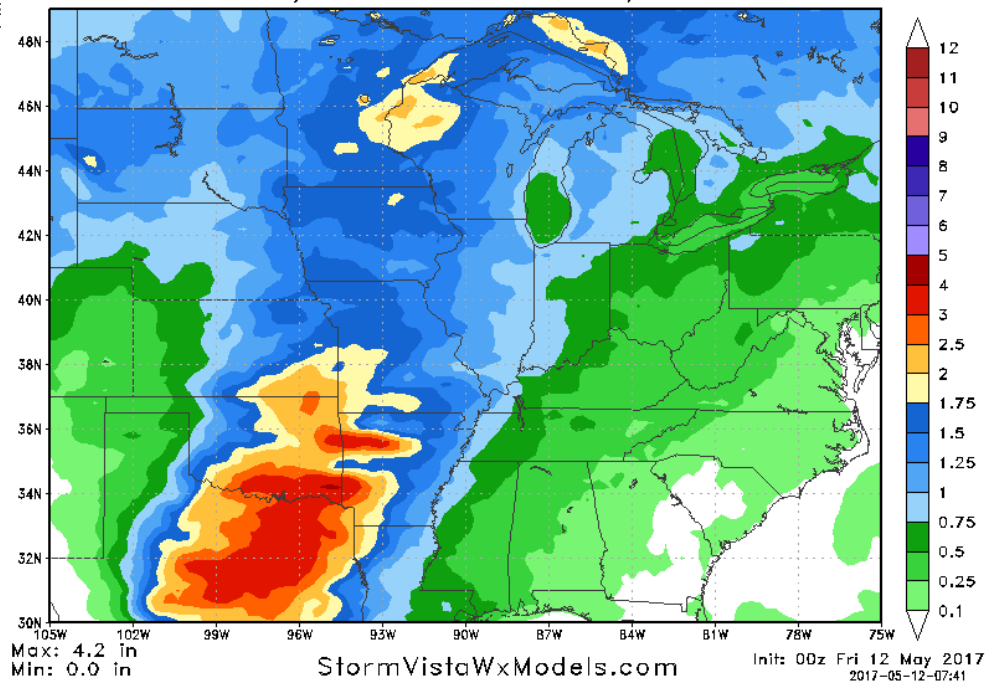
Max: 9.6 in Min: -0.0 in StormVistaWxModels.com Init: 00z Fri 12 May 2017 2017-05-12-06:55

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



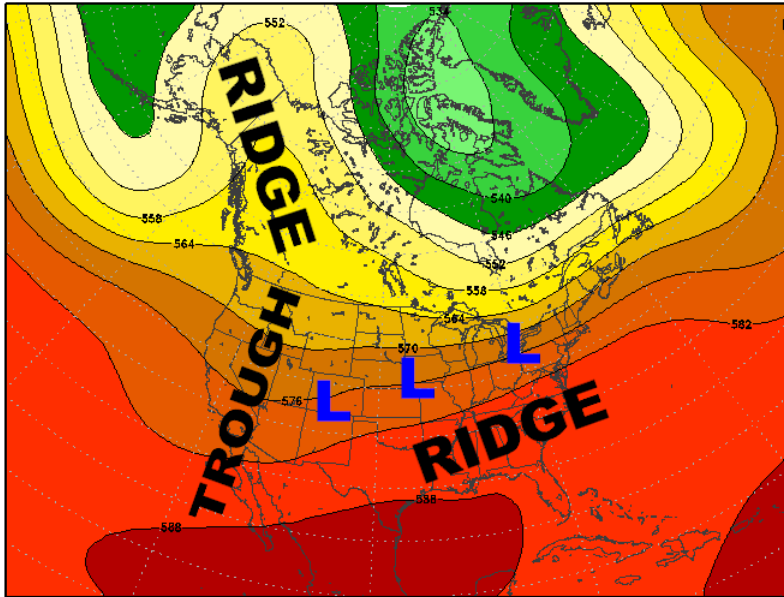
Models keep increasing rain amounts over Lower Plains into ARK sw MO

Max: 4.2 in
Min: 0.0 in

StormVistaWxModels.com
Init: 00z Fri 12 May 2017
2017-05-12-07:41

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**

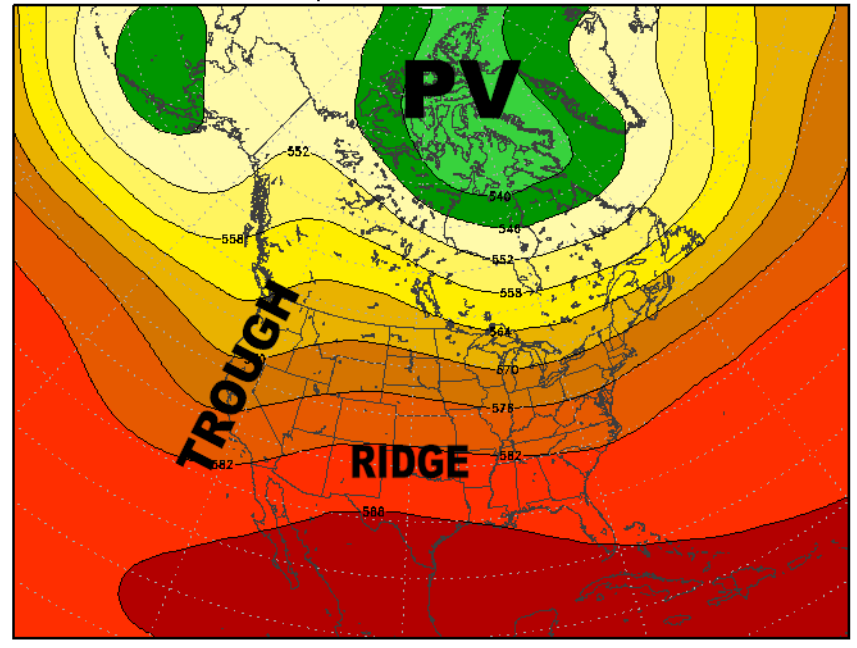
GRADS: COLA/IGES

StormVistaWxModels.com

Init: 00z Fri 12
2017-05

500 mb Height
Valid: 12z Fri 26 May 2017

ECMWF-EPS
Hour: 348

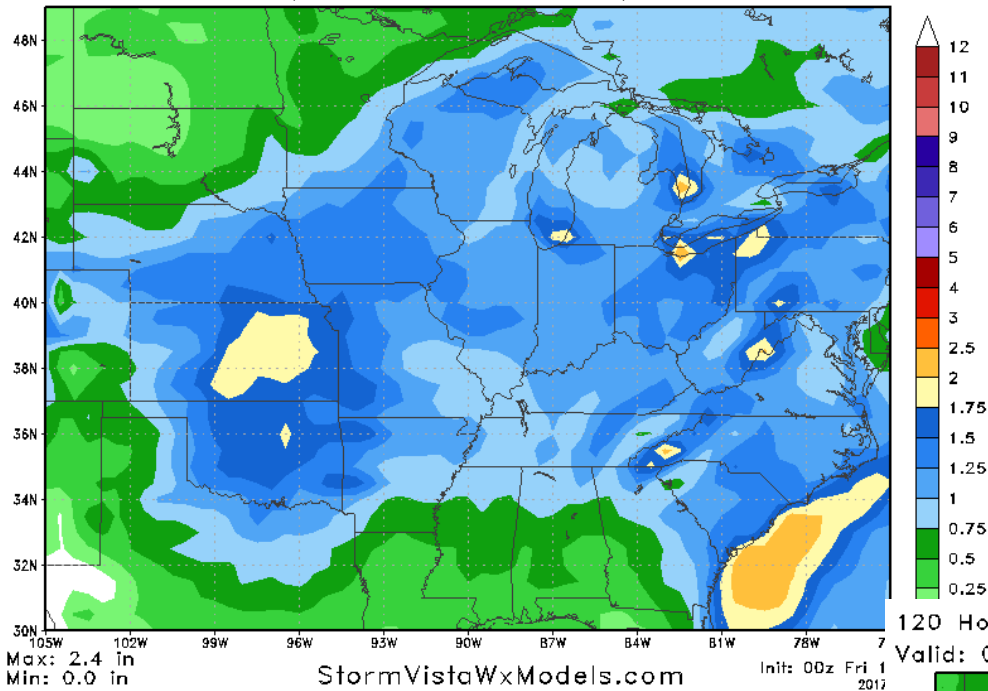


GRADS: COLA/IGES

StormVistaWxModels.com

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

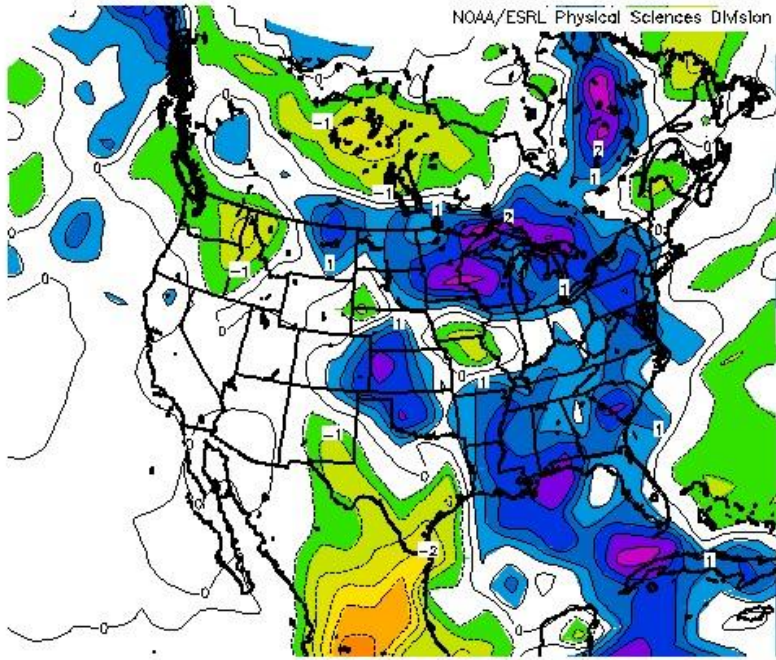
120 Hour Total Precipitation (in) GFS-ENS-MAXRES
Valid: 00z Mon 22 May 2017 - 00z Sat 27 May 2017 Hour: 240 - 360



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





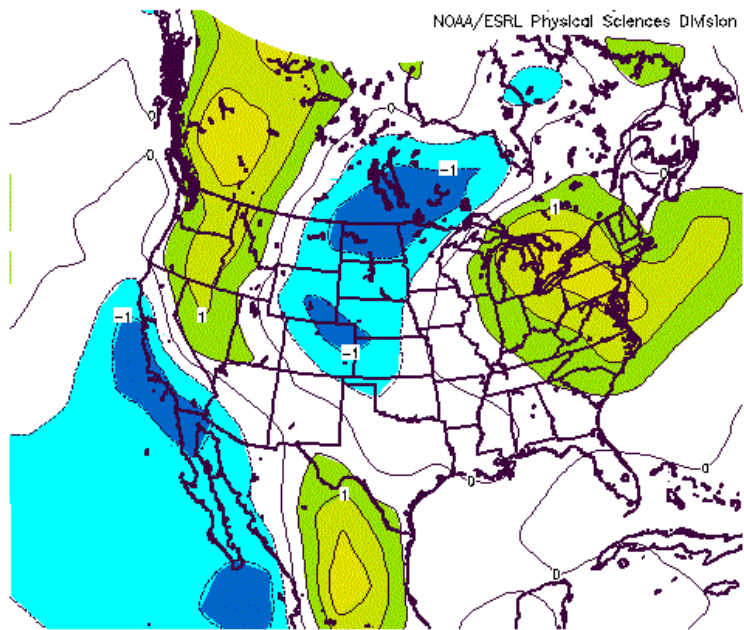
NOAA/ESRL Physical Sciences Division

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

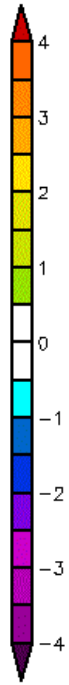
ANALOG METHOD

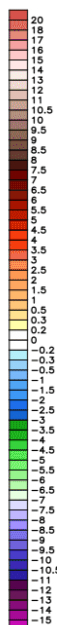
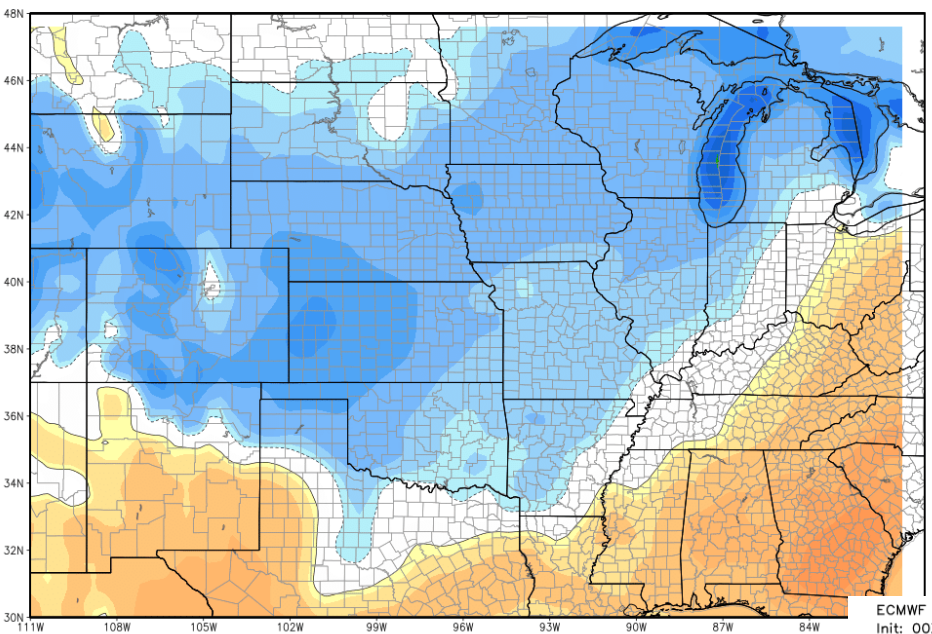
- assumes Models in 11-15D are accurate then finds top 10 analog weather patterns then continues the pattern



