



Weather Forecasting For  
Traders, Investors, and Businesses

# US HRWW GRAIN WEATHER ISSUES

**as of FRIDAY**  
**2 FEBRUARY 2018**



LOCATED in Richmond VA

Featured frequently on AGRI-MONEY

**EMAIL WXRISK@VERZION .NET**



@WXRISK.COM



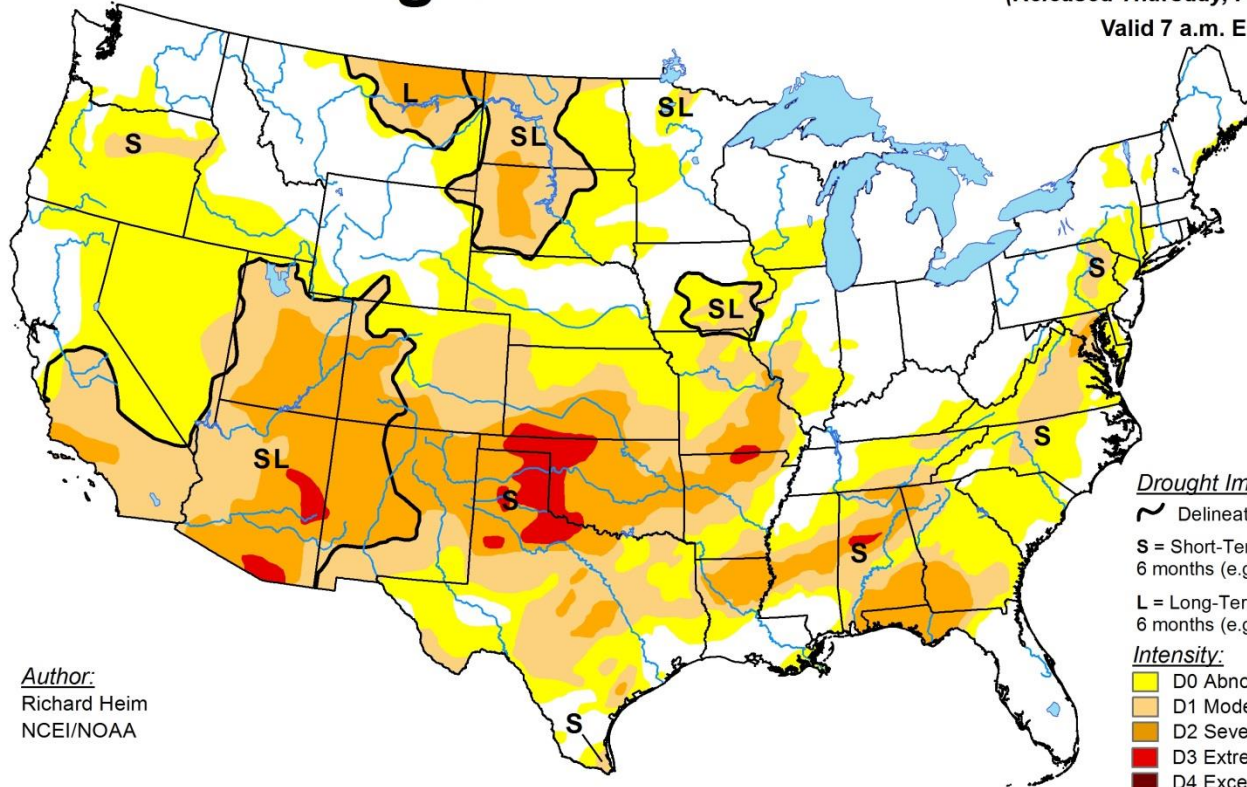
<https://www.facebook.com/WxRisk>

[wxrisk@gmail.com](mailto:wxrisk@gmail.com)

# DROUGHT CONDITIONS OVER MOST OF PLAINS / DELTA WORSENING WEEKLY


## U.S. Drought Monitor

January 30, 2018  
(Released Thursday, Feb. 1, 2018)  
Valid 7 a.m. EST








*Author:*  
Richard Heim  
NCEI/NOAA

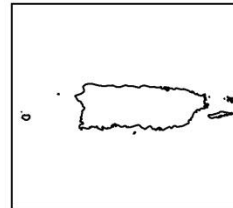
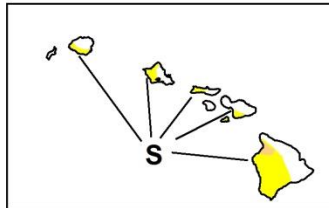
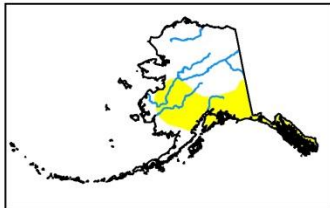
### Drought Impact Types:

-  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:

-  D0 Abnormally Dry
-  D1 Moderate Drought
-  D2 Severe Drought
-  D3 Extreme Drought
-  D4 Exceptional Drought

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



<http://droughtmonitor.unl.edu/>

**% OF AREA IN ANY DROUGHT D0-D4 = 10/31/17 was 50% but as of 1/30/18 = 99%**

**% OF AREA IN SERIOUS DROUGHT D2-D4 = 10/31/17 was 0% but as of 1/30/18 = 29%**

*U.S. Drought Monitor*

## South

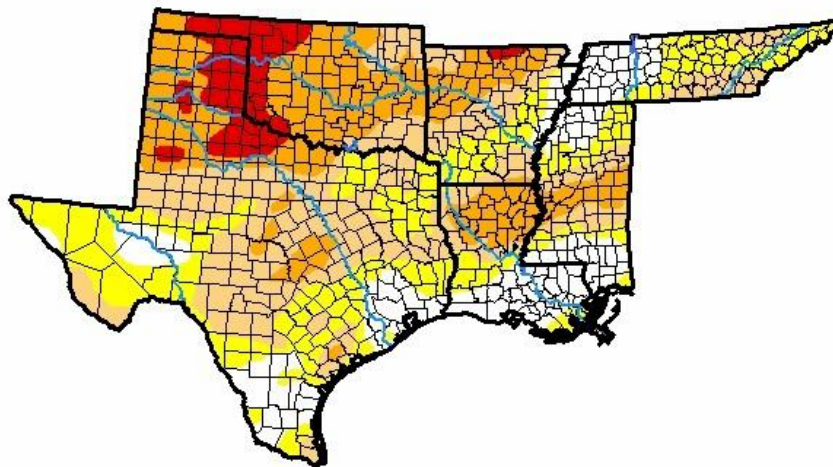
**January 30, 2018**

*(Released Thursday, Feb. 1, 2018)*

Valid 7 a.m. EST

*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	16.79	83.21	57.69	29.36	6.74	0.00
<b>Last Week</b> <i>01-23-2018</i>	17.17	82.83	53.71	22.85	4.33	0.00
<b>3 Months Ago</b> <i>10-31-2017</i>	65.38	34.62	10.50	0.06	0.00	0.00
<b>Start of Calendar Year</b> <i>01-02-2018</i>	31.09	68.91	42.64	15.33	0.30	0.00
<b>Start of Water Year</b> <i>09-26-2017</i>	72.17	27.83	2.38	0.02	0.00	0.00
<b>One Year Ago</b> <i>01-31-2017</i>	68.68	31.32	17.70	6.40	0.73	0.00



*Intensity:*

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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*Author:*

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NCEI/NOAA

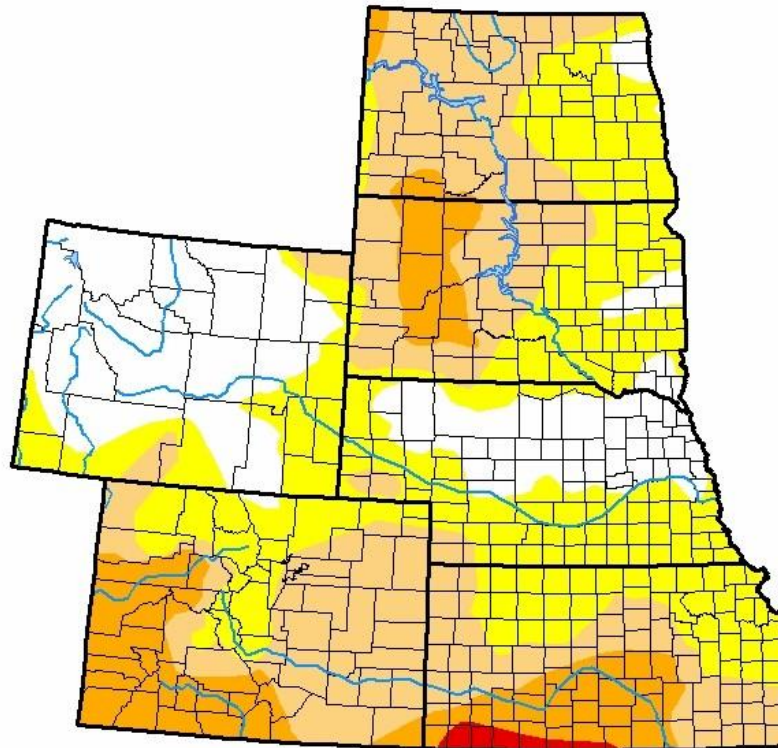


**% OF AREA IN ANY DROUGHT D0-D4 = 10/31/17 was 35% but as of 1/30/18 = 79%**

**% OF AREA IN SERIOUS DROUGHT D2-D4 = 10/31/17 was 3% but as of 1/30/18 = 14%**

**U.S. Drought Monitor  
High Plains**

**January 30, 2018**  
(Released Thursday, Feb. 1, 2018)  
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	21.65	78.35	43.93	13.70	0.69	0.00
<b>Last Week</b> <i>01-23-2018</i>	18.95	81.05	41.55	12.11	0.66	0.00
<b>3 Months Ago</b> <i>10-31-2017</i>	64.75	35.25	13.70	3.26	0.90	0.00
<b>Start of Calendar Year</b> <i>01-02-2018</i>	19.28	80.72	29.19	6.34	0.90	0.00
<b>Start of Water Year</b> <i>09-26-2017</i>	56.15	43.85	21.11	8.37	1.32	0.06
<b>One Year Ago</b> <i>01-31-2017</i>	62.40	37.60	18.60	1.23	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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NCEI/NOAA

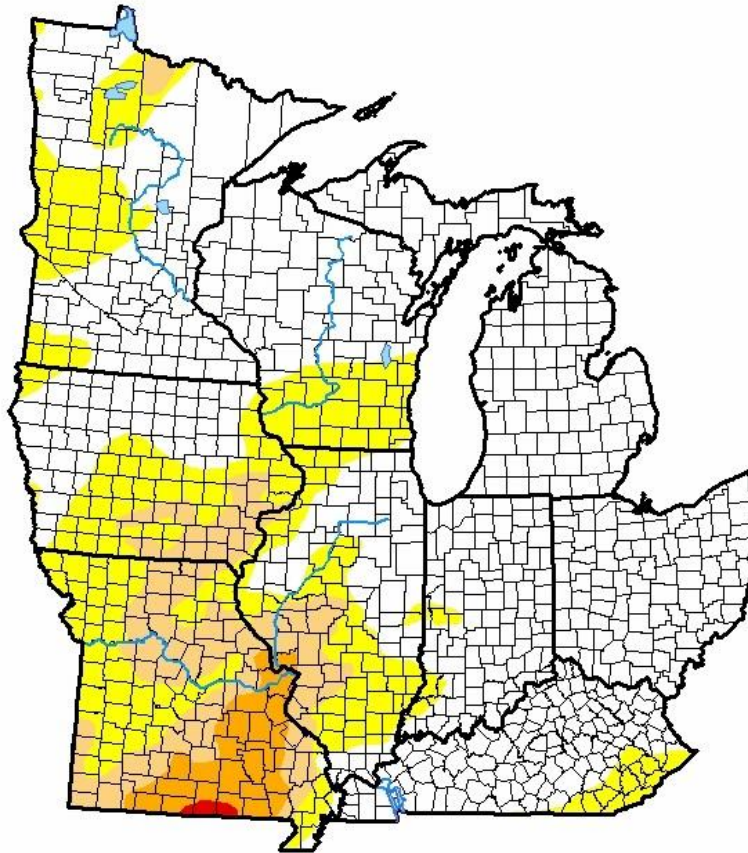


**% OF AREA IN ANY DROUGHT D0-D4 = 10/31/17 was 22% but as of 1/30/18 = 35%**

**% OF AREA IN SERIOUS DROUGHT D2-D4 = 10/31/17 was 0% but as of 1/30/18 = 1%**

**U.S. Drought Monitor  
Midwest**

**January 30, 2018**  
(Released Thursday, Feb. 1, 2018)  
Valid 7 a.m. EST



*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	64.86	35.14	12.52	3.44	0.18	0.00
<b>Last Week</b> <i>01-23-2018</i>	65.82	34.18	11.36	3.44	0.18	0.00
<b>3 Months Ago</b> <i>10-31-2017</i>	77.92	22.08	7.17	0.00	0.00	0.00
<b>Start of Calendar Year</b> <i>01-02-2018</i>	69.93	30.07	9.46	3.44	0.18	0.00
<b>Start of Water Year</b> <i>09-26-2017</i>	58.41	41.59	8.86	0.77	0.25	0.00
<b>One Year Ago</b> <i>01-31-2017</i>	84.69	15.31	1.37	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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

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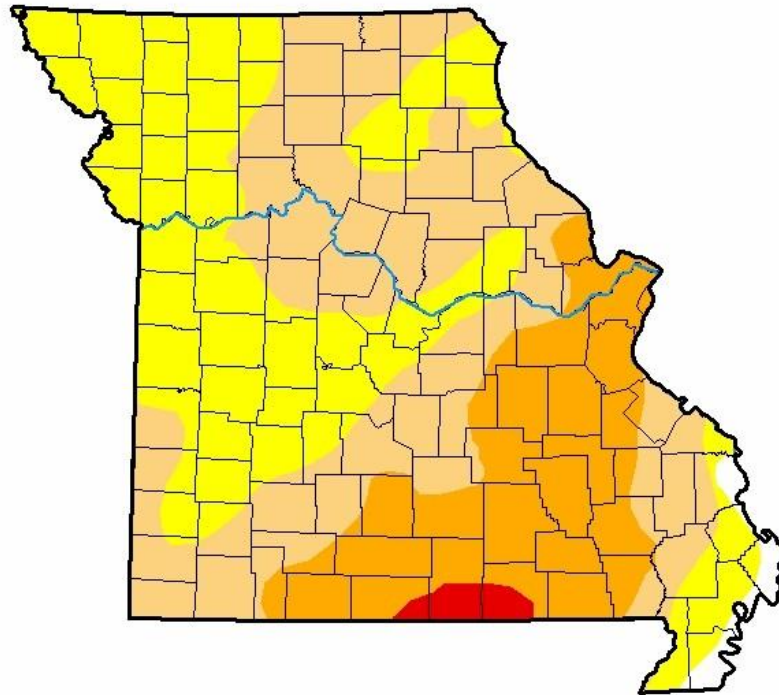