NOAA/ESRL Physical Sciences Division

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





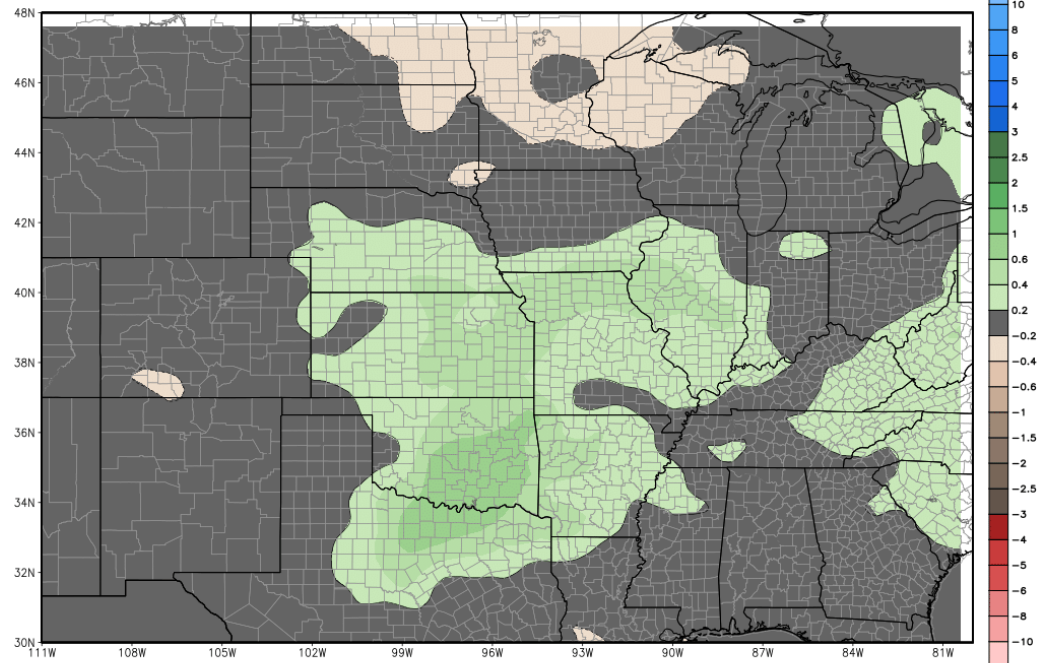
EUROPEAN WEEKLY MODELS OVER USA MEMORIAL DAY WEEKEND

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

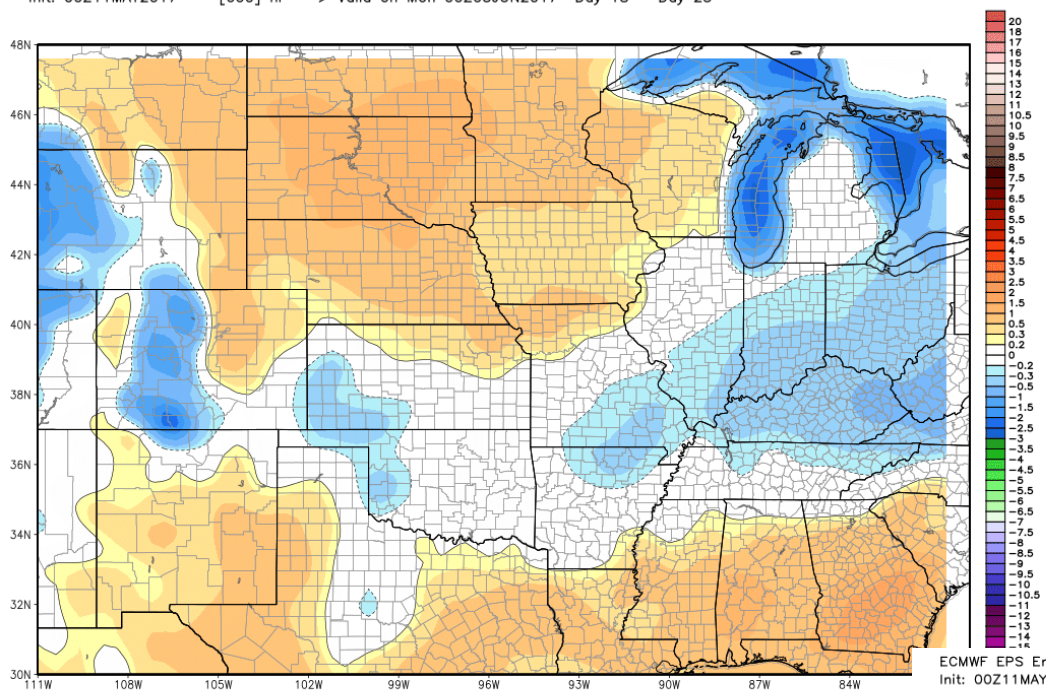
Min|Max Anom: -0.6 | 1.0 inch

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

COOL & WET



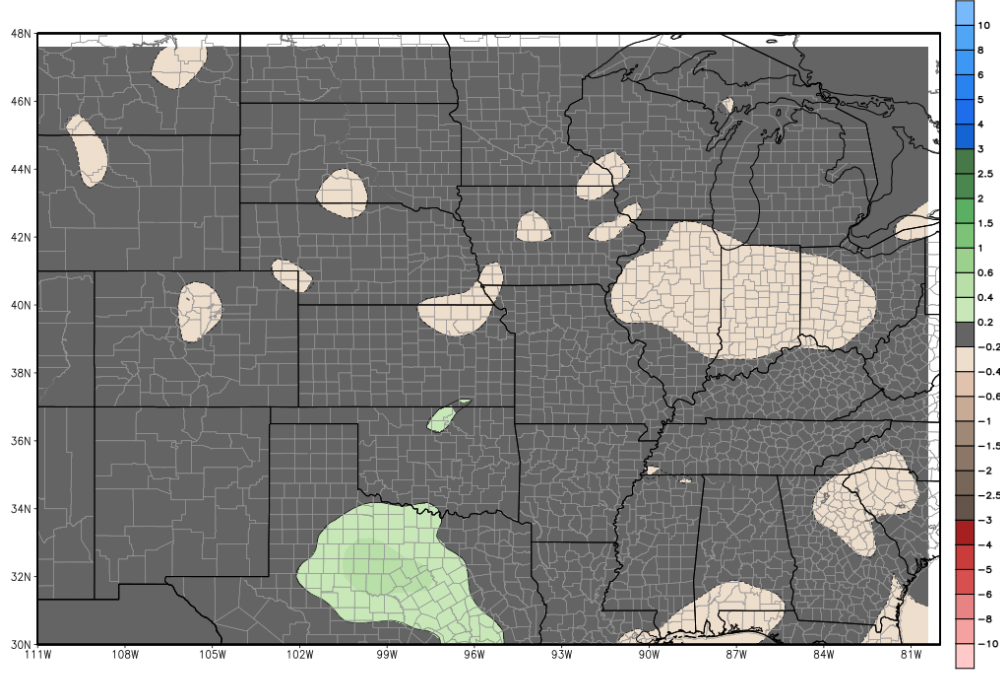
Accumulation between 00Z22MAY2017-00Z29MAY2017 | ECMWF EPS 1997-2016 Hindcast Climatology



**1ST WEEK OF
JUNE ...
WARMER
DRIER ???**

ECMWF EPS Ensemble Mean 7-day Avg Precipitation Anomaly [inch] Min|Max Anom: -0.4 | 0.6 inch
Init: 00Z11MAY2017 -- [600] hr --> Valid on Mon 00Z05JUN2017 Day 18 - Day 25

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



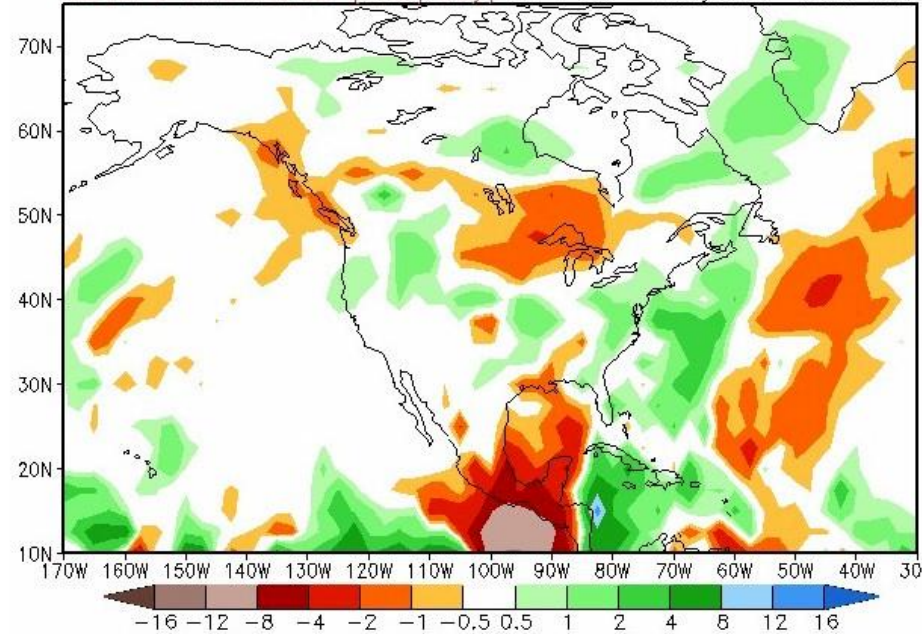
Accumulation between 00Z29MAY2017-00Z05JUN2017 | ECMWF EPS 1997-2016 Hindcast Climatology

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

CFSv2 Weeks 3 & 4 Precipitation

16 Member Ensemble Mean Forecast from 11May2017

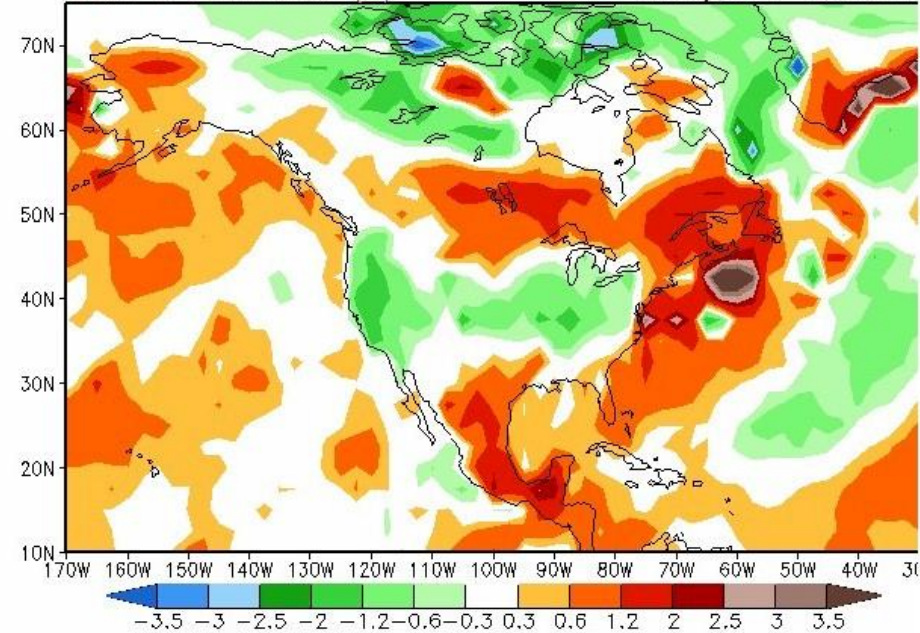
Week 3 Anomalies (mm/day) 26May2017-1Jun2017



CFSv2 Extended Range Temperature

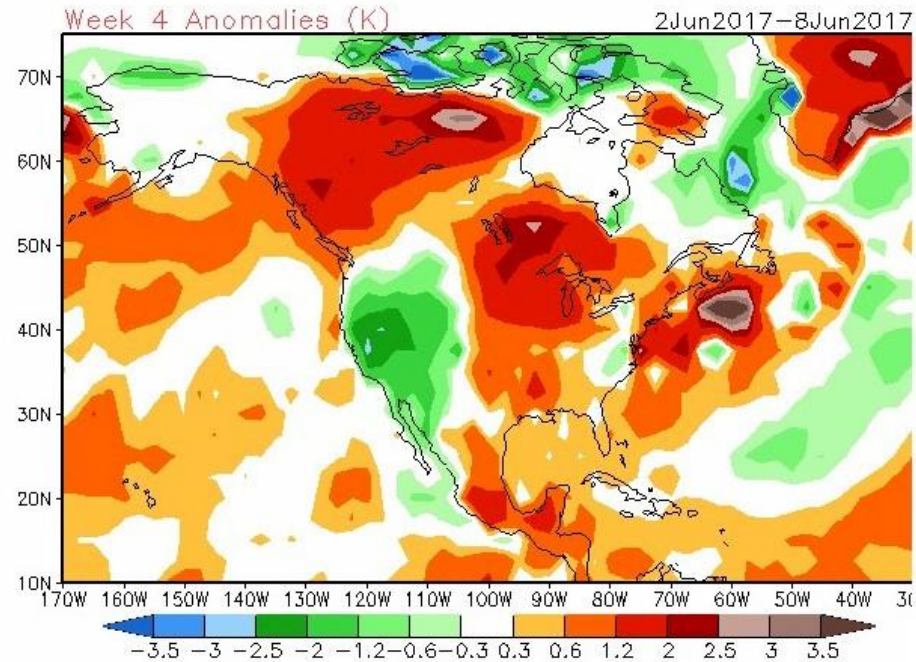
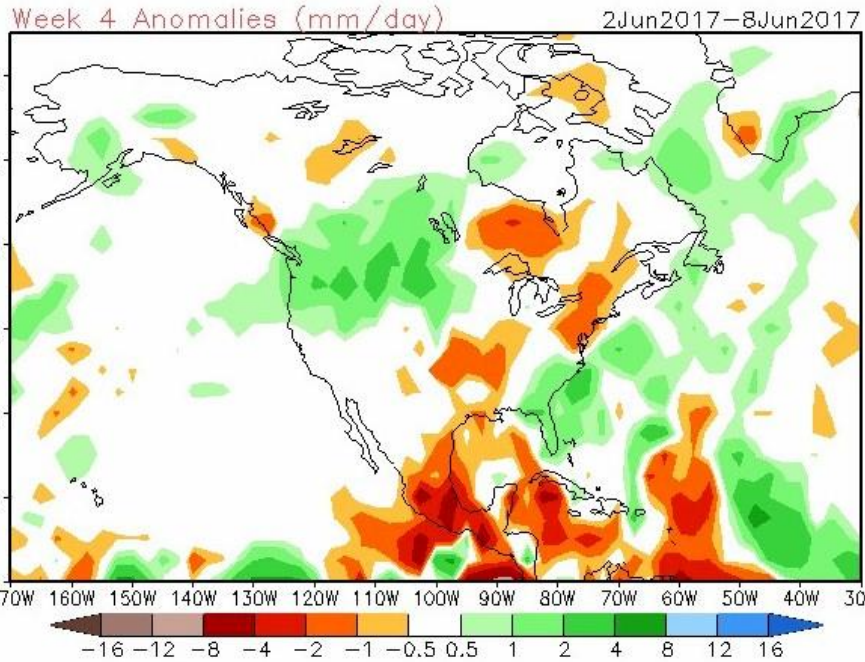
16 Member Ensemble Mean Forecast from 11May2017