**% OF AREA IN ANY DROUGHT D0-D4 = 10/31/17 was 50% but as of 1/30/18 = 99%**

**% OF AREA IN SERIOUS DROUGHT D2-D4 = 10/31/17 was 0% but as of 1/30/18 = 24%**

**U.S. Drought Monitor  
Missouri**

**January 30, 2018**  
(Released Thursday, Feb. 1, 2018)  
Valid 7 a.m. EST



*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	1.50	98.50	61.89	23.68	1.29	0.00
<b>Last Week</b> <i>01-23-2018</i>	1.50	98.50	53.59	23.68	1.29	0.00
<b>3 Months Ago</b> <i>10-31-2017</i>	40.91	59.09	34.54	0.00	0.00	0.00
<b>Start of Calendar Year</b> <i>01-02-2018</i>	1.49	98.51	46.34	23.68	1.29	0.00
<b>Start of Water Year</b> <i>09-26-2017</i>	35.49	64.51	8.80	0.00	0.00	0.00
<b>One Year Ago</b> <i>01-31-2017</i>	11.01	88.99	8.51	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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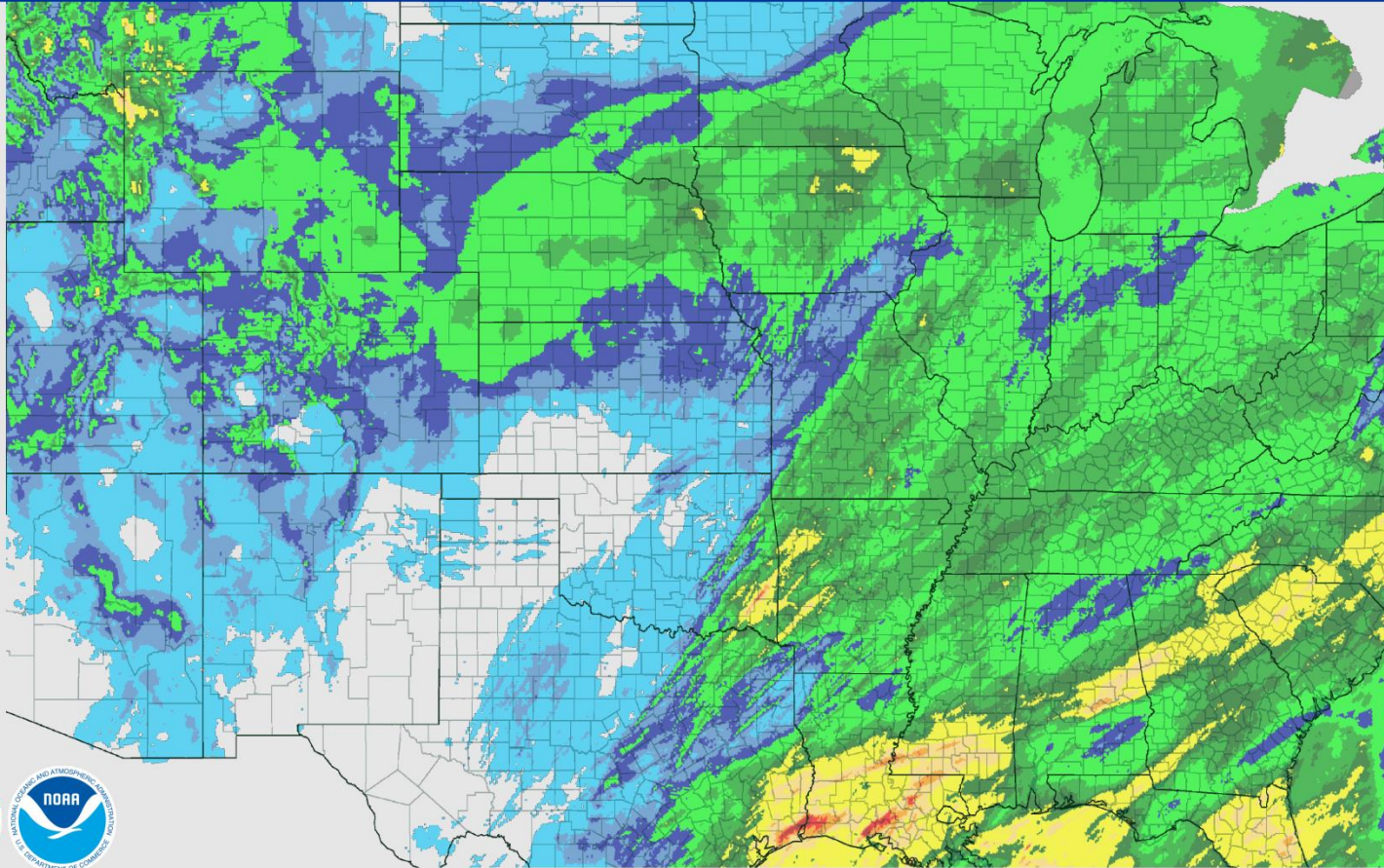


# RAINFALL AMOUNTS AND ANOMALIES PAST 14 DAYS

February 01, 2018 14-Day Observed Precipitation

Created on: February 02, 2018 - 06:40 UTC

Valid on: February 01, 2018 12:00 UTC



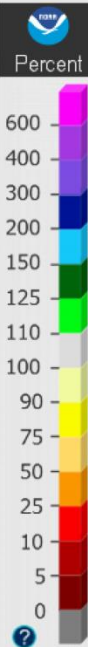
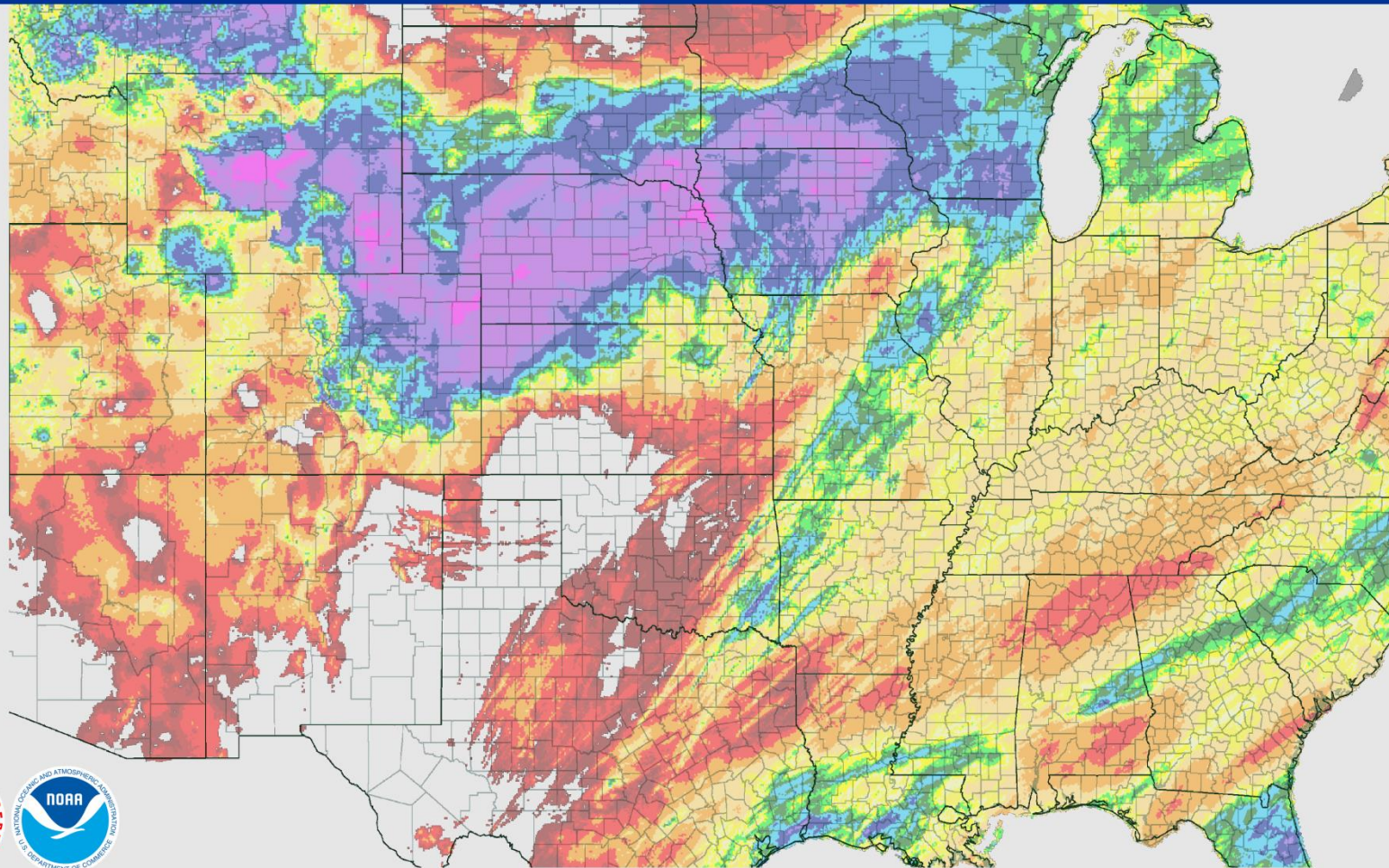


# RAINFALL AMOUNTS AND ANOMALIES PAST 14 DAYS

February 01, 2018 14-Day Percent Precipitation

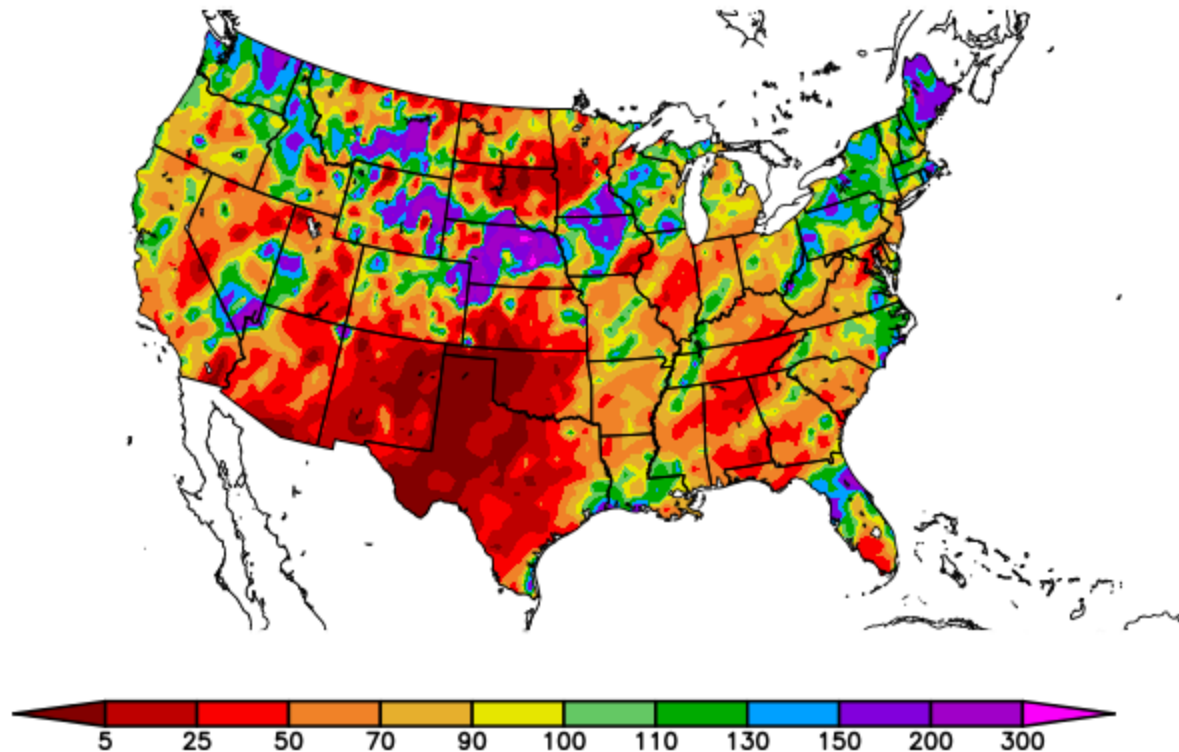
Created on: February 02, 2018 - 06:41 UTC

Valid on: February 01, 2018 12:00 UTC



# PRECIP ANOMALIES PAST 30 DAYS

Percent of Normal Precipitation (%)  
1/1/2018 - 1/31/2018

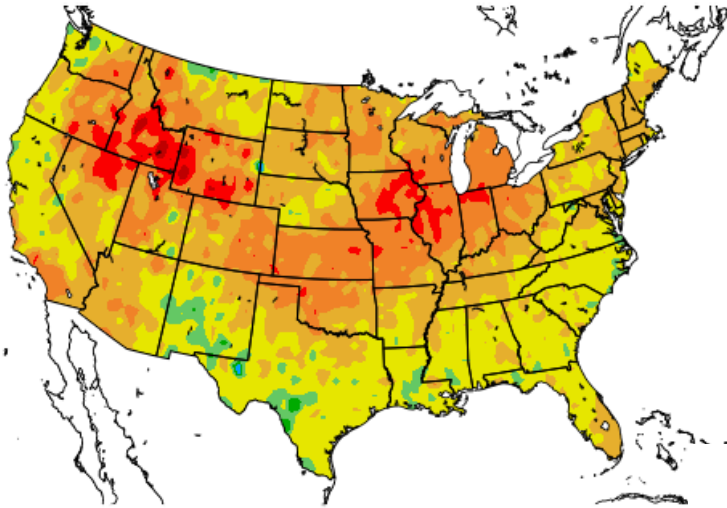


Generated 2/1/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Temperature (F)  
1/25/2018 – 1/31/2018

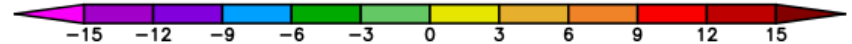
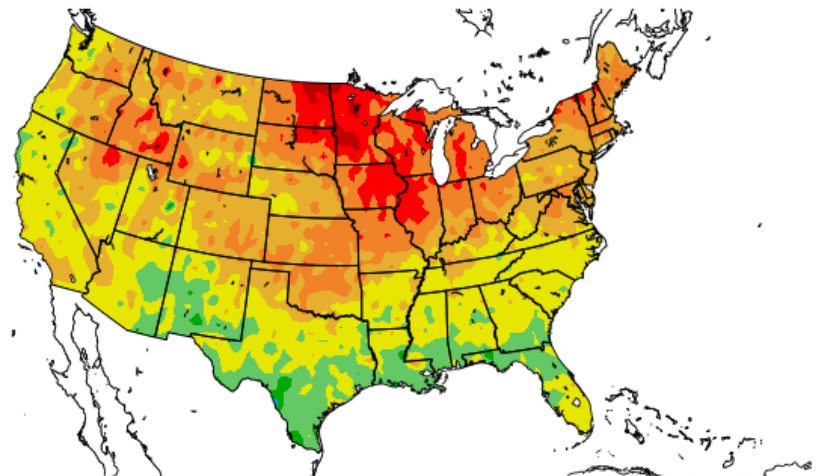
# JAN 2018 TEMP ANOMALIES



Generated 2/1/2018 at HPRCC using provisional data.

NOAA Reg

Departure from Normal Temperature (F)  
1/18/2018 – 1/31/2018

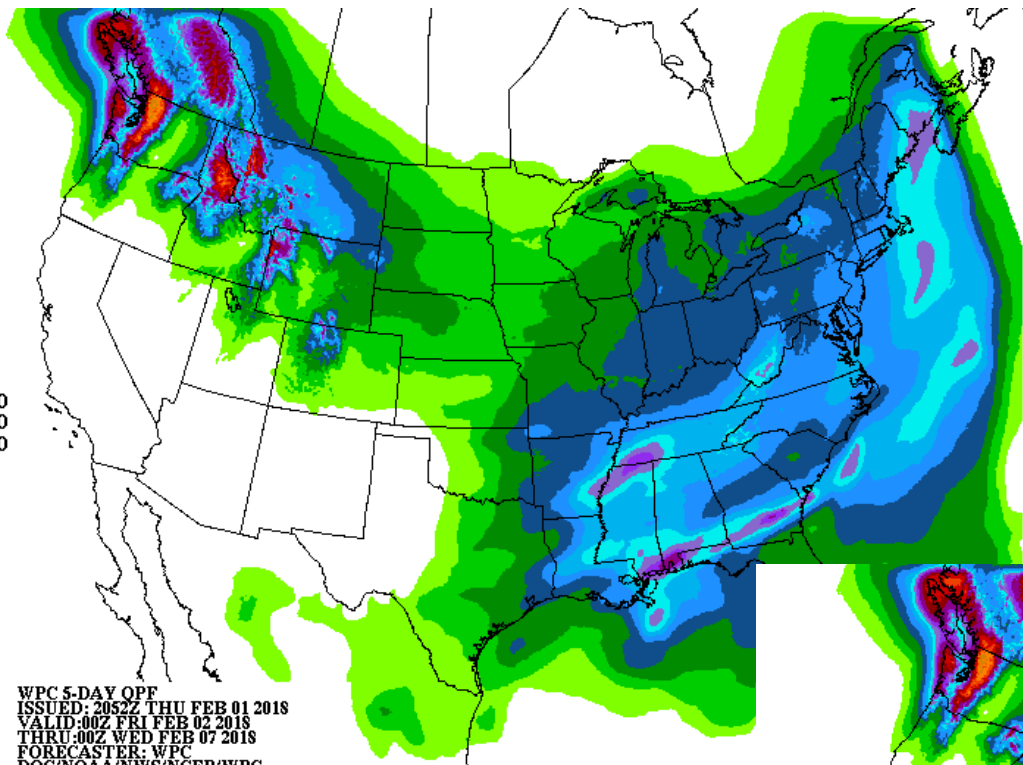


Generated 2/1/2018 at HPRCC using provisional data.

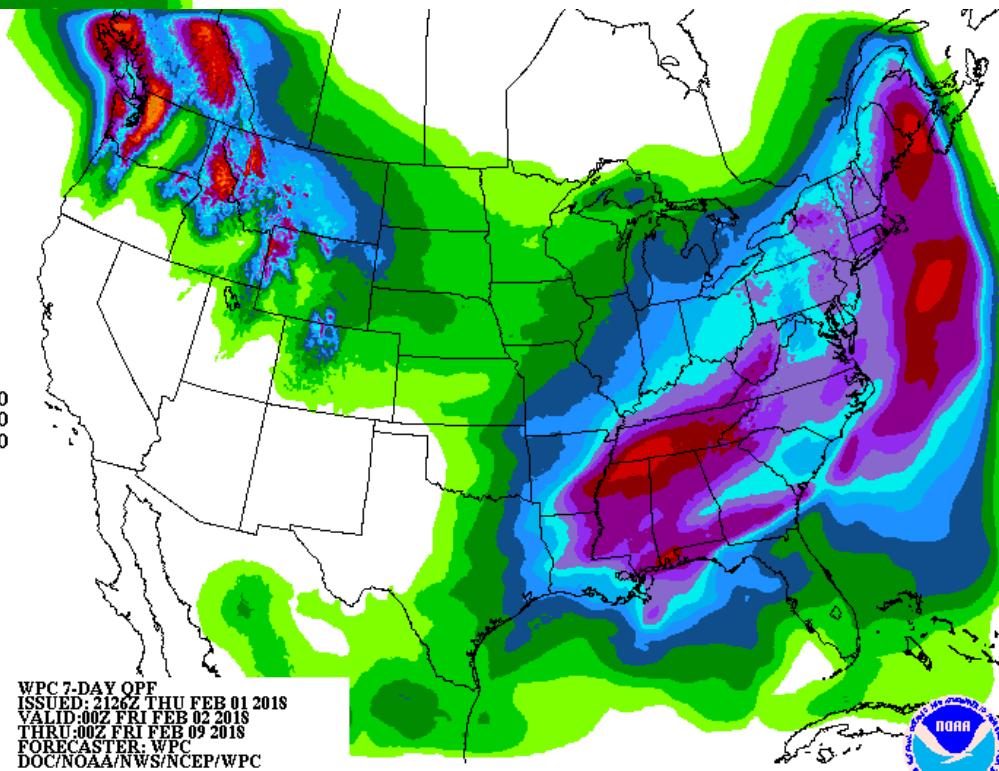
NOAA Regional Climate Centers

## PAST 14 DAYS TEMP ANOMALIES

# NWS OFFICIAL RAINFALL NEXT 5/7 DAYS



WPC 5-DAY OPF  
ISSUED: 2052Z THU FEB 01 2018  
VALID:00Z FRI FEB 02 2018  
THRU:00Z WED FEB 07 2018  
FORECASTER: WPC  
DOC/NOAA/NWS/NCEP/WPC



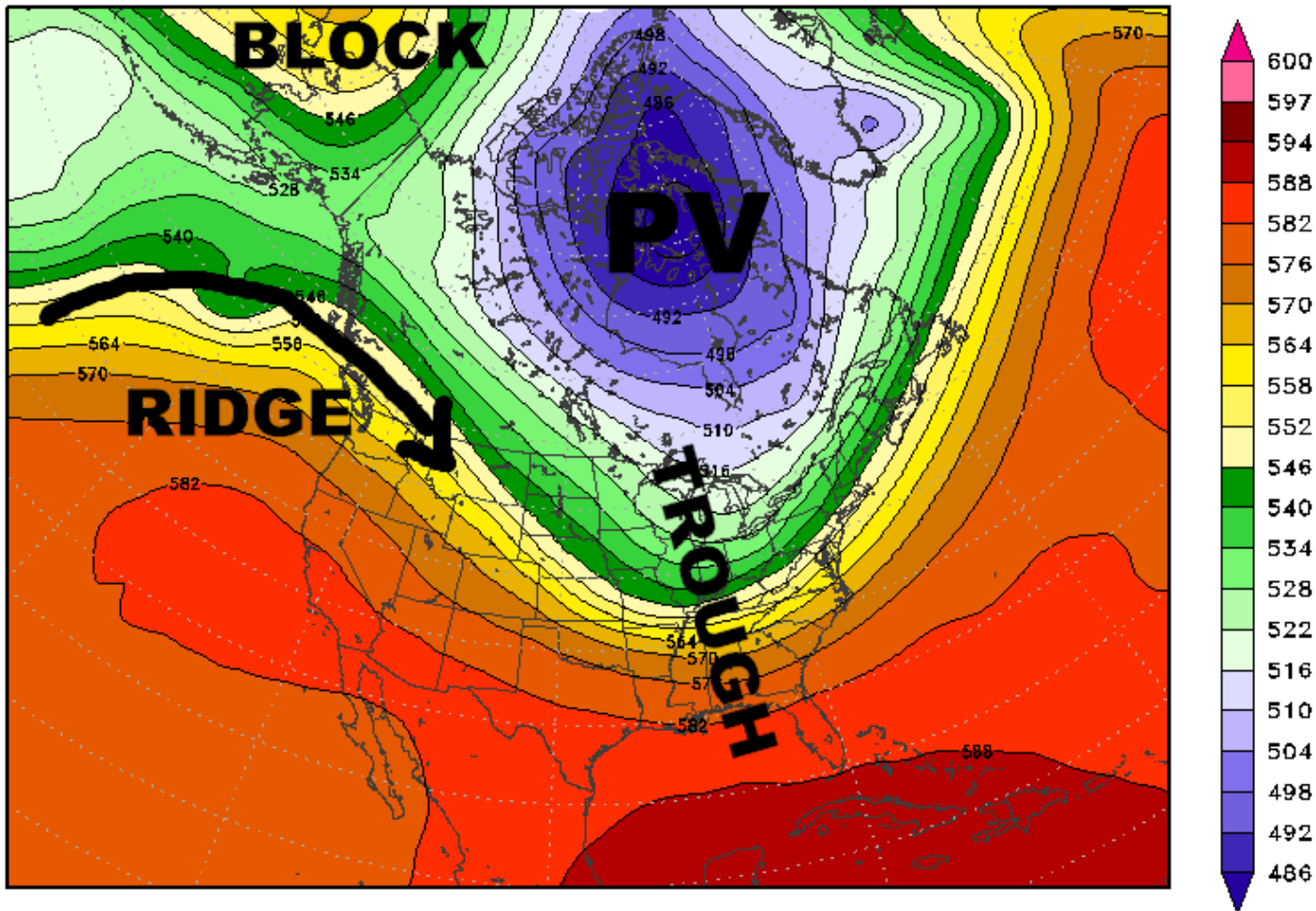
WPC 7-DAY OPF  
ISSUED: 2126Z THU FEB 01 2018  
VALID:00Z FRI FEB 02 2018  
THRU:00Z FRI FEB 09 2018  
FORECASTER: WPC  
DOC/NOAA/NWS/NCEP/WPC



# CURRENT UPPER AIR PATTERN.. MODERATE TROUGH IN THE MIDWEST BUT NOT REALLY BRINGING COLD AIR MASS

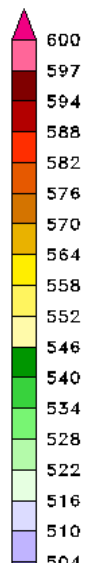
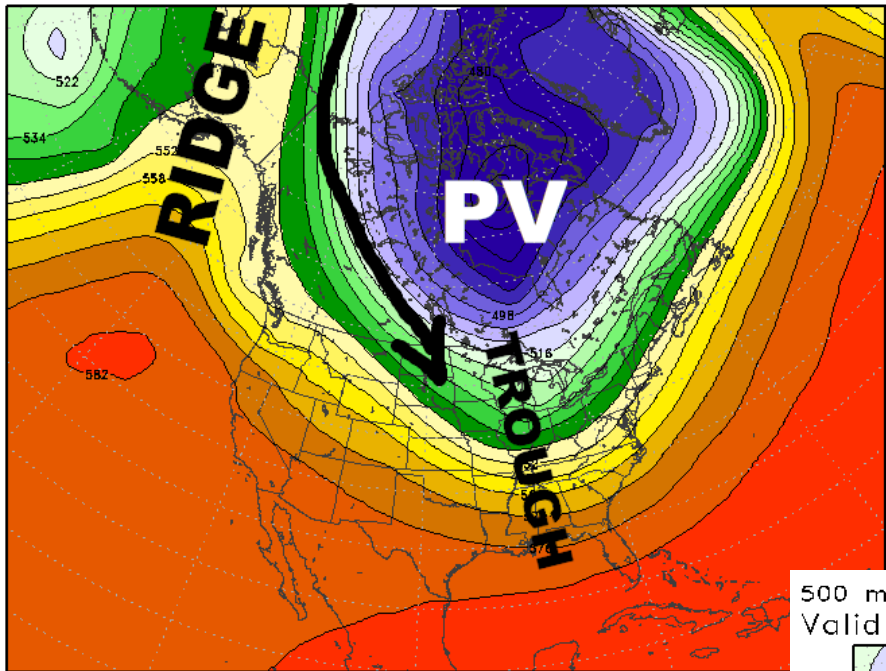
500 mb Height  
Valid: 03z Fri 02 Feb 2018