Week 3 Anomalies (K) 26May2017-1Jun2017



looks fairly wet central Plains & Midwest & cool

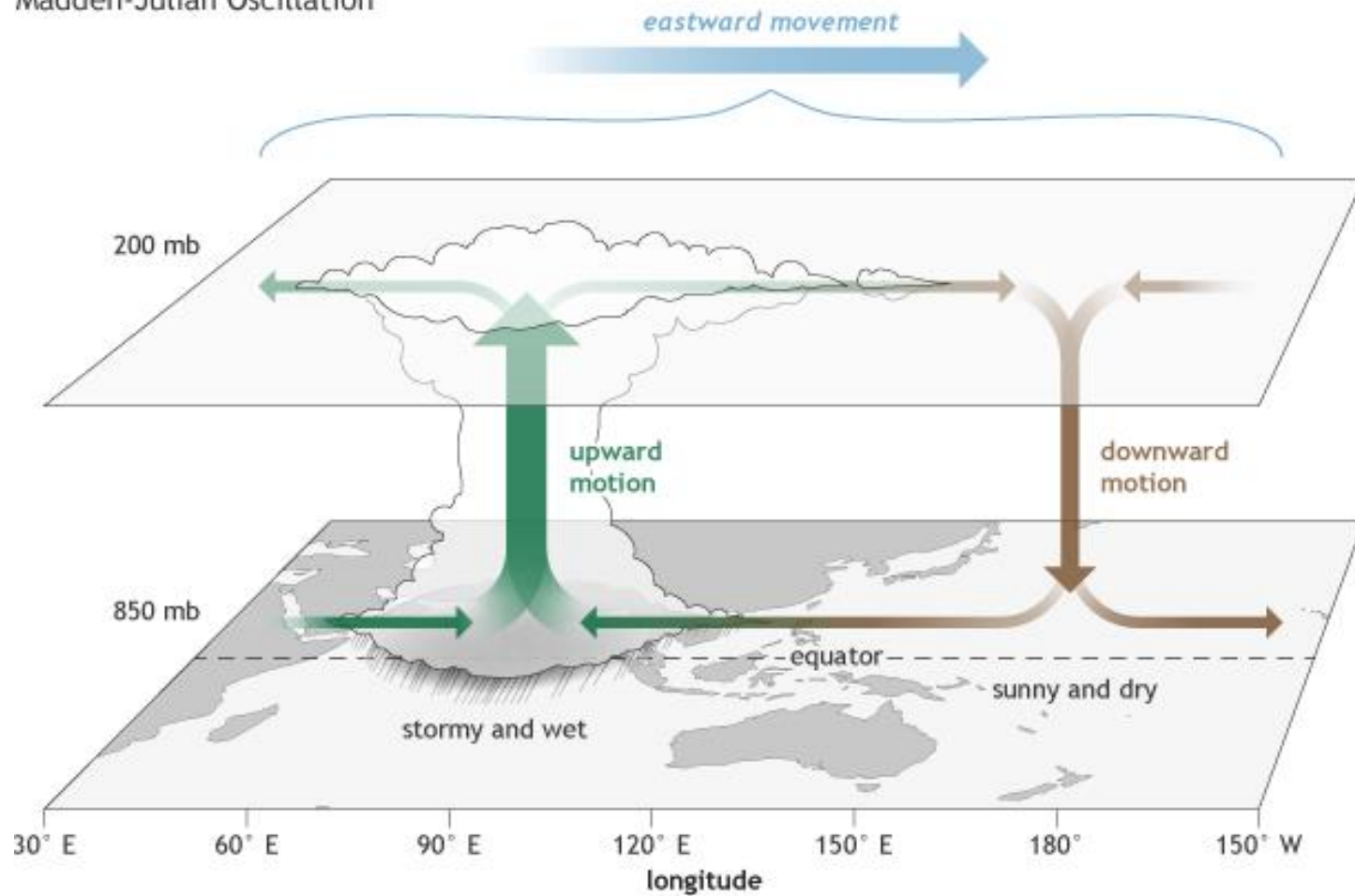
CFS FROM MAY 11 valid 6/2- 6/8



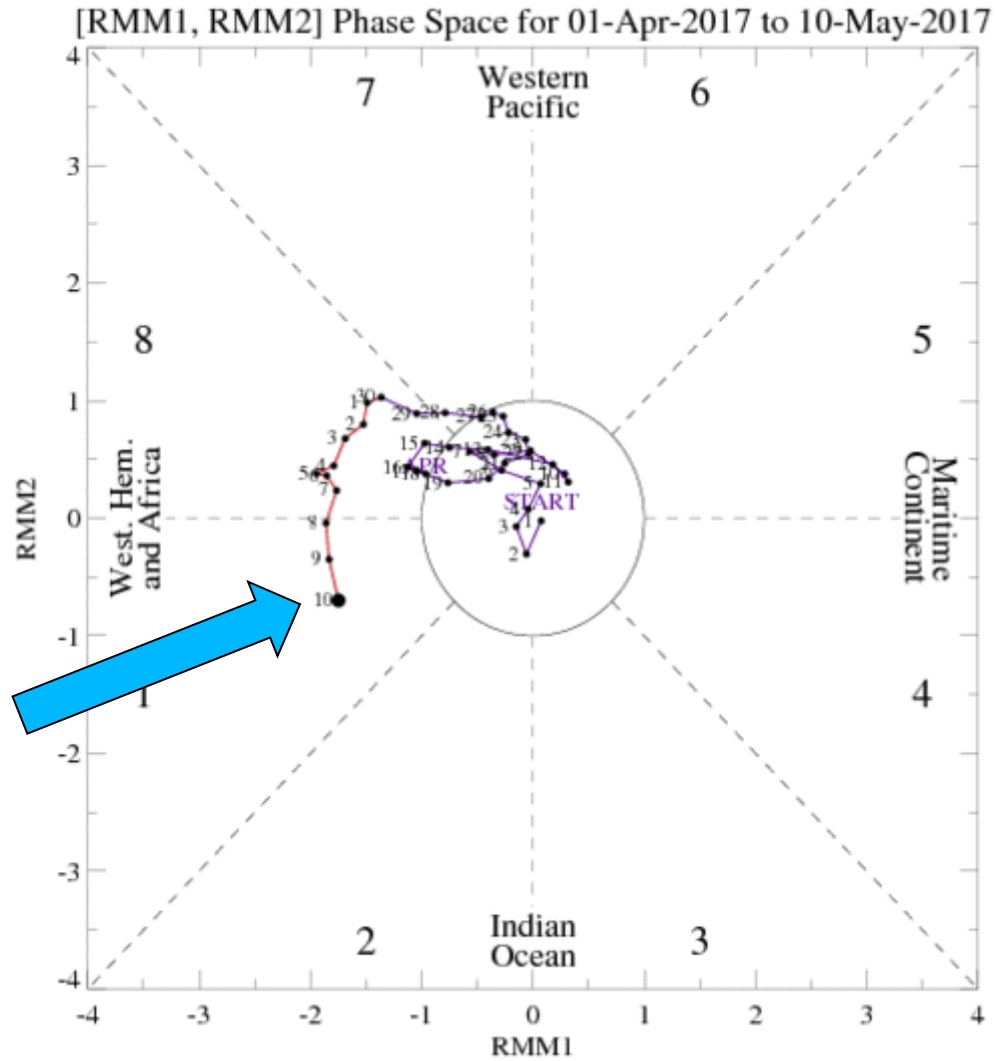
WET over Upper Plains into south Canada WARMER over all of Plains Midwest