ECMWF  
Hour: 3



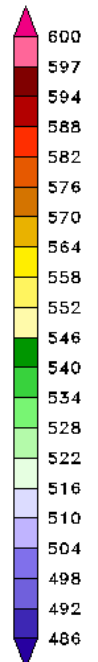
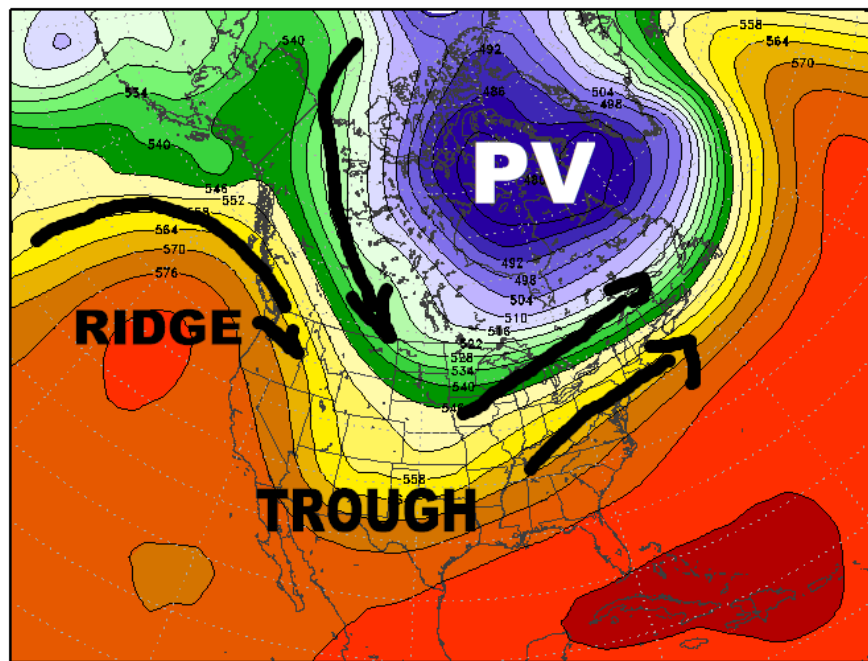
500 mb Height  
Valid: 00z Mon 05 Feb 2018

ECMWF  
Hour: 72



500 mb Height  
Valid: 00z Wed 07 Feb 2018

ECMWF  
Hour: 120



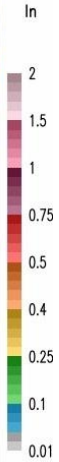
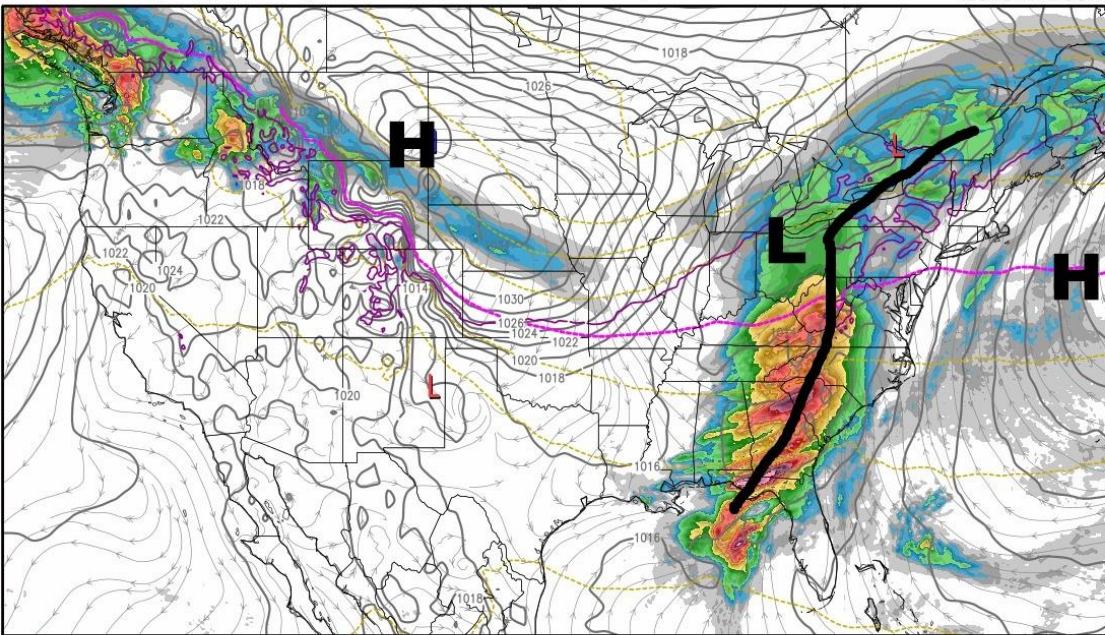
GrADS: COLA/IGES

StormVistaWxModels.com Init

GrADS: COLA/IGES

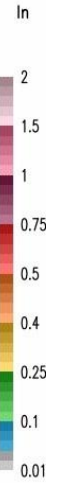
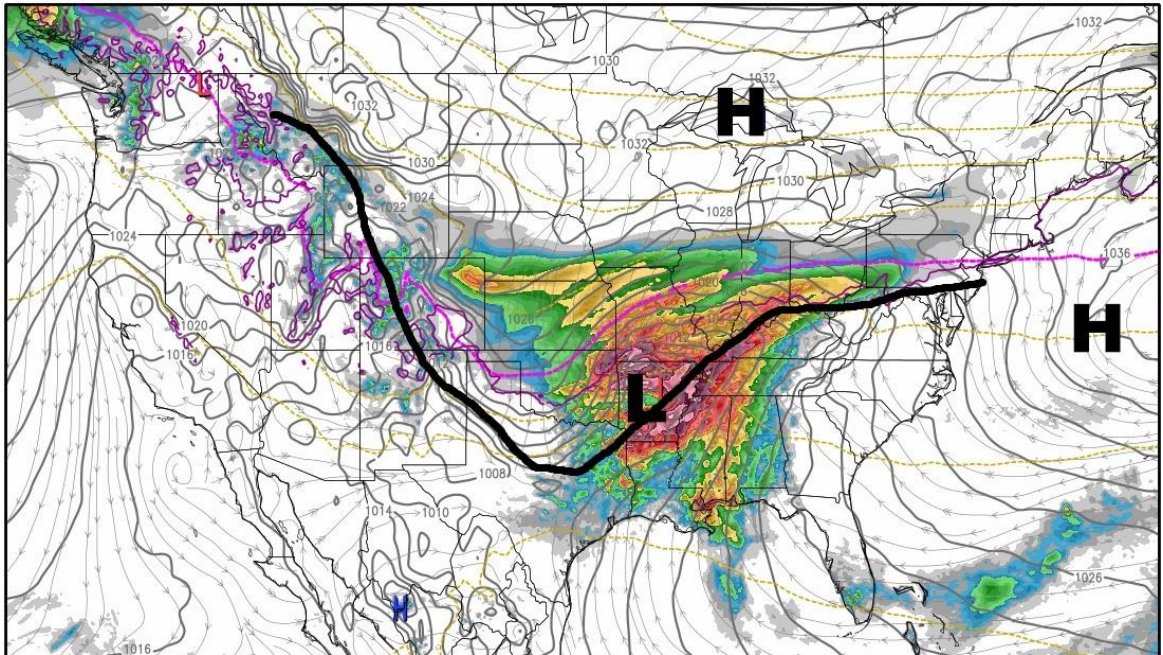
StormVistaWxModels.com

Init: 00z Fri 02 Feb 2018  
2018-02-02-01:20



ECMWF HRES MODEL RUN 00Z 02/02 66hr FORECAST C 2018 ECMWF

This service is based on data and products of the European C



ECMWF HRES MODEL RUN 00Z 02/02 120hr FORECAST C 2018 ECMWF

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

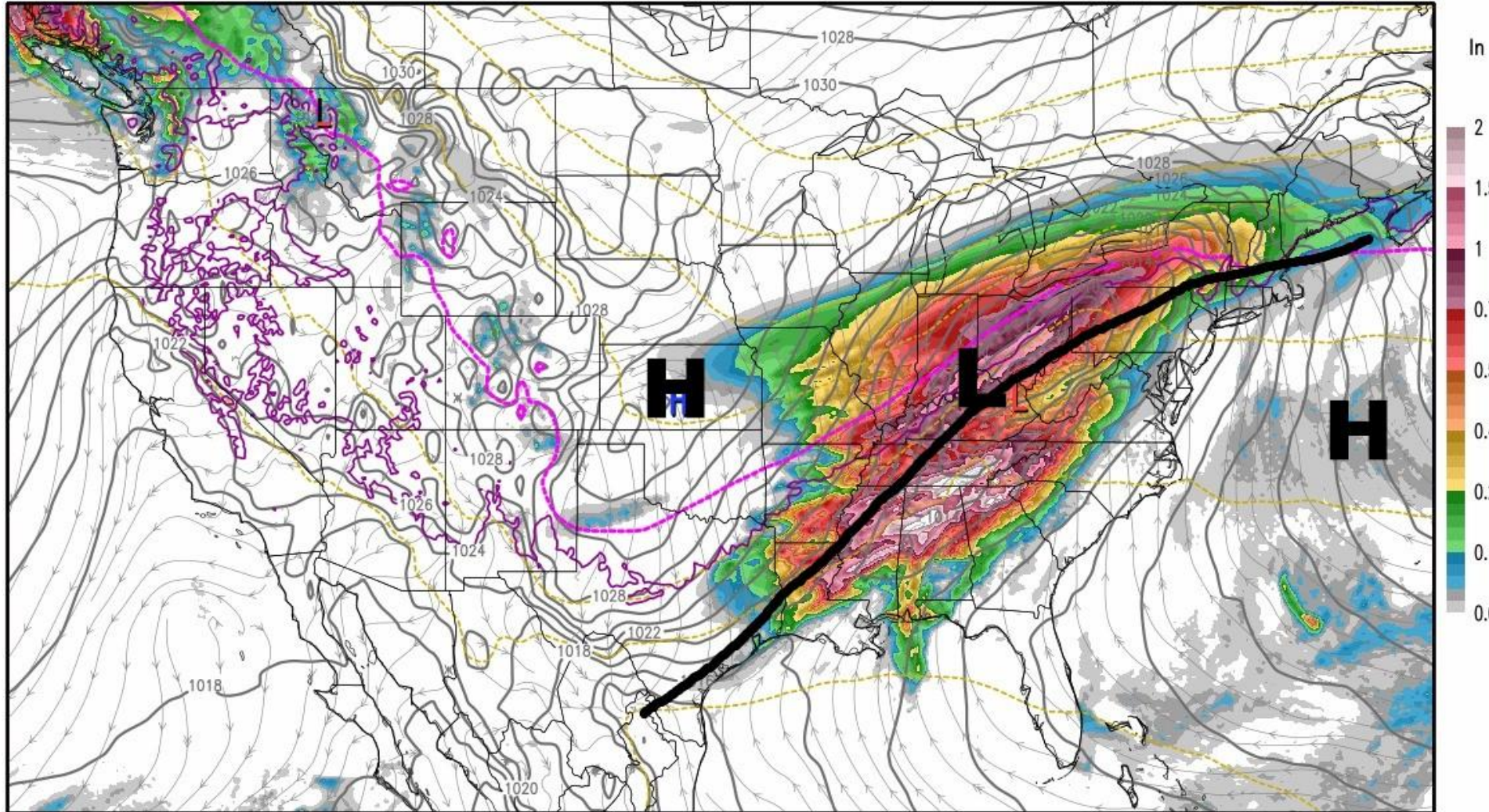
**BIG PRECIP  
EVENT FOR  
DEEP SOUTH  
INTO ECB /  
MO**

# BIG PRECIP EVENT FOR DEEP SOUTH INTO ECB / MO

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

Valid Wednesday 12Z 02/07

EuroWX.com



ECMWF HRES MODEL RUN 00Z 02/02 132hr FORECAST

© 2018 ECMWF

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

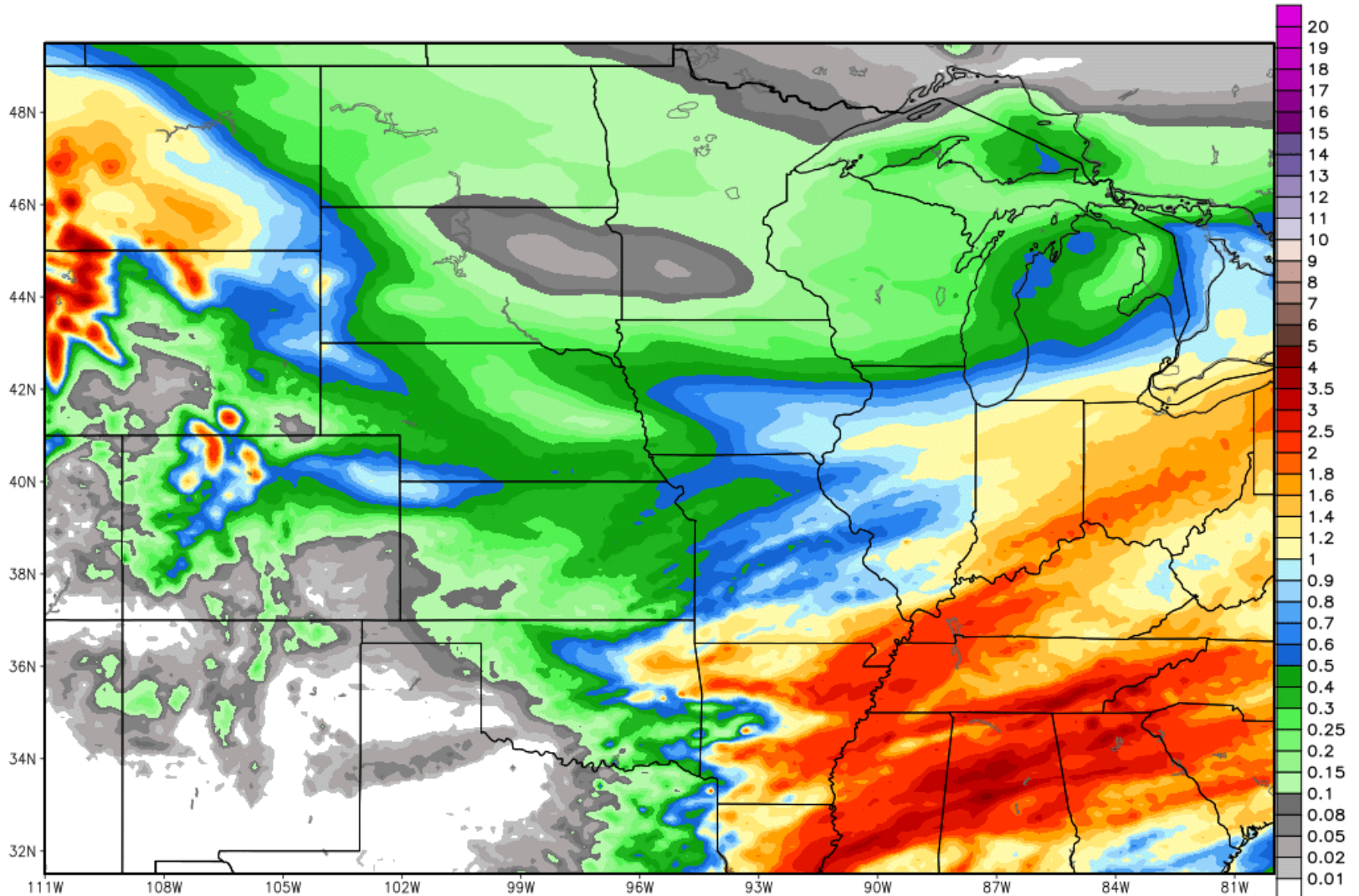


# PRECIP OVER NEXT 7D -- DARK GREEN OVER NEB

KS is only 0.50"/12mm    YELLOW= 1.0-1.75"/ 30-40mm

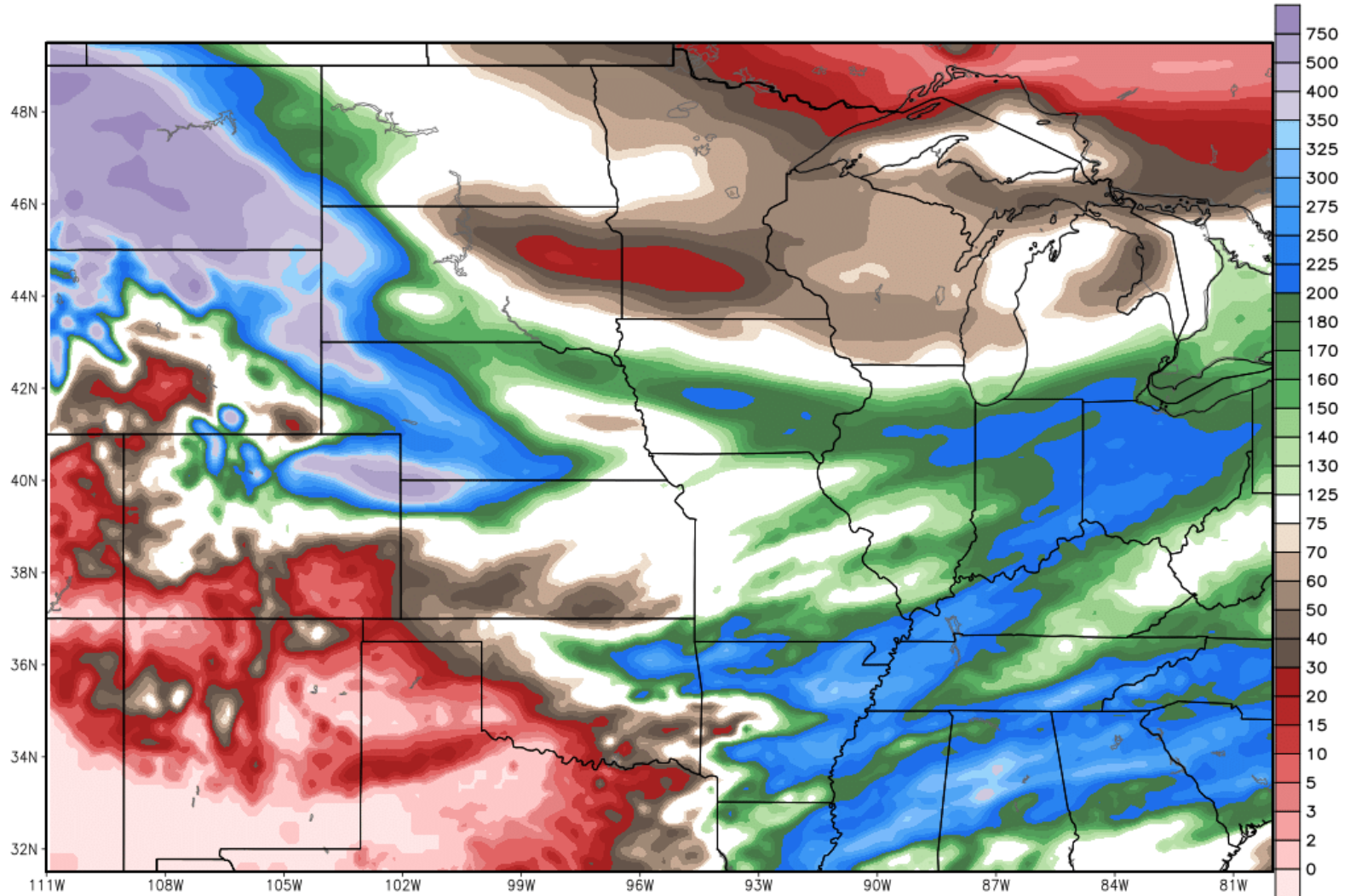
**RED- 3-4"/ 75-100mm**

ECMWF 7-day Precipitation [inch] INIT: 00Z02FEB2018 fx: [180] hr --> Fri 12Z09FEB2018  
Total Precipitation [inches] between 12Z02FEB2018 -- 12Z09FEB2018



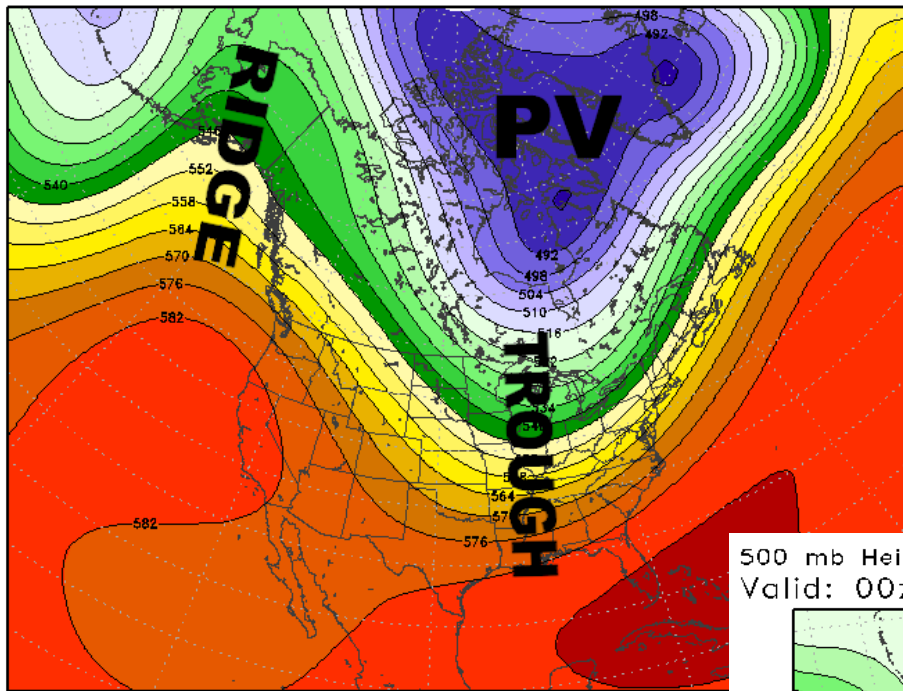
# PRECIP ANOMALIES NEXT 7D M 10% or less TX & se COL ...25-50% of Normal over western OK most of KS Good snows over eastern MT/ eastern WY/ west NEB

ECMWF 7-day Precip Anomaly [% of normal] between 12Z02FEB2018 -- 12Z09FEB2018  
INIT: 00Z02FEB2018 fx: [180] hr --> Fri 12Z09FEB2018



500 mb Height  
Valid: 06z Thu 08 Feb 2018

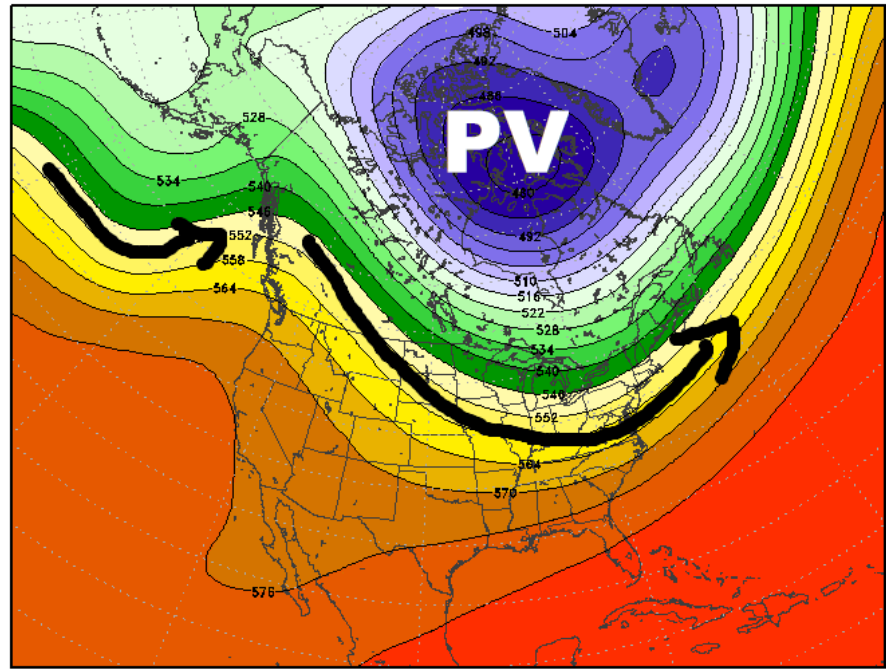
ECMWF-EP5  
Hour: 150



**STRONG RIDGE OVER  
WESTERN N.AMERICA  
BRINGS IS COLD AIR FOR A  
FEW DAYS BUT THEN  
RIDGE BREAKS DOWN  
AGAIN AS MORE PACIFIC  
FLOW TAKES OVER**

500 mb Height  
Valid: 00z Sun 11 Feb 2018

ECMWF-EP5  
Hour: 216



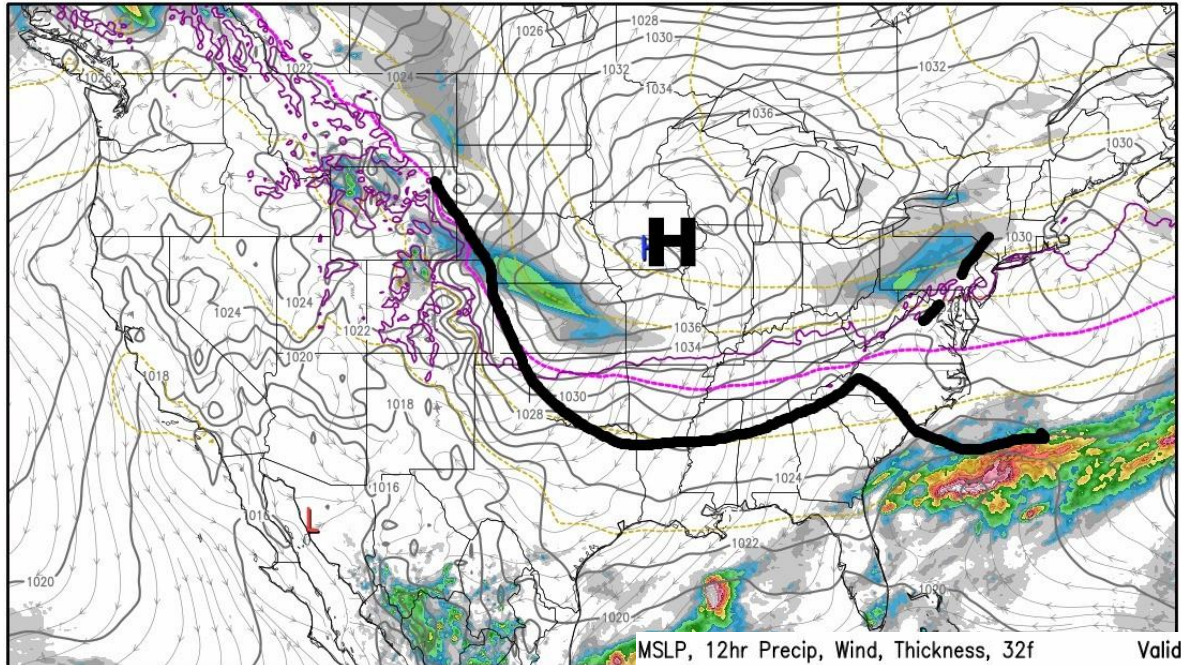
GrADS: COLA/IGES

StormVistaWxModels.com

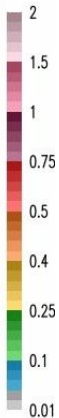
GrADS: COLA/IGES

StormVistaWxModels.com

Init: 00z Fri 02 Feb 2018  
2018-02-02-02:36



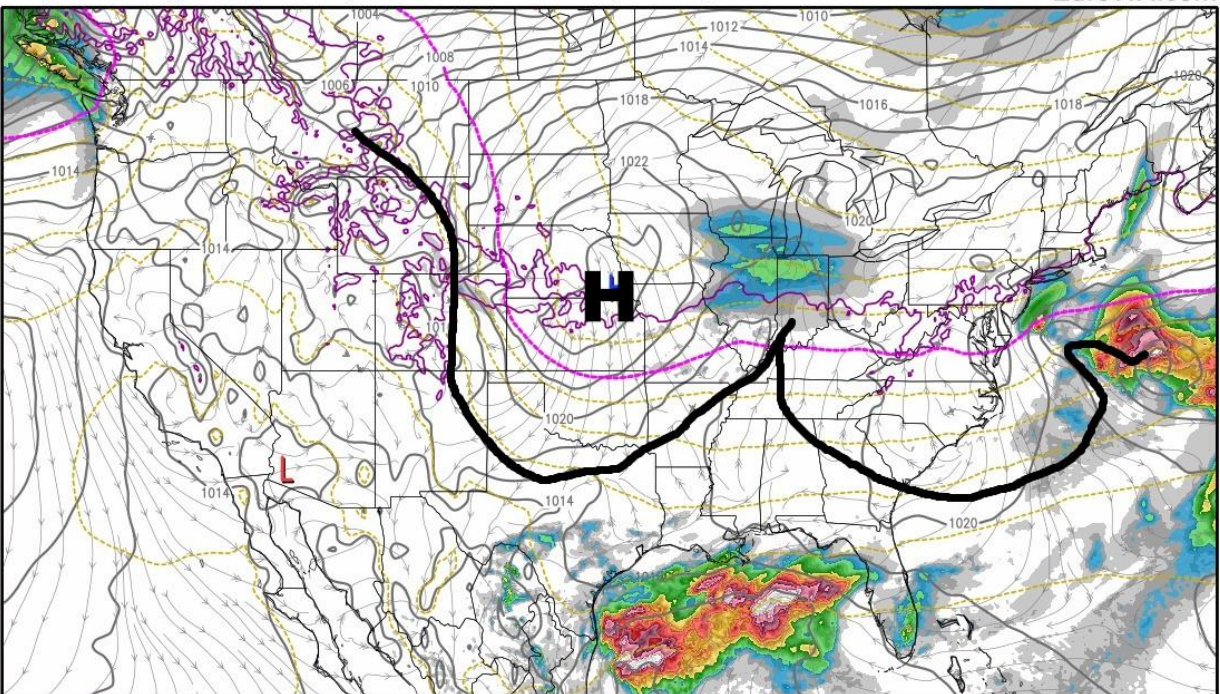
In



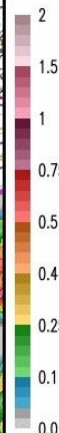
MSLP, 12hr Precip, Wind, Thickness, 32f

Valid Monday 00Z 02/12

ECMWF HRES MODEL RUN 00Z 02/02 192hr FORECAST  
This service is based on data and products of the European Center for Medium-range Weather Forecasts.