LETS TALK MJO/ENSO

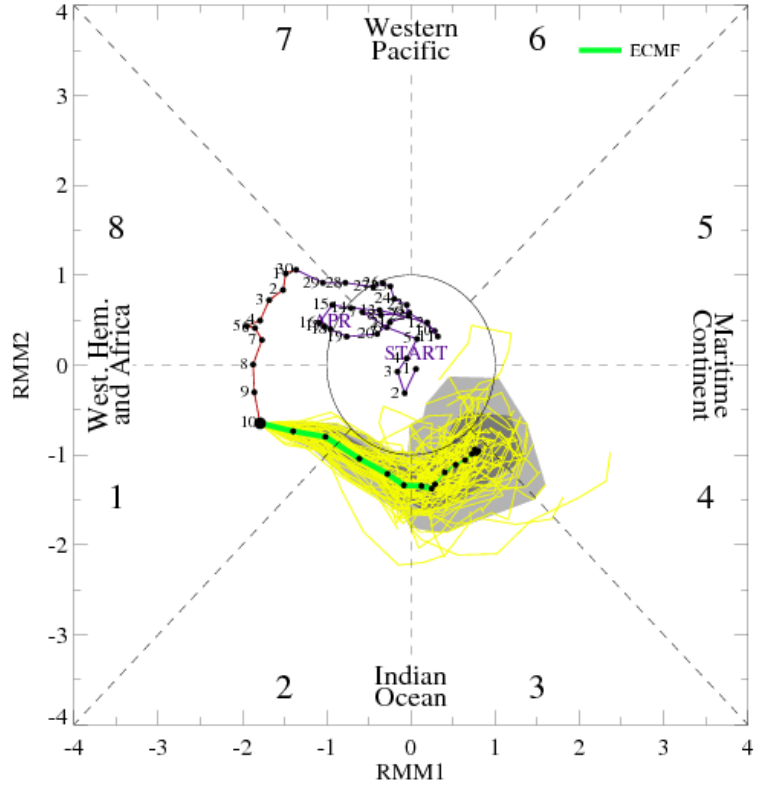
Madden-Julian Oscillation



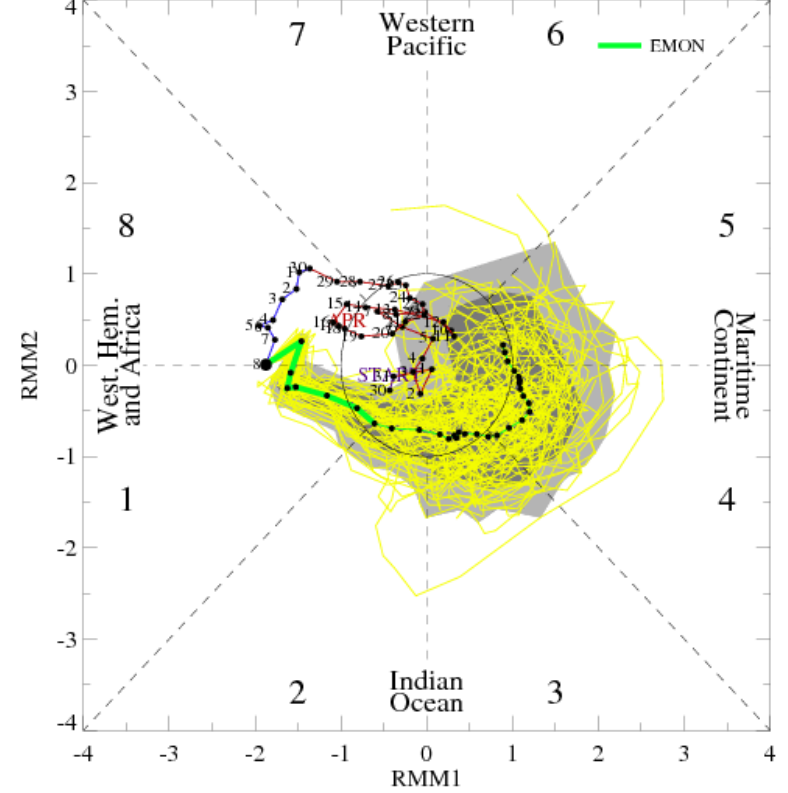
MJO NOW IN NEUTRAL



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

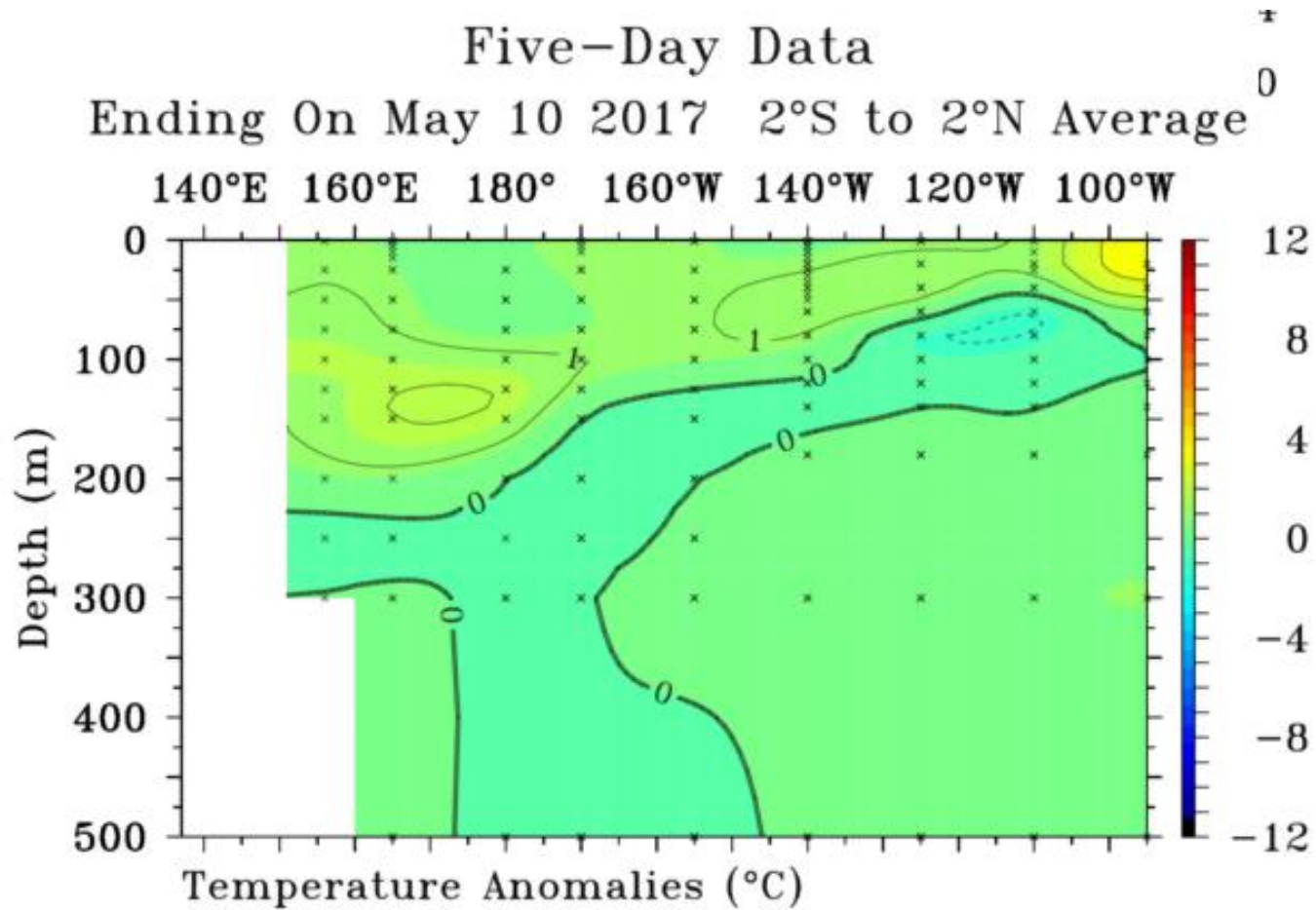
ENSO Alert System Status: Not Active

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.

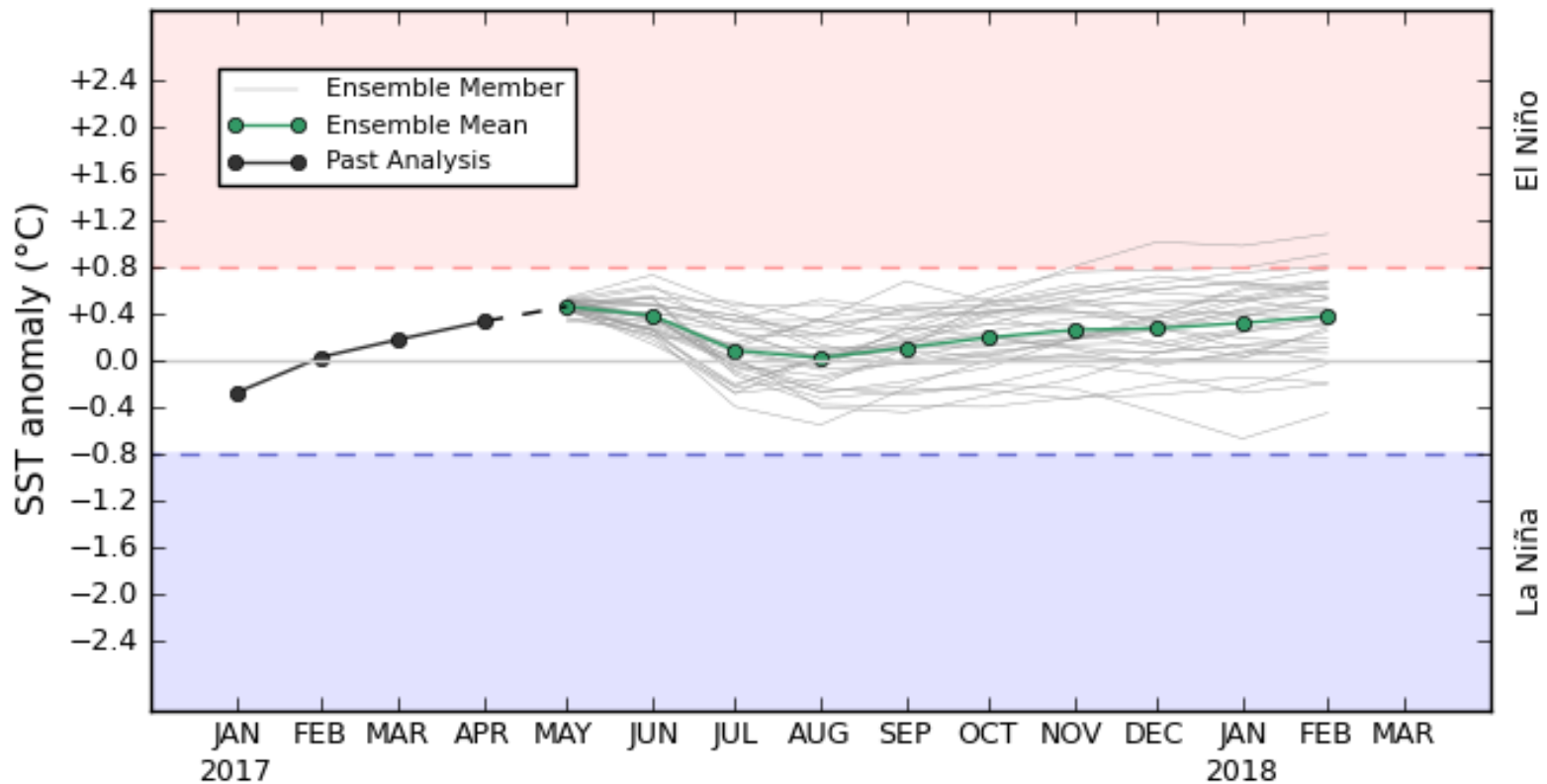
Most models predict the onset of El Niño (3-month average Niño-3.4 index at or greater than 0.5°C) during the Northern Hemisphere summer (Fig. 6). However, the NCEP CFSv2 and most of the statistical models are more conservative and indicate that while Niño-3.4 index may be near or greater than $+0.5^{\circ}\text{C}$ 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

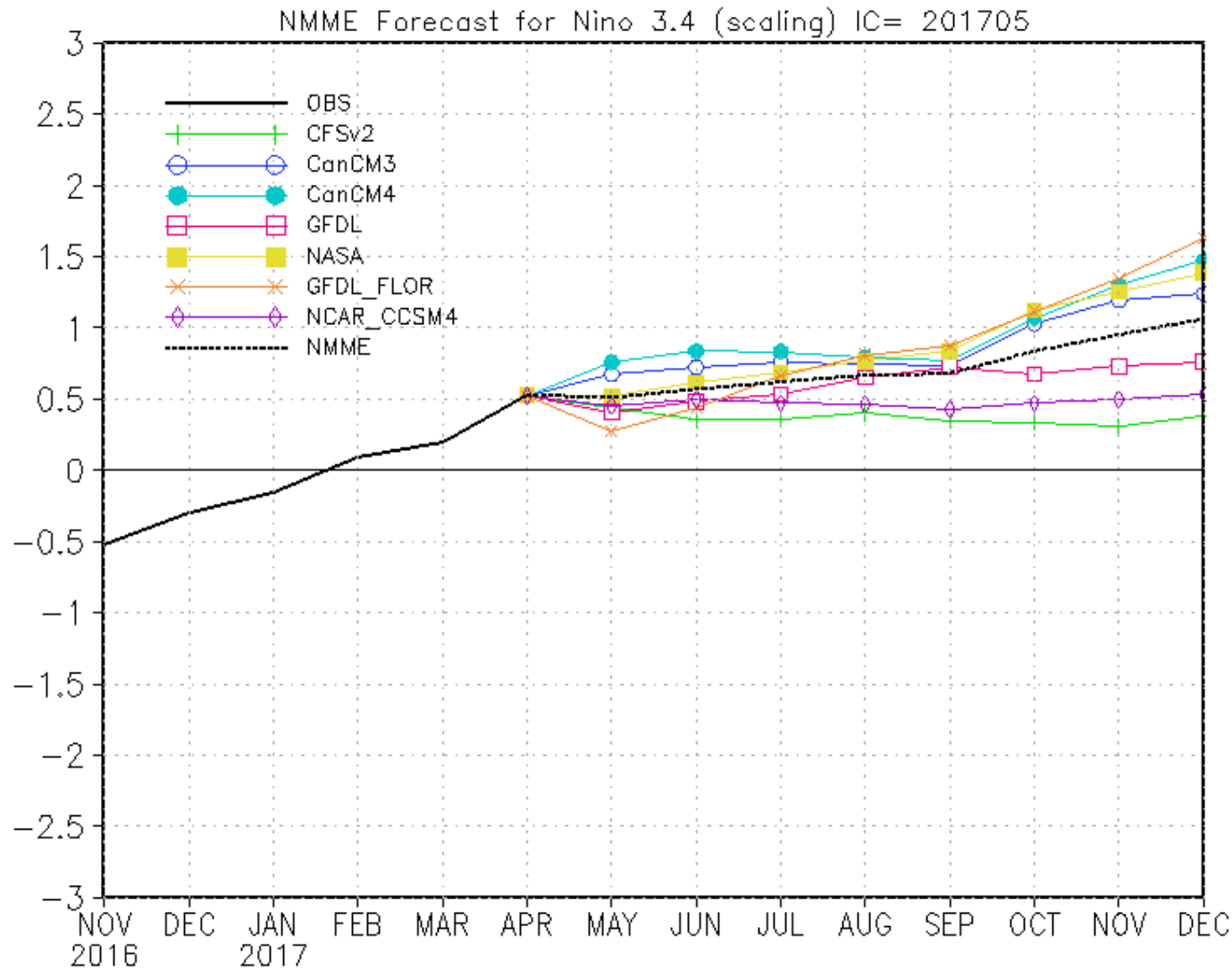


NEW AUSTRALIAN ENSO MODEL – again shows NO El Niño– actual COOLING in July August

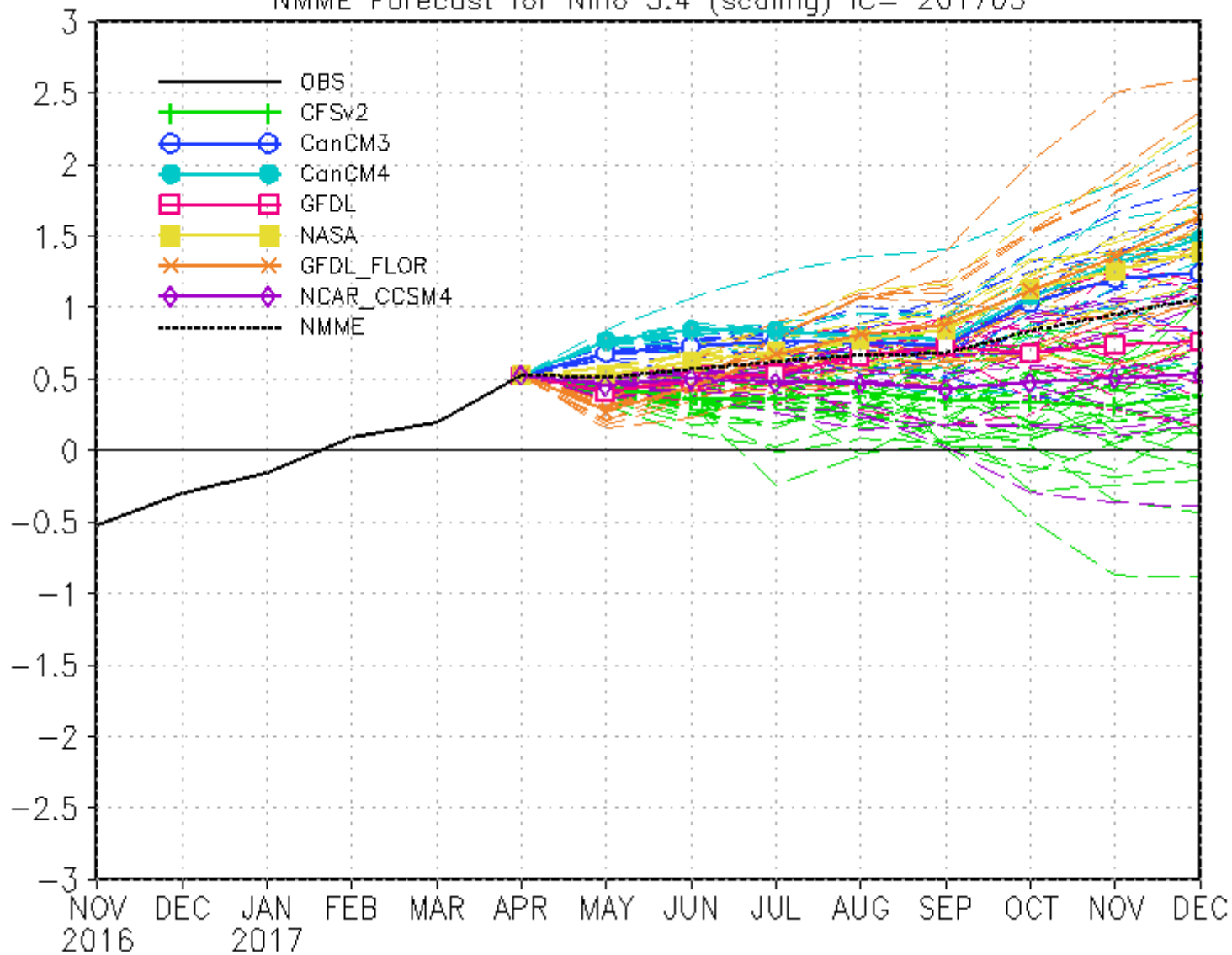
POAMA monthly mean NINO34 - Forecast Start: 7 MAY 2017