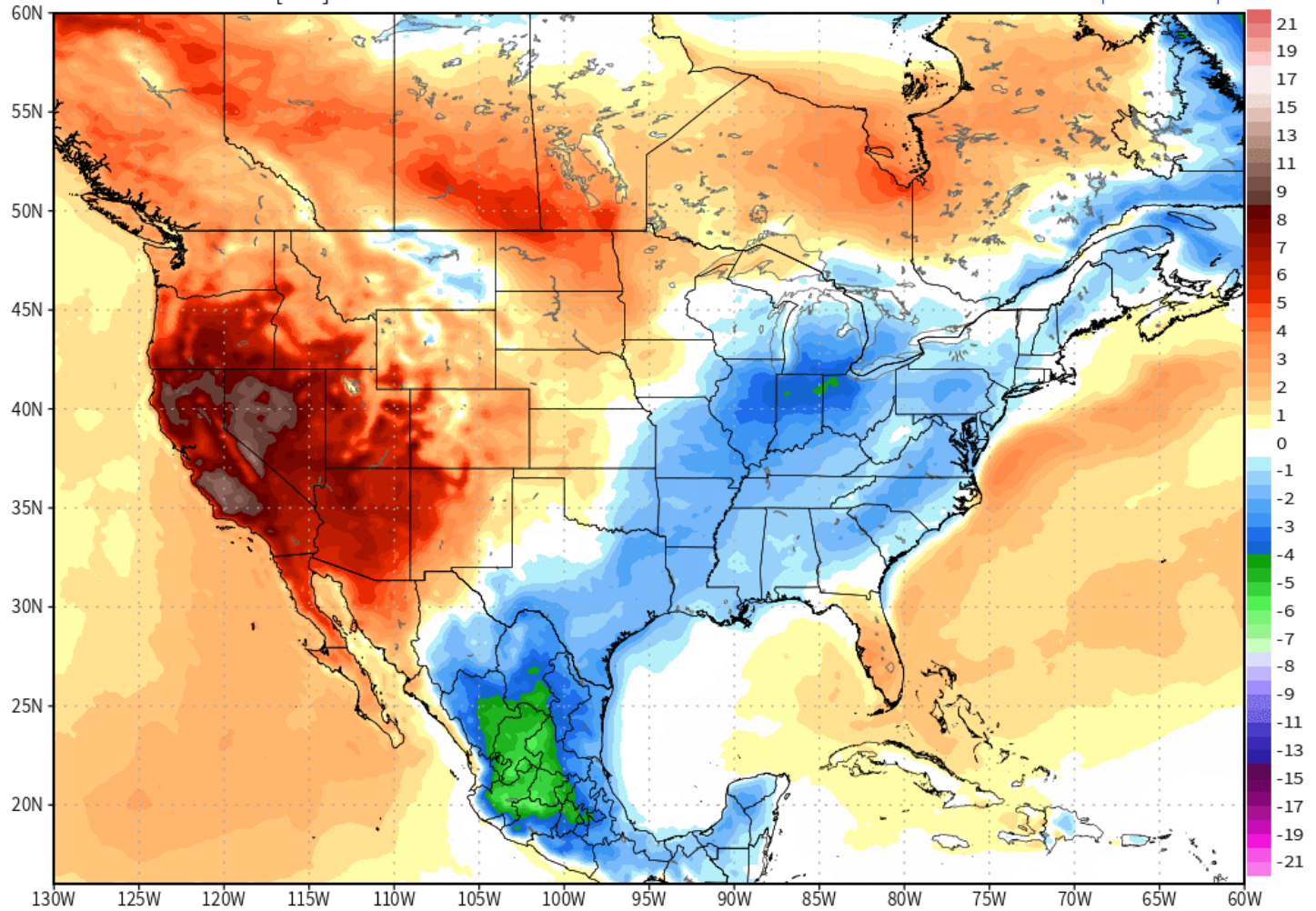
In



ECMWF HRES MODEL RUN 00Z 02/02 240hr FORECAST

ECMWF EPS 2-meter Temperature Anomaly [°C] | Ensemble Mean | 1998-2017 M-Climatology  
Init: 00Z01FEB2018 -- [240] hr --> Valid Sun 00Z11FEB2018

AREAL AVG: 1.2°C  
MIN|MAX -6.2° | 11.9°C

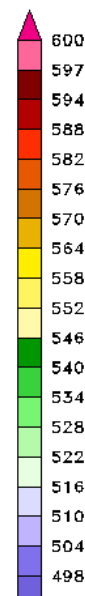
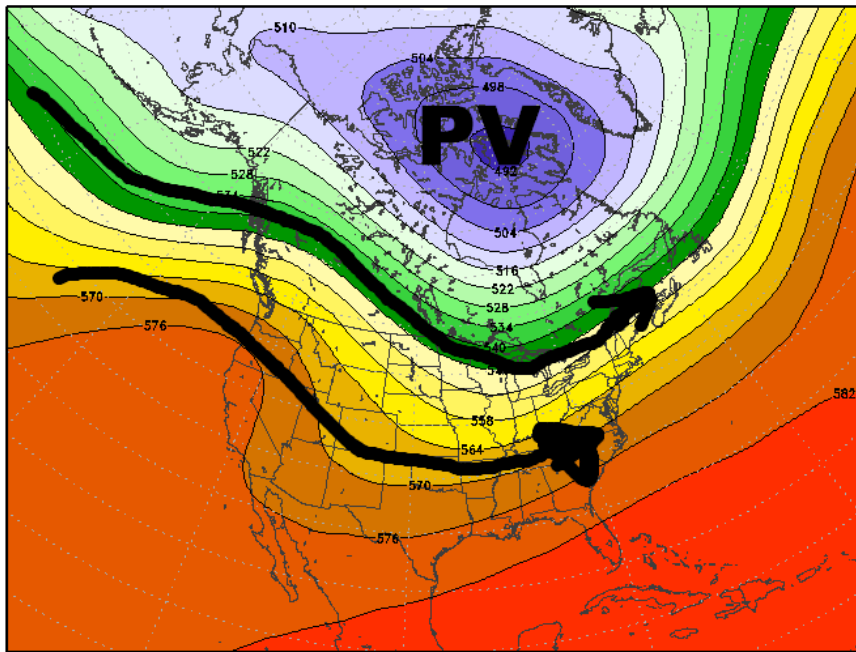


This service is based on data and products of the European Centre for Medium-range Weather Forecasts (ECMWF) [weathermodels.com](http://weathermodels.com) | @RyanMaue

500 mb Height  
Valid: 00z Wed 14 Feb 2018

ECMWF-EP5  
Hour: 288

**STRONG PACIFIC FLOW  
TAKES OVER... POLAR  
VORTEX WEAKENS ... NOT  
SUPER MILD BUT NOT  
COLD**



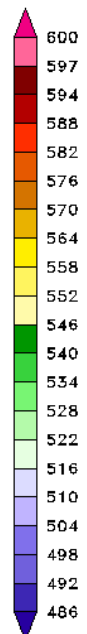
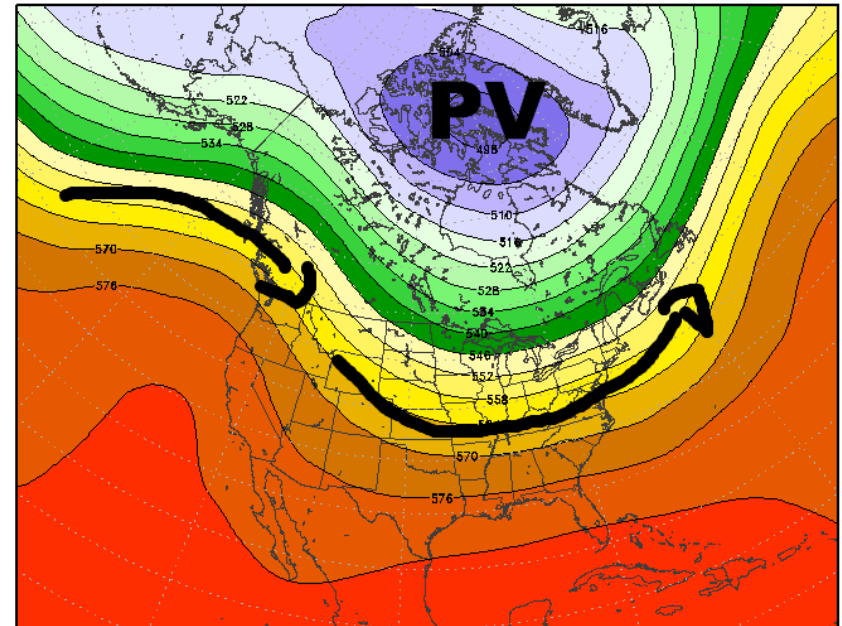
500 mb Height  
Valid: 06z Fri 16 Feb 2018

ECMWF-EP5  
Hour: 342

GRADS: COLA/IGES

StormVistaWxModels.com

Init: 00z Fri 0  
2018-



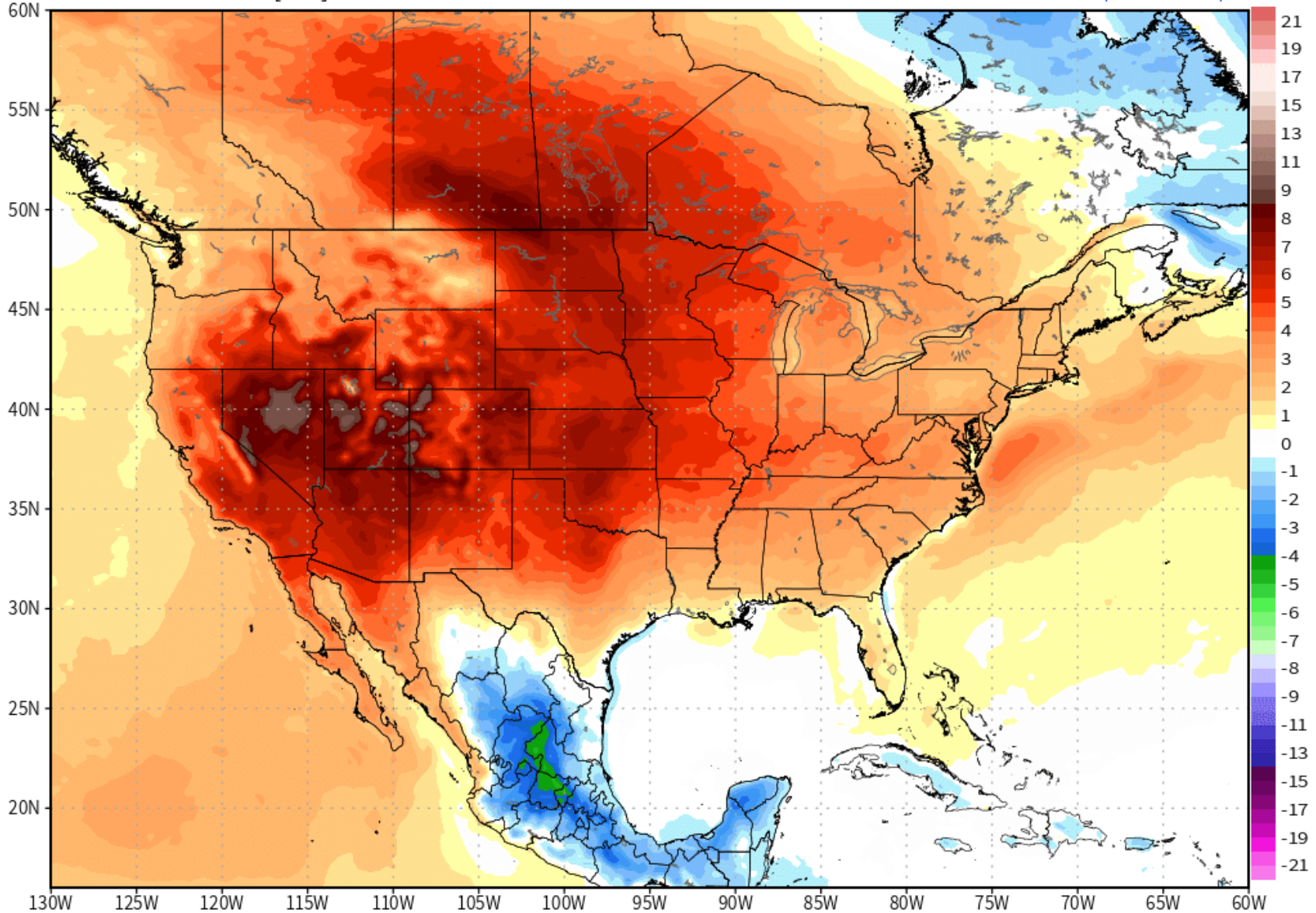
GRADS: COLA/IGES

StormVistaWxModels.com

Init: 00z Fri 02 Feb 2018  
2018-02-02-02:57

ECMWF EPS 2-meter Temperature Anomaly [°C] | Ensemble Mean | 1998-2017 M-Climate  
Init: 00Z01FEB2018 -- [360] hr --> Valid Fri 00Z16FEB2018

AREAL AVG: 2.2°C  
MIN|MAX -4.8° | 10.4°C

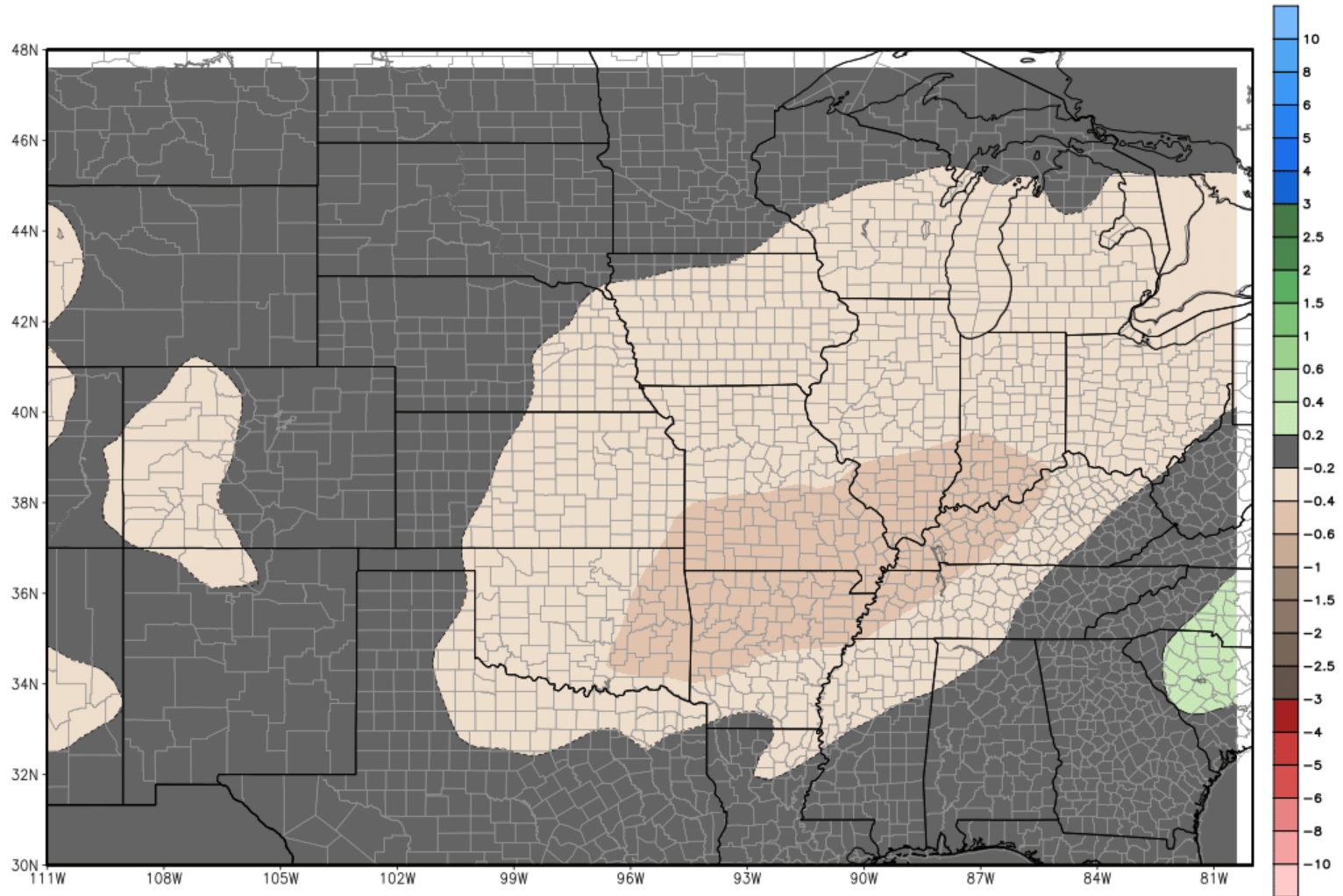


# WEEK 2 PRECIP ANOMALIES

ECMWF EPS Ensemble Mean 7-day Avg Precipitation Anomaly [inch]

Init: 00Z01FEB2018 -- [336] hr --> Valid on Thu 00Z15FEB2018 Day 7 - Day 14

Min|Max Anom: -0.7 | 0.4 inch

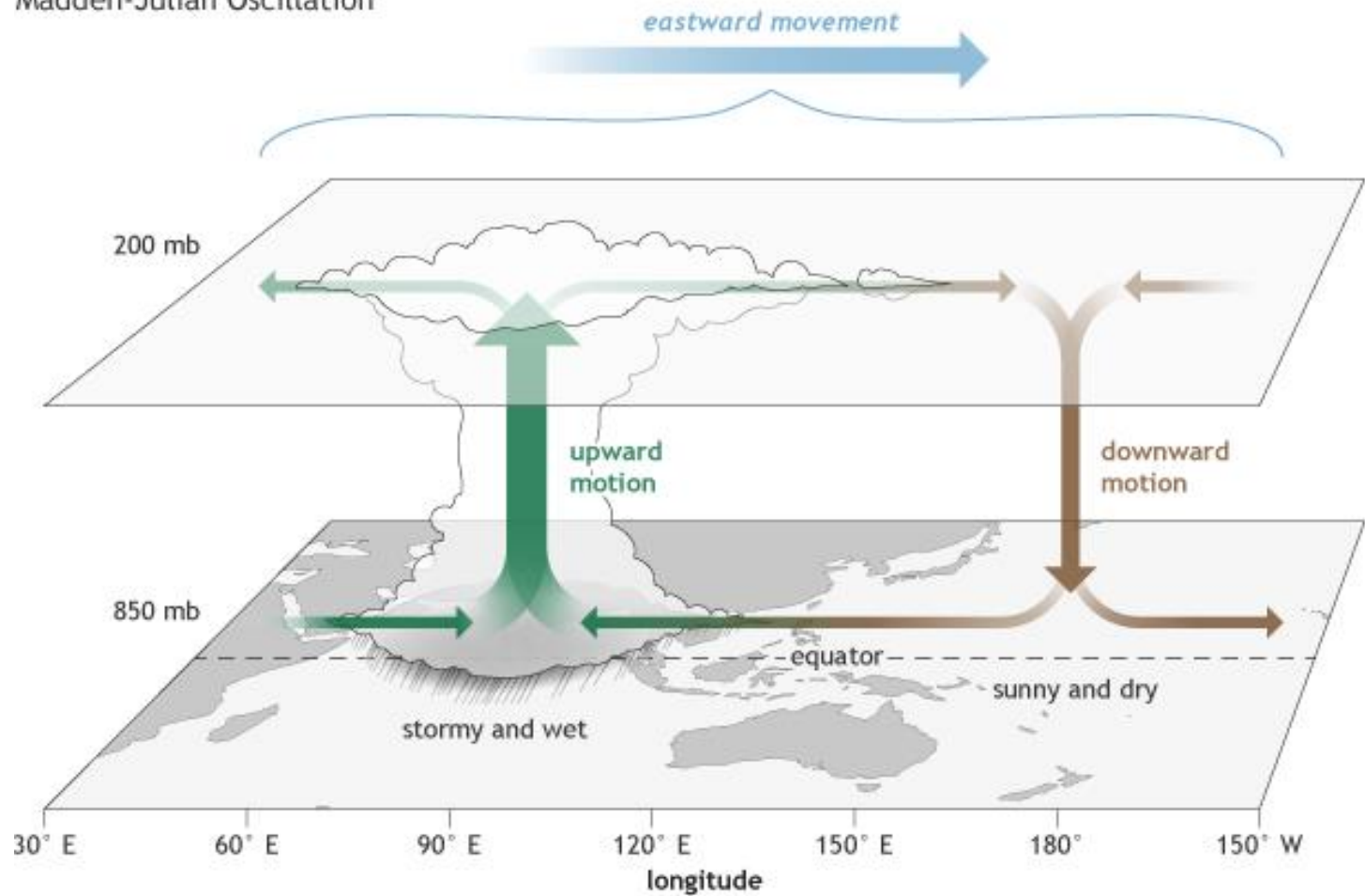


Accumulation between 00Z08FEB2018-00Z15FEB2018 | ECMWF EPS 1997-2016 Hindcast Climatology