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



NMME Forecast for Nino 3.4 (scaling) IC= 201705

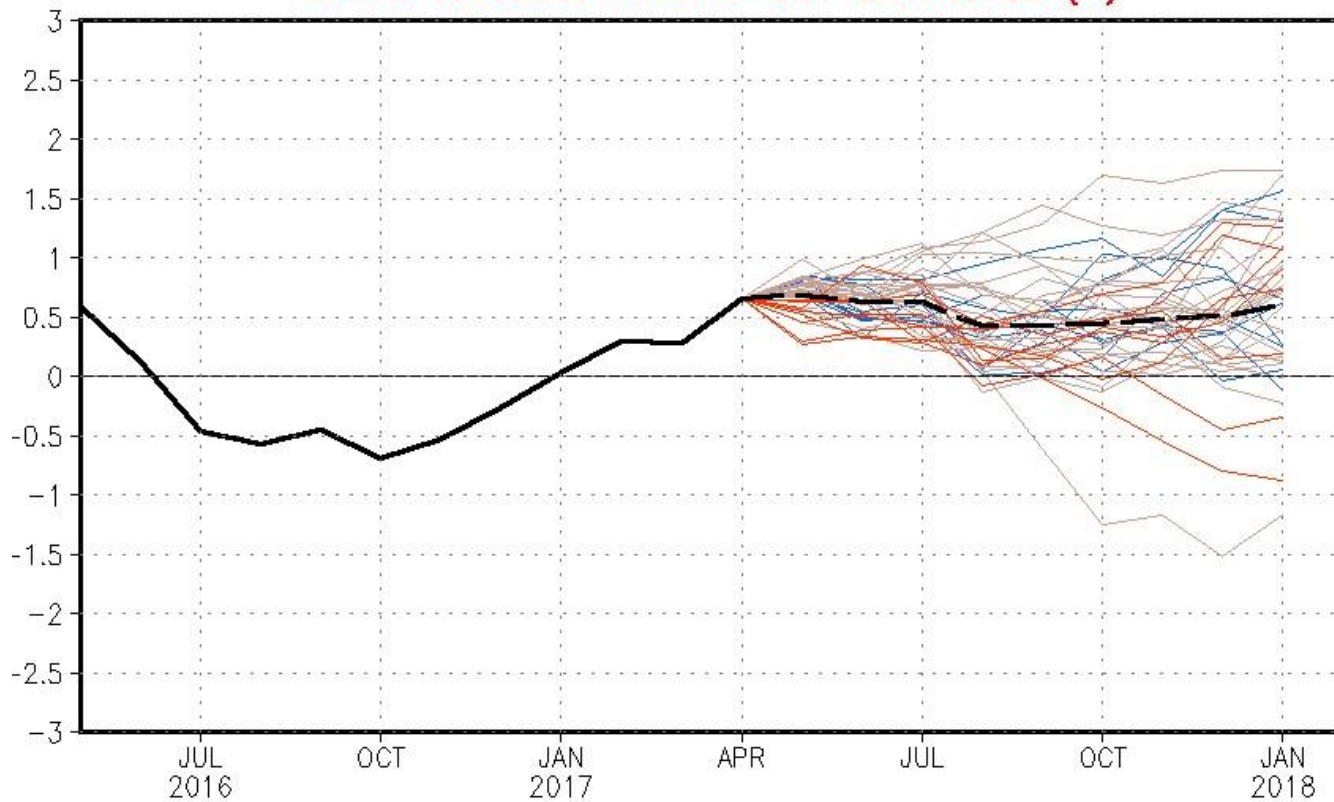


CFS FROM MAY 4 - based on data 4/23- 5/2

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
— NCDP daily analysis

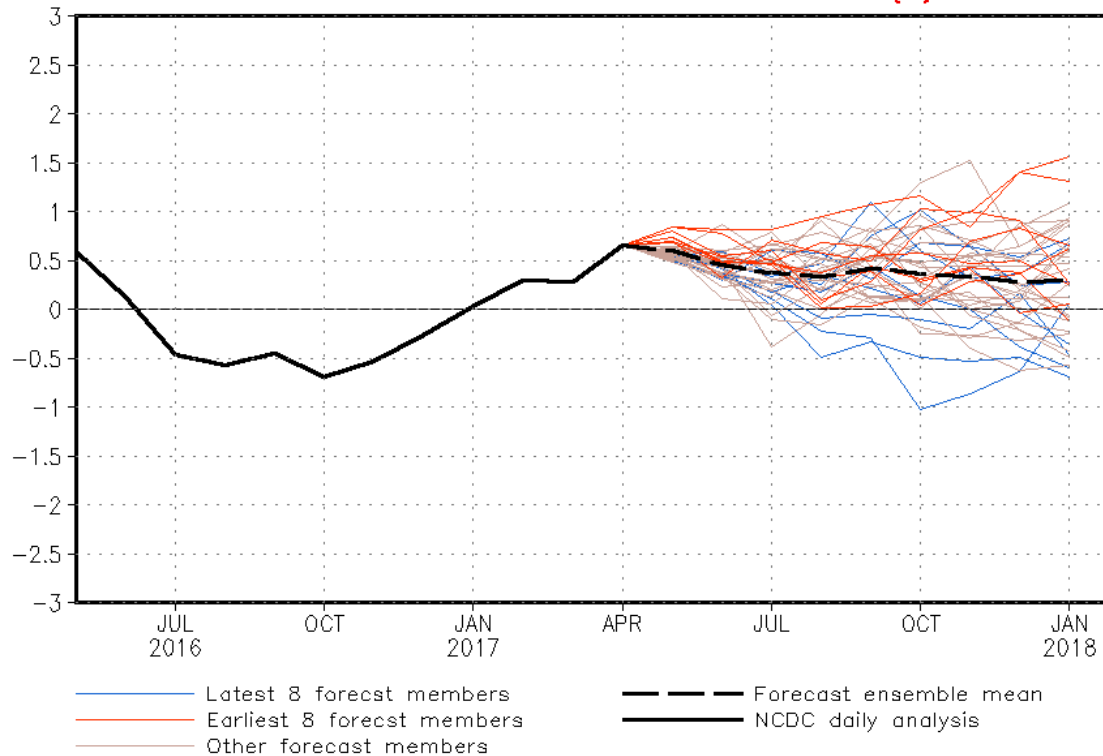
CFS FROM MAY 12 - based on data 5/1-5/10.. Looks cooler weaker. Again Notice how DASHED line drops down weakens in JULY AUG



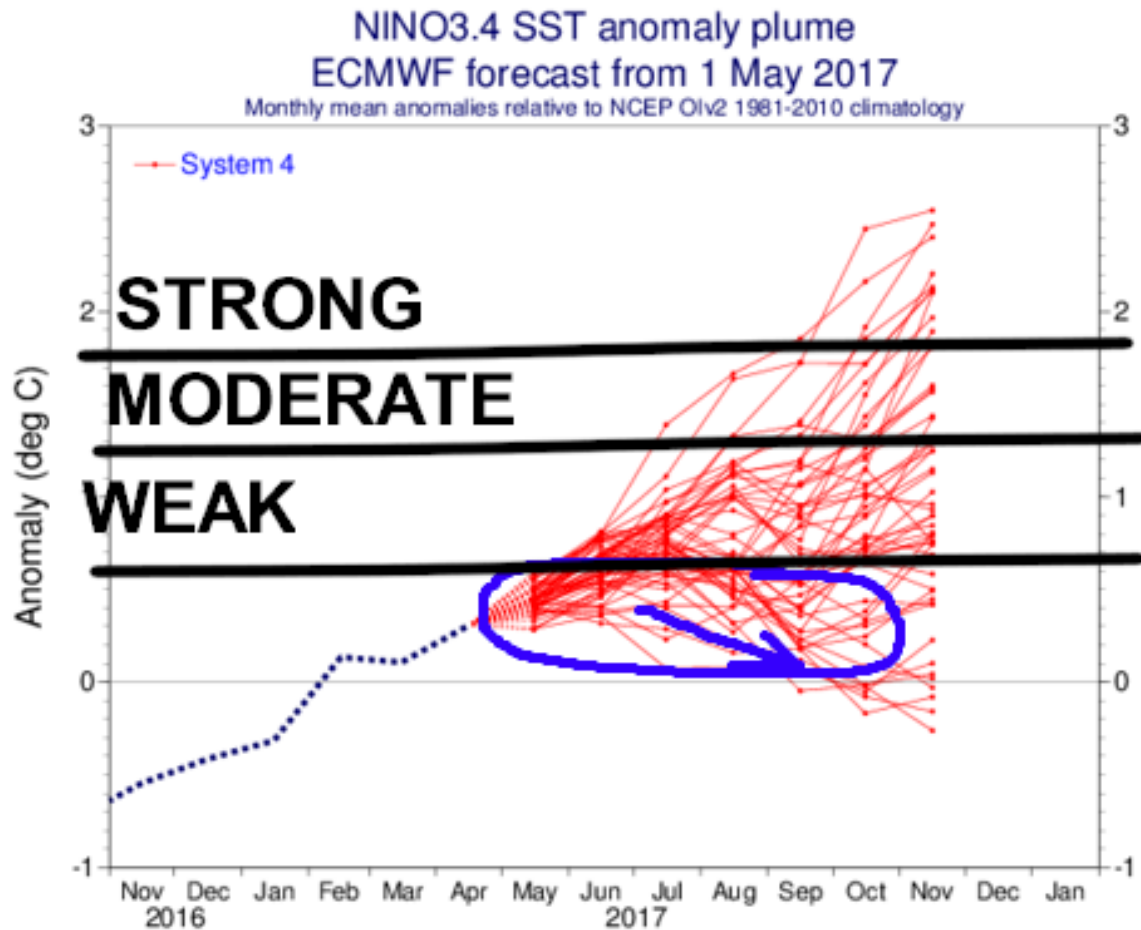
NWS/NCEP/CPC

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

CFSv2 forecast Nino3.4 SST anomalies (K)



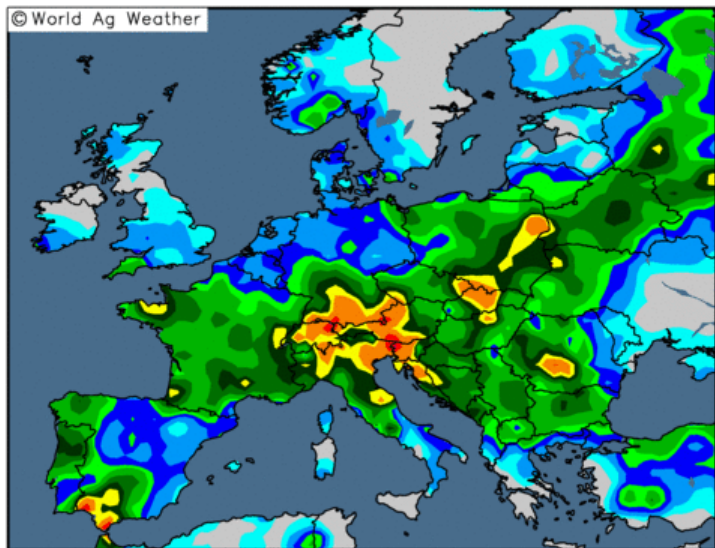
CEURO ENSO MODEL – 51 members issued MAY6- Again Notice how cluster of members that shows weakens in JULY AUG



EUROPE
CHINA GRAIN
WEATHER

14-day Precipitation Analysis

Observed precipitation (inches) through 12 UTC 10 May 2017



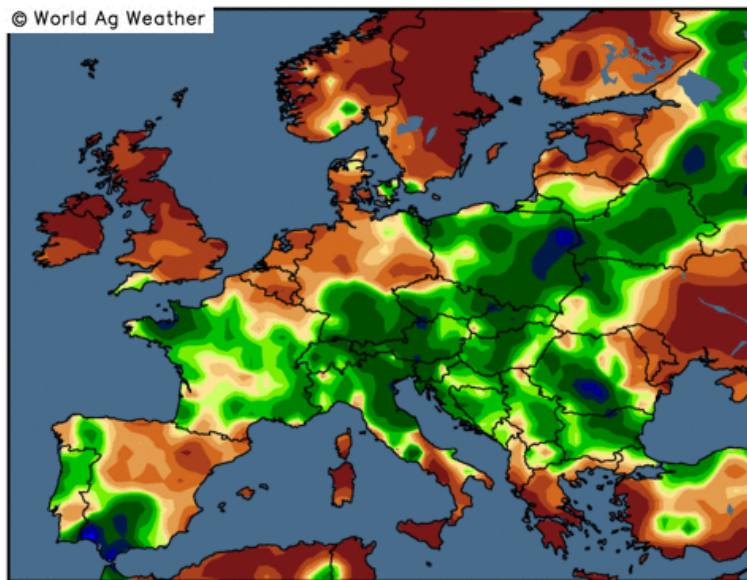
0.1 0.25 0.5 0.75 1 1.5 2 2.5 3 4 5 6 8 10

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

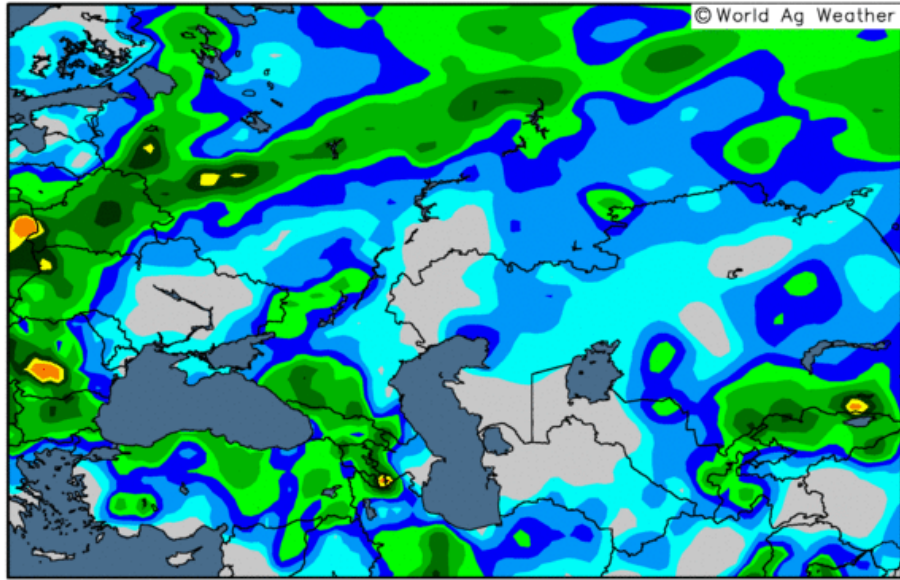


20 40 60 80 90 100 110 125 150 200 300 400 600

Map updates daily by approximately 20:30 UTC

14-day Precipitation Analysis

Observed precipitation (inches) through 12 UTC 10 May 2017

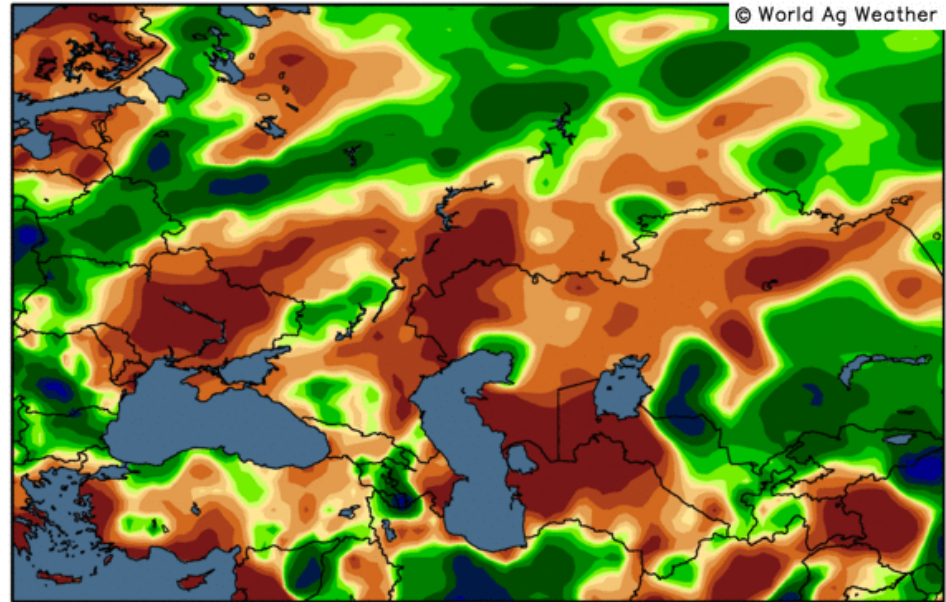


© World Ag Weather

UKRAINE & MUCH OF SW RUSSIA DRY LAST 2 WEEKS

14-day Precipitation Analysis

Percent of normal through 12 UTC 10 May 2017



© World Ag Weather

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

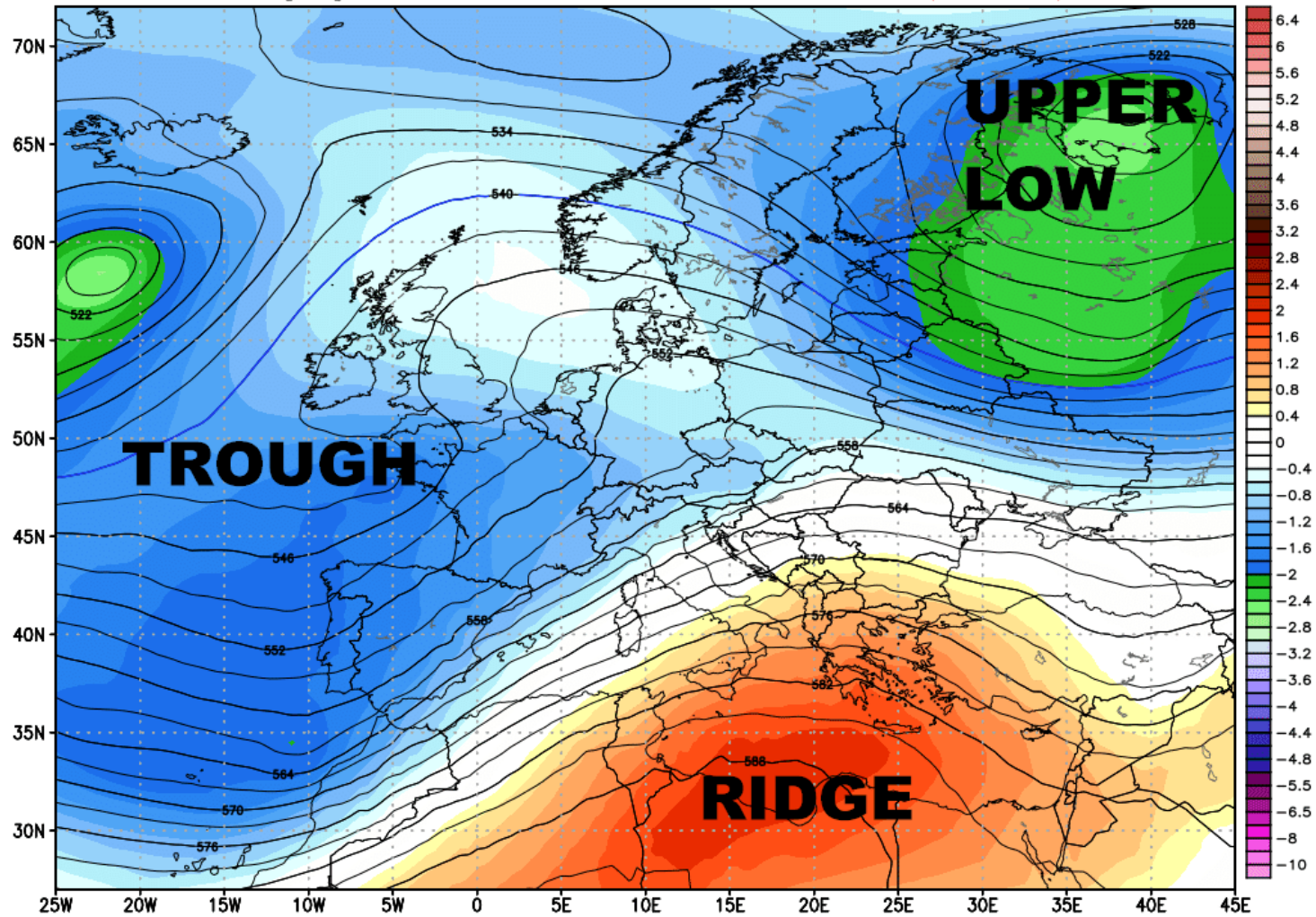
20 40 60 80 90 100 110 125 150 200 300 400 600

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

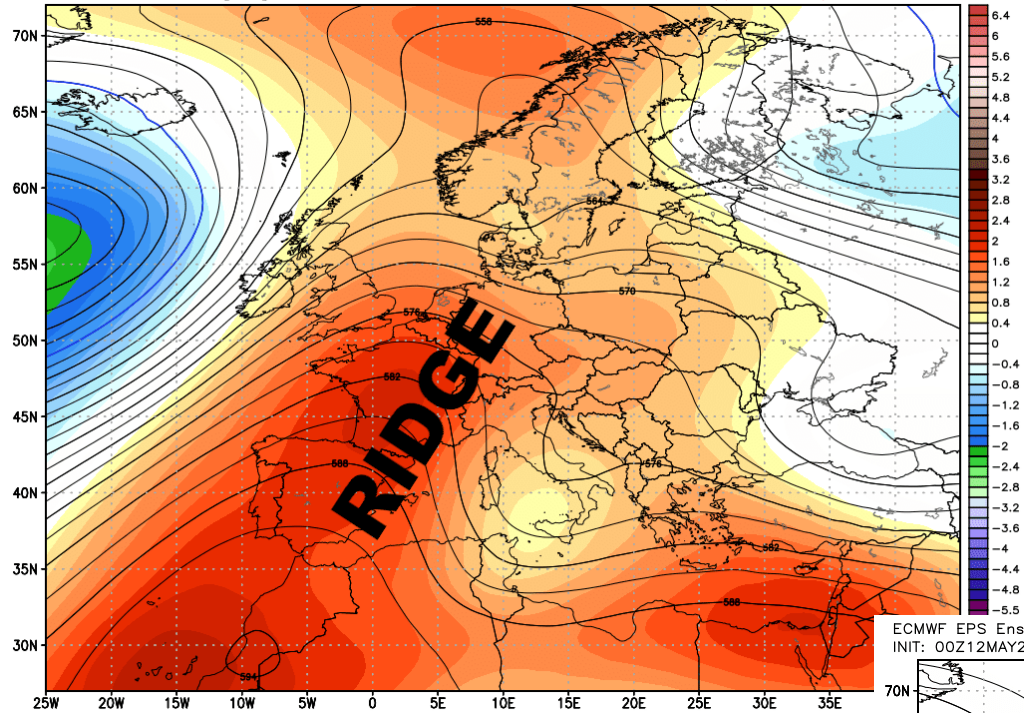
Min|Max: -2.6 | 2.0 std dev



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

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

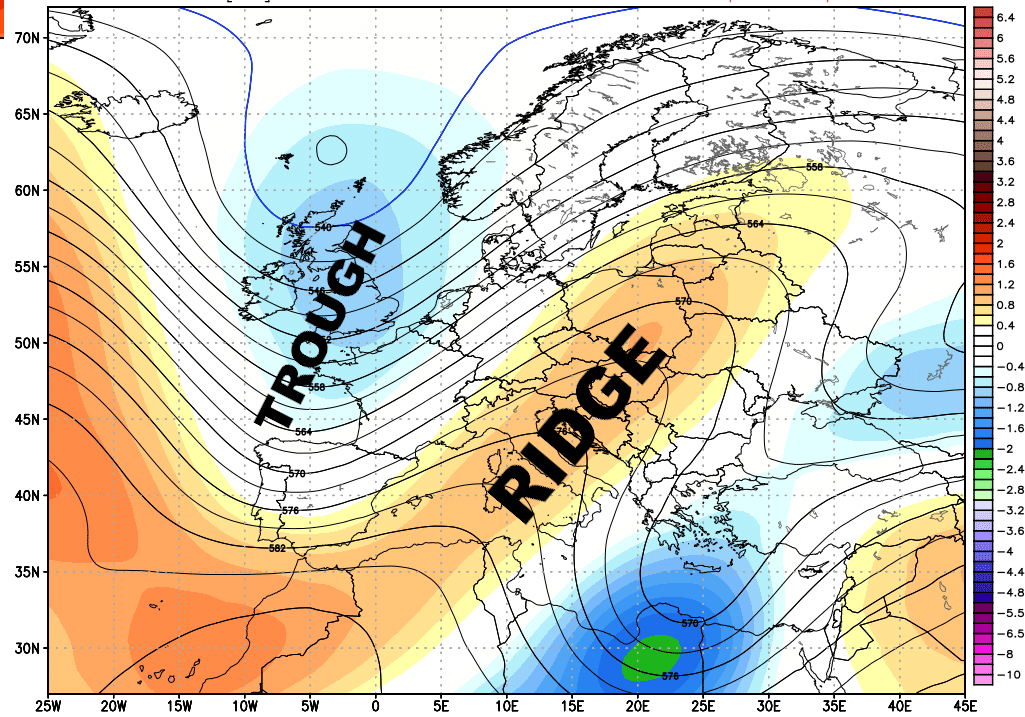
Min|Max: -2.2 | 2.4 std dev



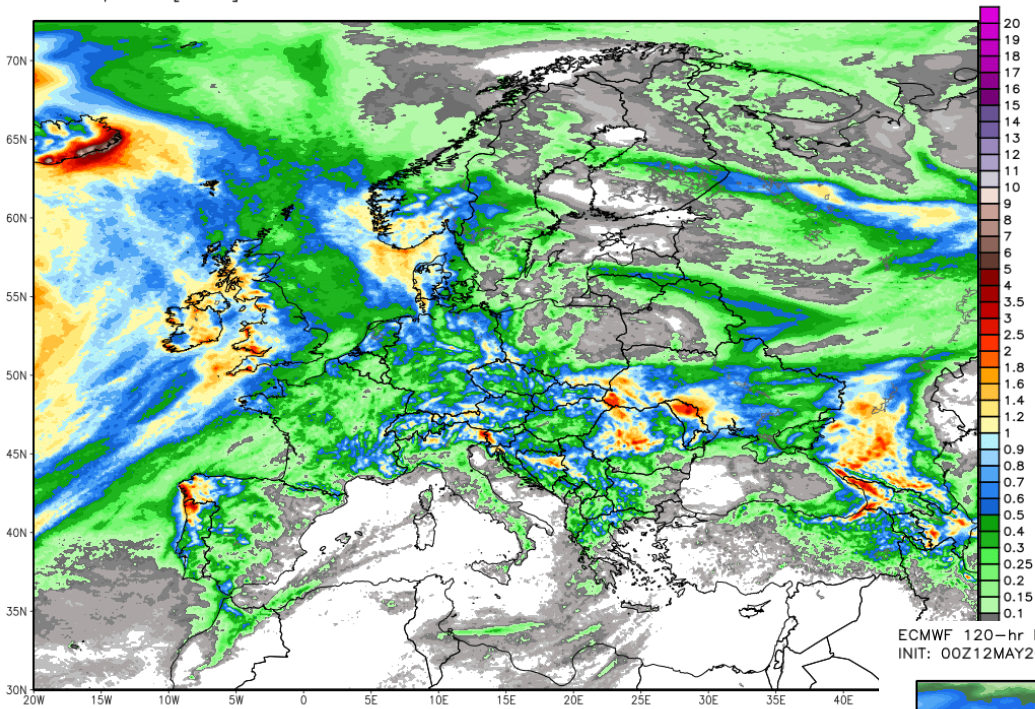
ECMWF EPS Ensemble Mean 500 hPa Z [dm] & Normalized Anomaly [std devs]

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

Min|Max: -2.1 | 1.4 std dev

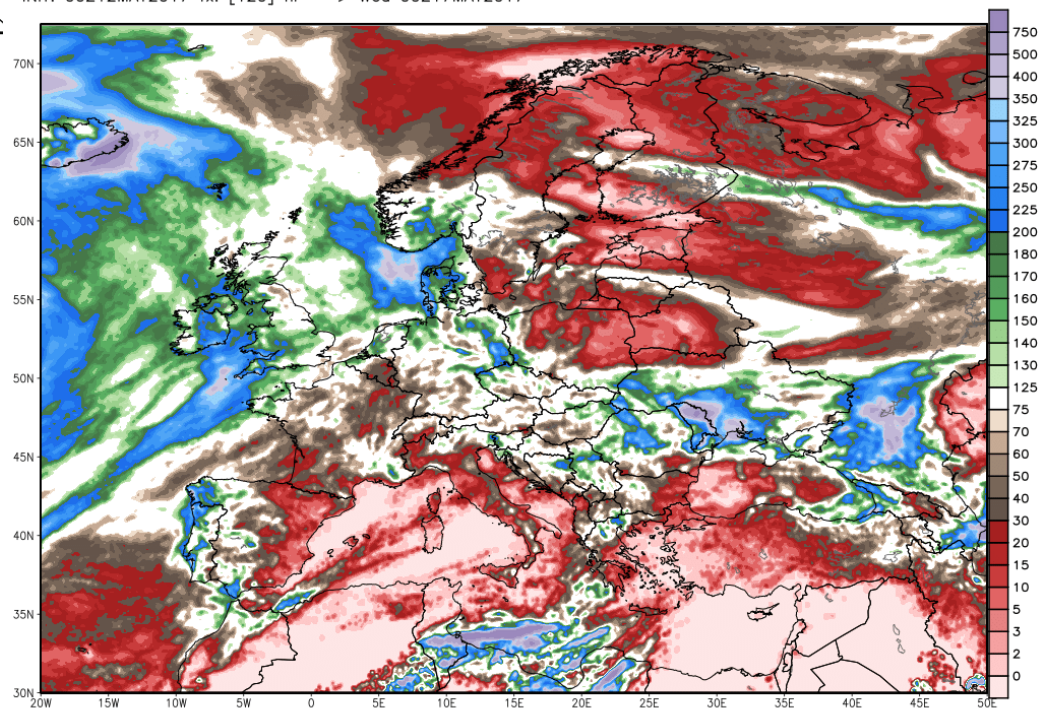


ECMWF 120-hourly Precipitation [inch] INIT: 00Z12MAY2017 fx: [120] hr --> Wed 00Z17MAY2017
Total Precipitation [inches] between 00Z12MAY2017 -- 00Z17MAY2017

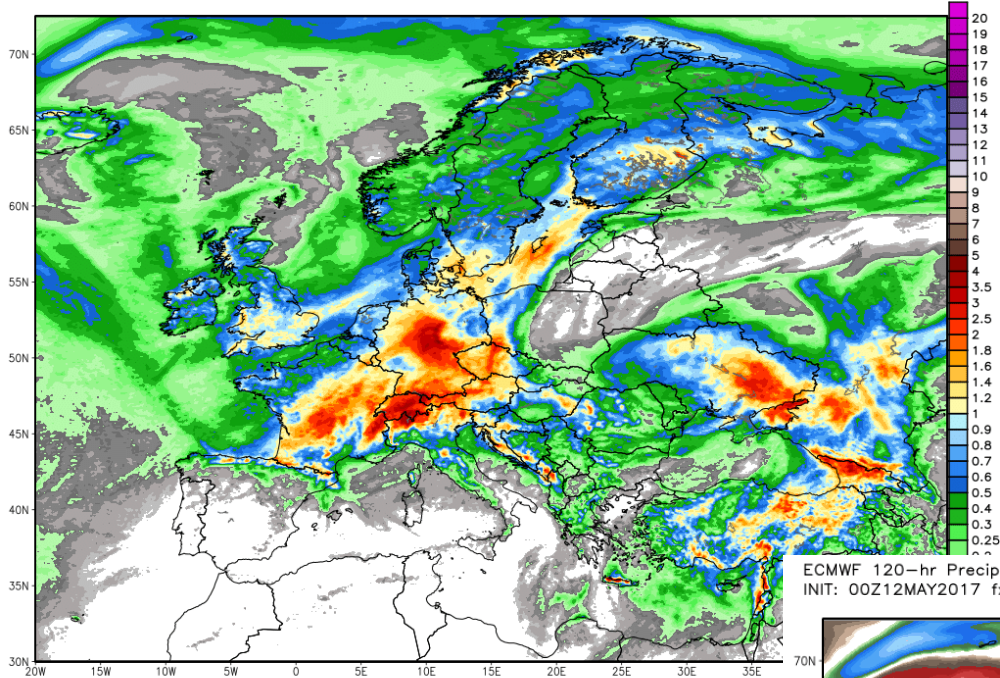


Moderate rains over much of Europe 1-2" / 25-50mm over much of UKRAINE & SOUTHERN District

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

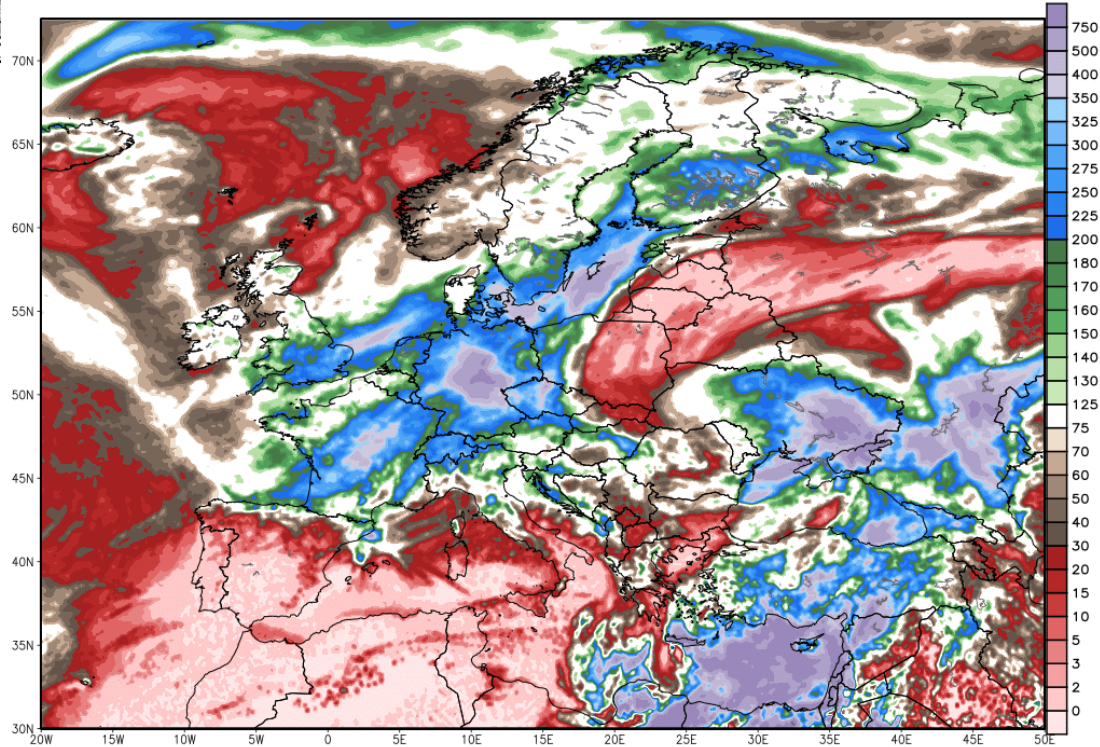


ECMWF 120-hourly Precipitation [inch] INIT: 00Z12MAY2017 fx: [240] hr --> Mon 00Z22MAY2017
Total Precipitation [inches] between 00Z17MAY2017 -- 00Z22MAY2017



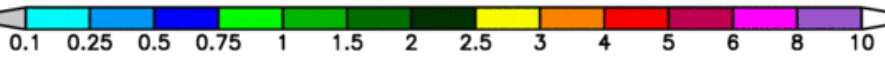
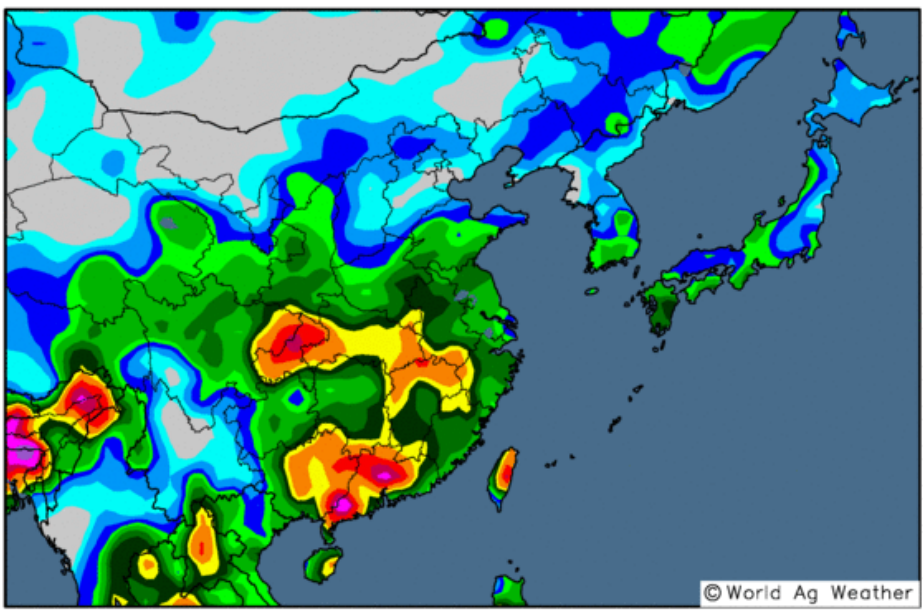
**6-10D = 0.75-3.0" /
20-75mm over
central eastern FR
much of GER &
eastern UKRAINE &
SOUTHERN Districts**

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



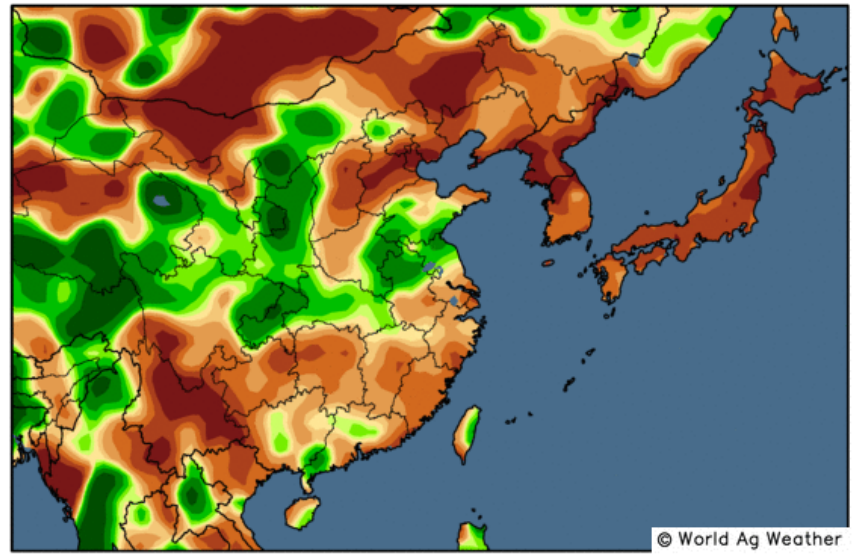
Map updates daily by approximately 20:30 UTC

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

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

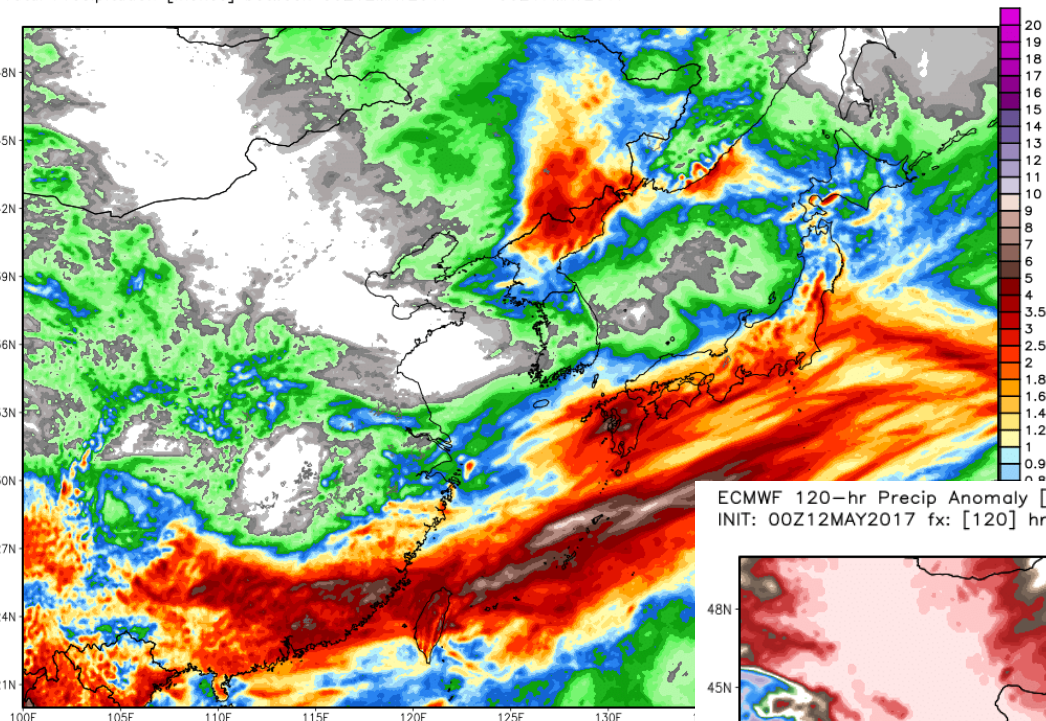
14-day Precipitation Analysis

Percent of normal through 12 UTC 10 May 2017



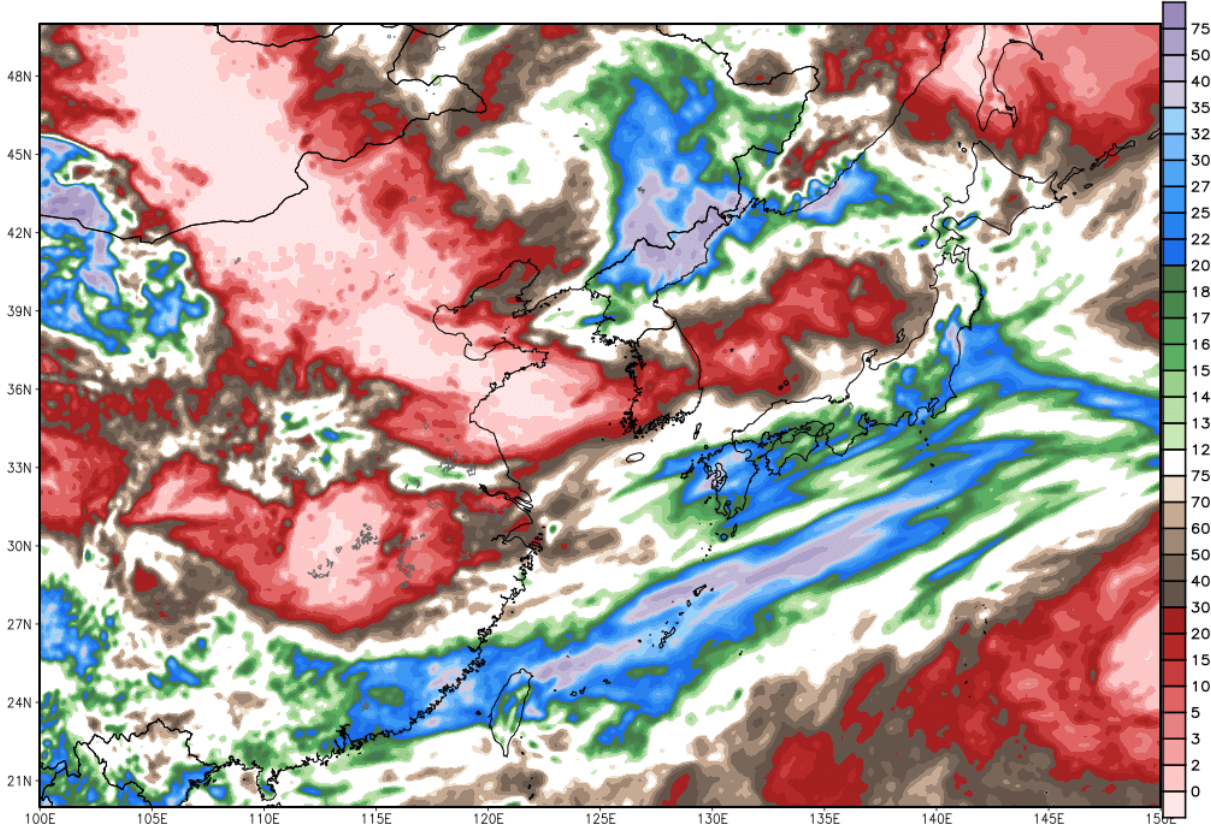
Map updates daily by approximately 20:30 UTC

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



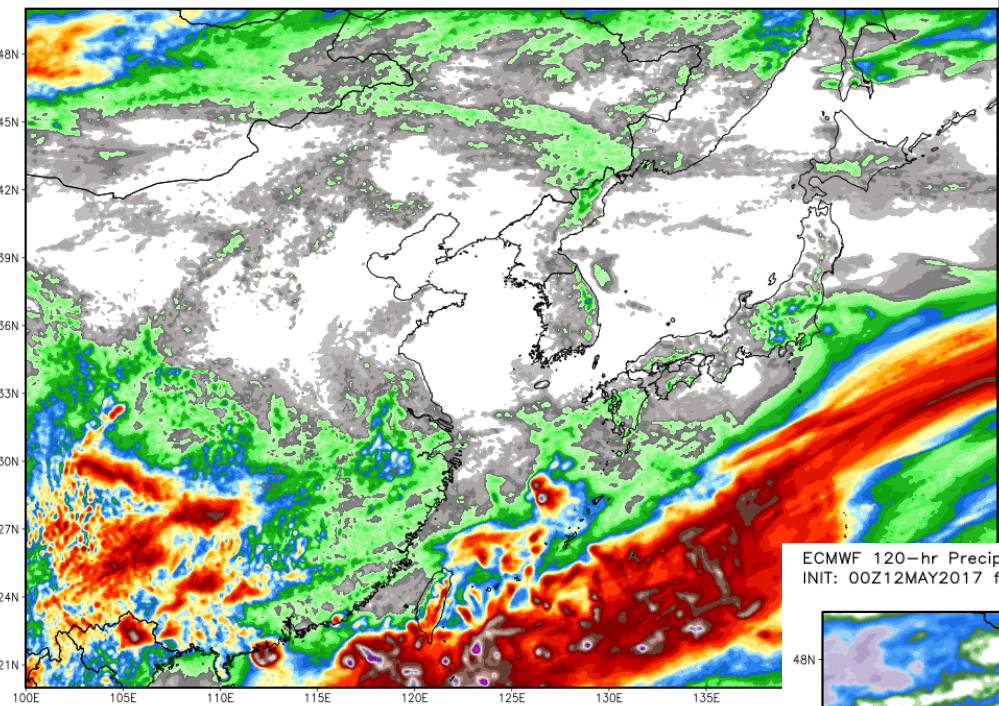
**1-5D- great rains for
se China BUT 100%
dry NCP & all
Manchuria**

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

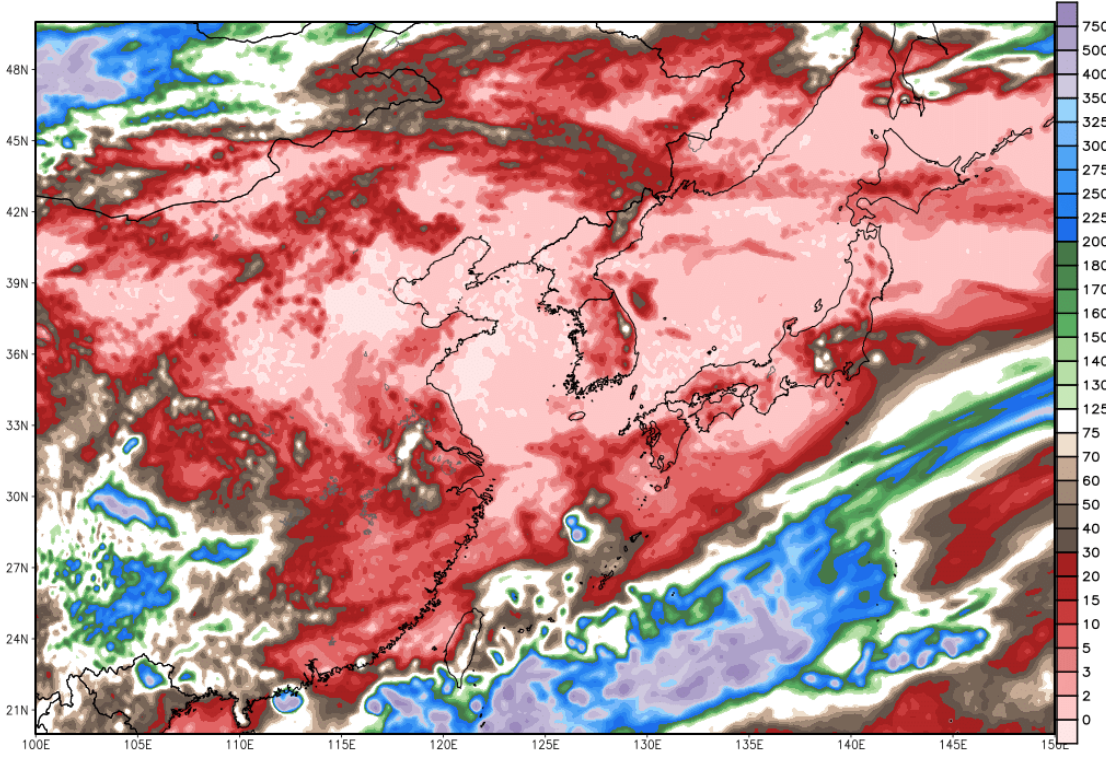


ECMWF 120-hourly Precipitation [inch] INIT: 00Z12MAY2017 fx: [240] hr --> Mon 00Z22MAY2017
Total Precipitation [inches] between 00Z17MAY2017 -- 00Z22MAY2017

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

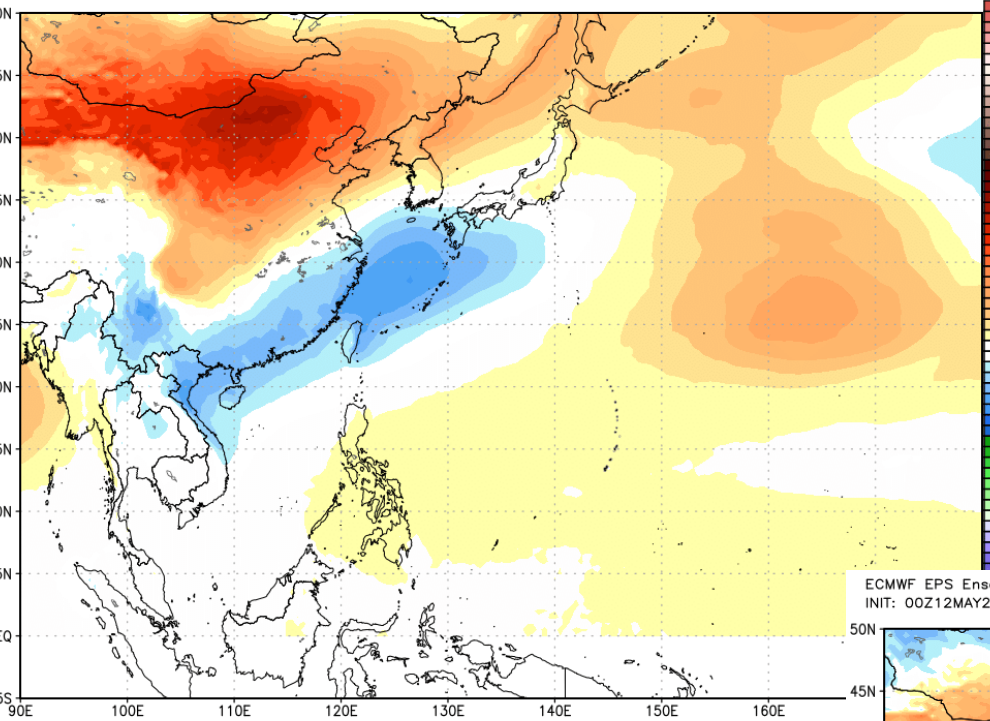


ECMWF 120-hr Precip Anomaly [% of normal] between 00Z17MAY2017 -- 00Z22MAY2017
INIT: 00Z12MAY2017 fx: [240] hr --> Mon 00Z22MAY2017

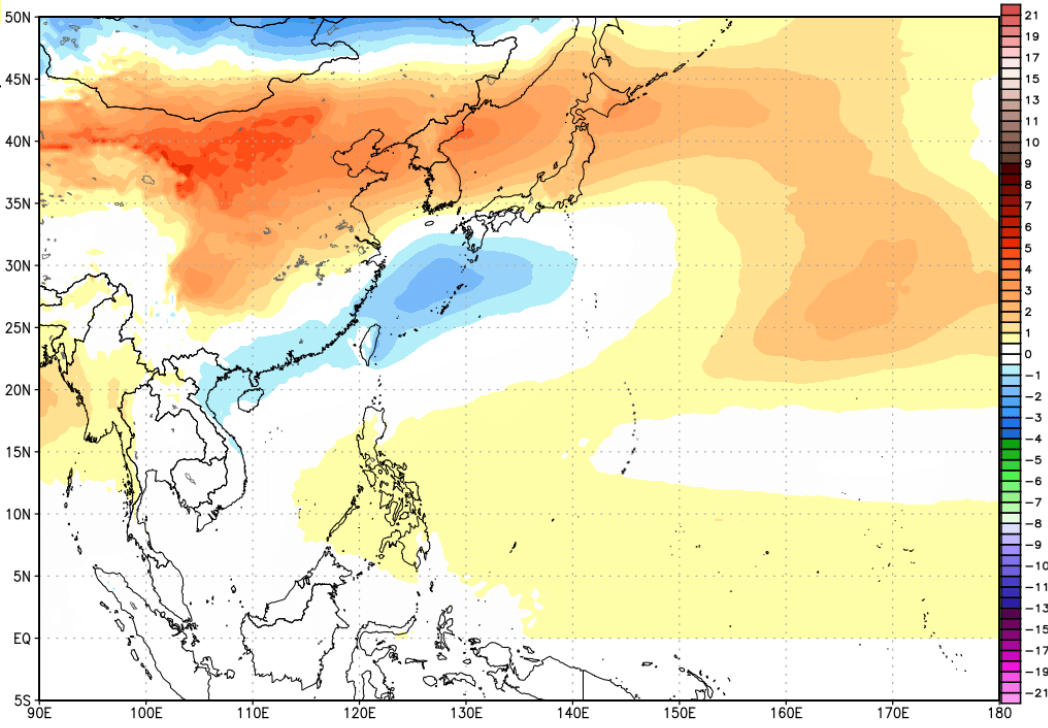


ECMWF EPS Ensemble Mean 850 hPa Temperature Anomaly [°C] fx: [216] hr --> Sun 00Z21MAY2017
INIT: 00Z12MAY2017 5-day Mean between 00Z16MAY2017 & 00Z21MAY2017 Day 4 - Day 9 Min|Max -2.7° | 7.0°C

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