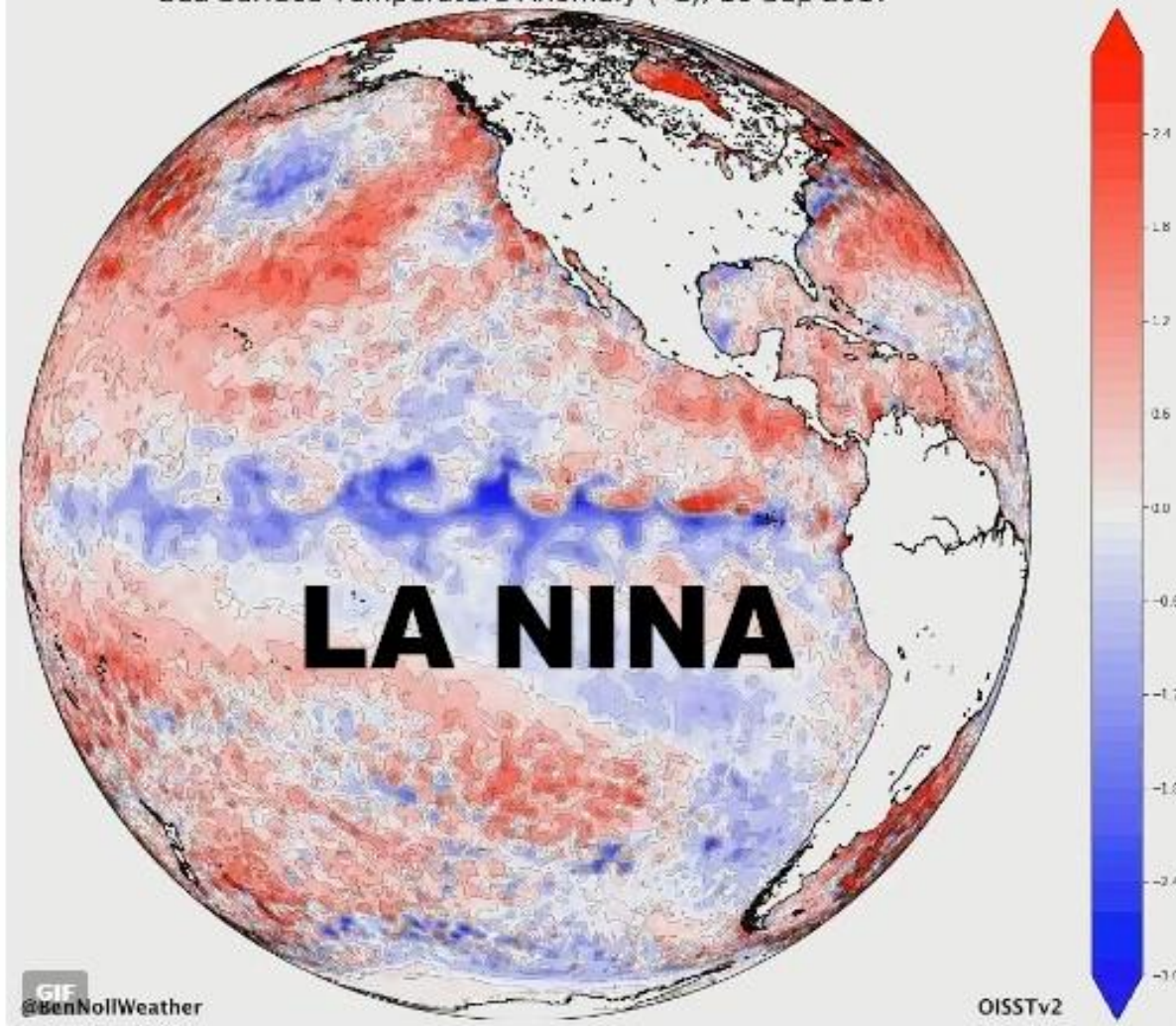


# LETS TALK MJO/ENSO

Madden-Julian Oscillation

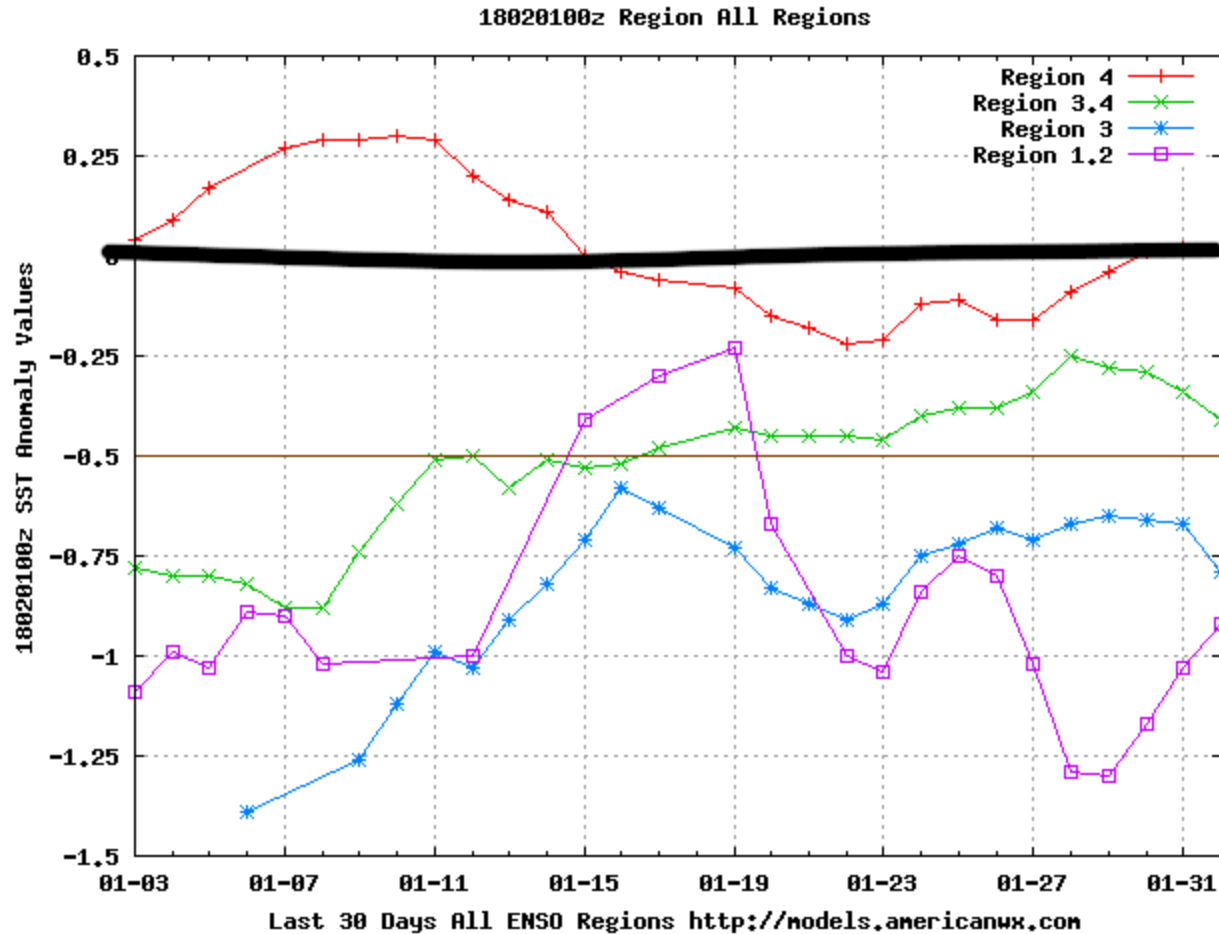


Sea Surface Temperature Anomaly (°C), 10 Sep 2017



6:29 AM - 13 Sep 2017

# ACTUAL SEA SURFACE TEMP ANOMALIES – of all 4 regions.. Is LA NINA weakening ?



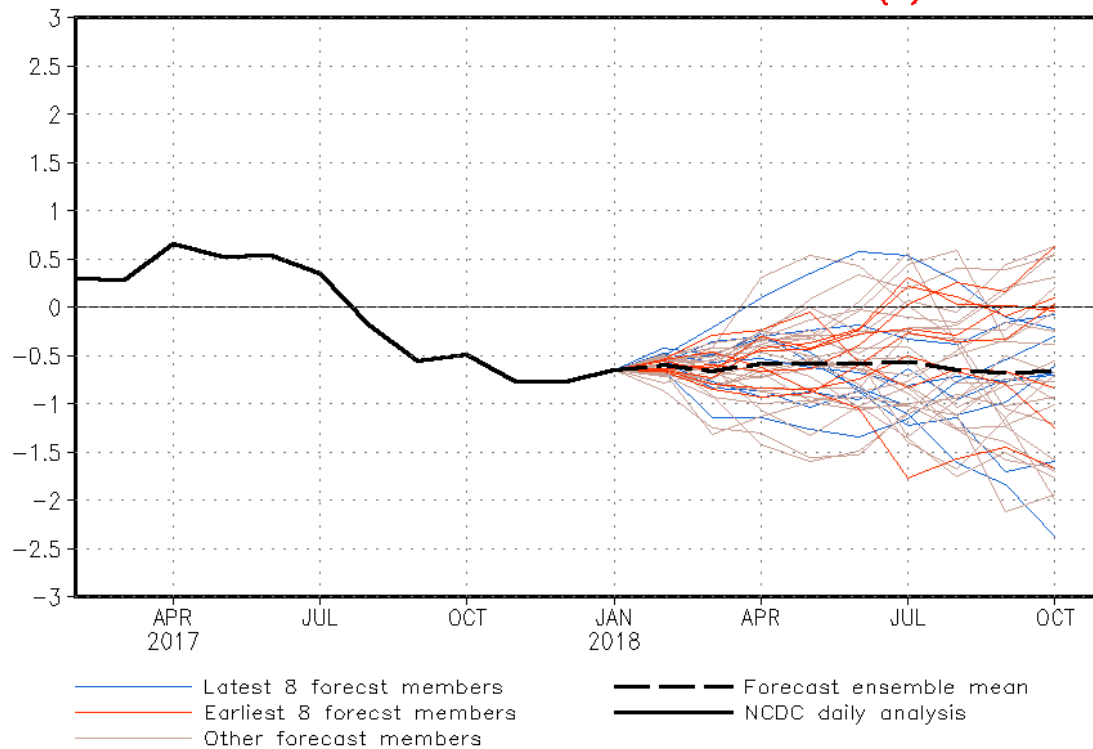
# LATEST CFS MODEL PROJECTION = \*\* La Nina NEVER reaches threshold for MODERATE but stays weak into APRIL... Prolonging dry pattern into at least part of SPRING 2018



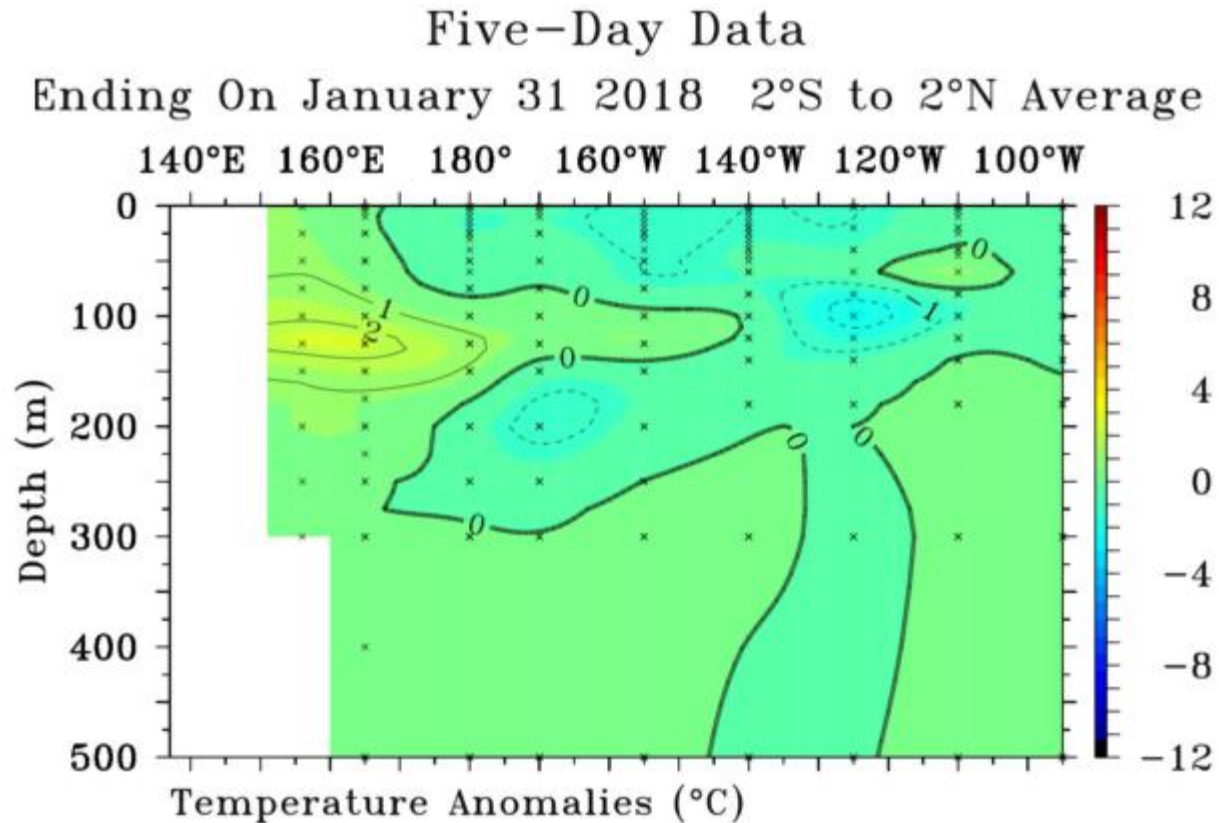
NWS/NCEP/CPC

Last update: Thu Feb 1 2018  
Initial conditions: 2Jan2018-11Jan2018

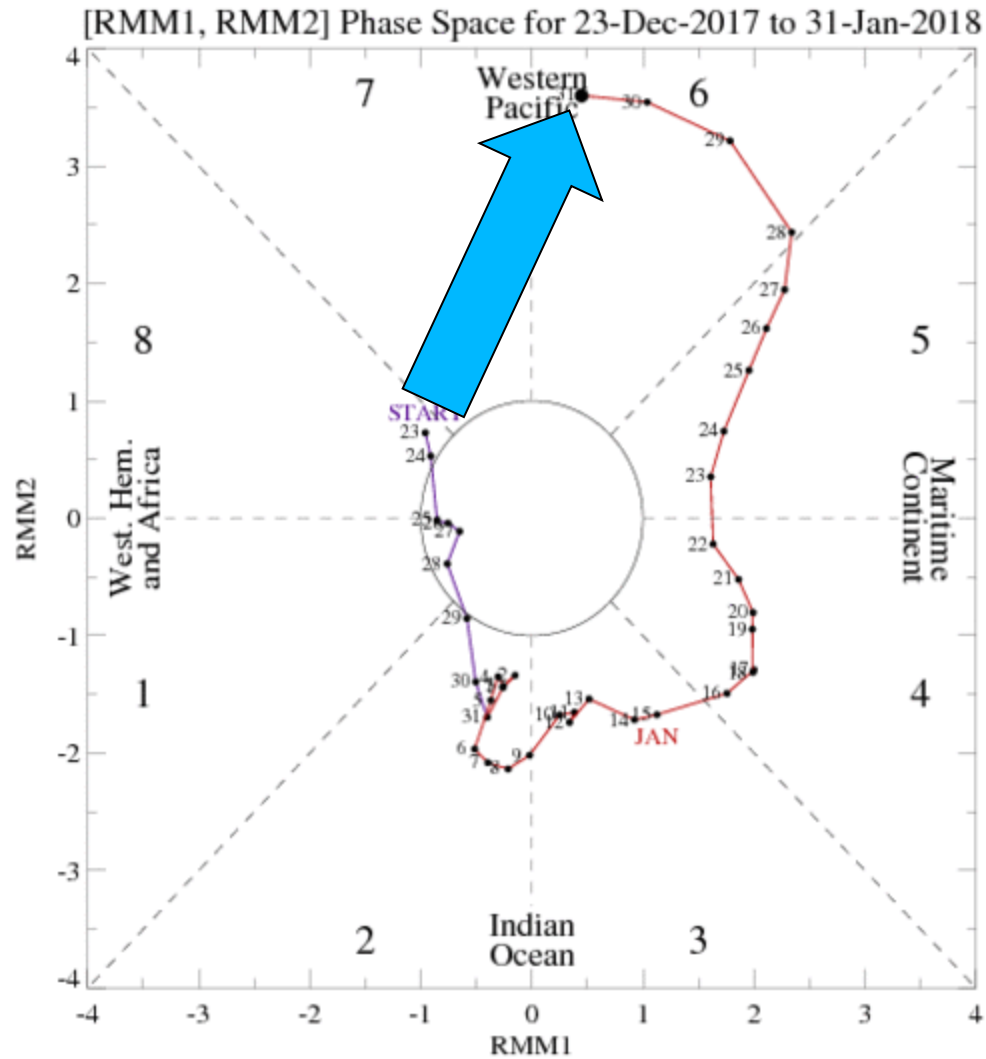
CFSv2 forecast Nino3.4 SST anomalies (K)



# LOOKING BENEATH THE SURFACE ALONG EQUATORIAL PACIFIC ...WEAK LA NINA HOLDING ON



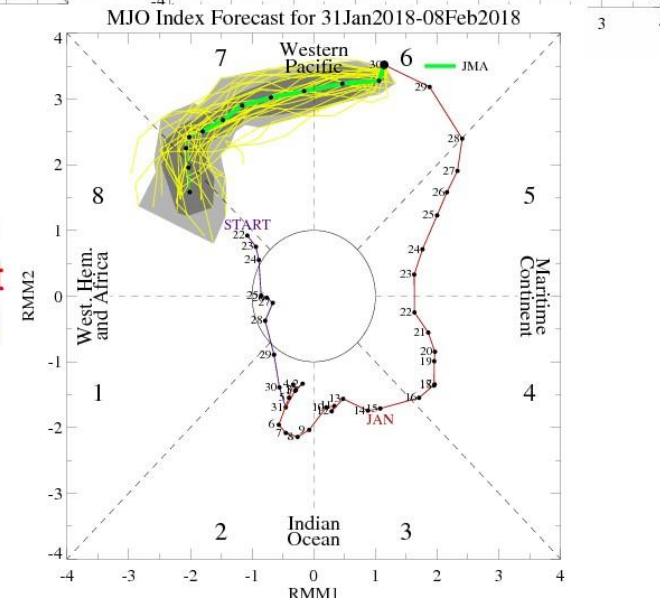
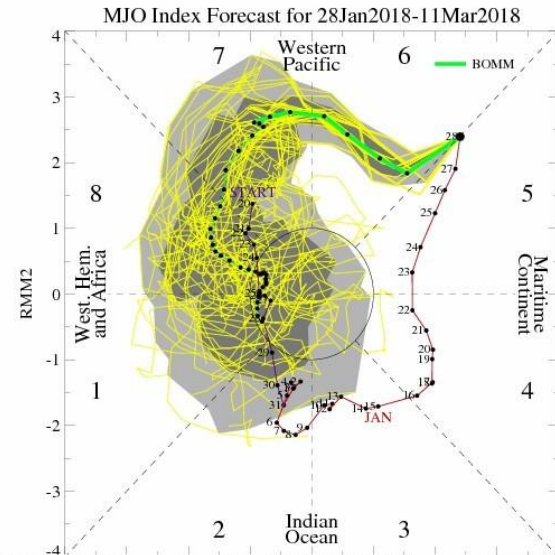
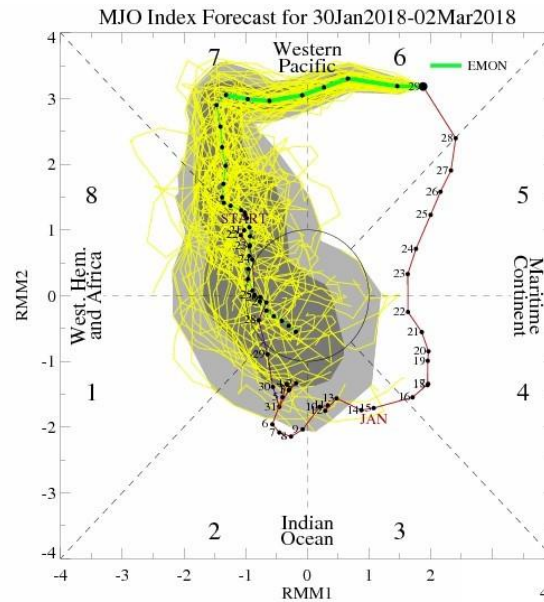
# MJO IS IN PHASE 6



**A FEW DAYS AGO THE MJO MODELS HAD 'TURNED' and SHOWED MJO WOULD BREAK DOWN IN PHASE 8... AND WOULD NOT MAKE IT TO PHaSE 1-2...**

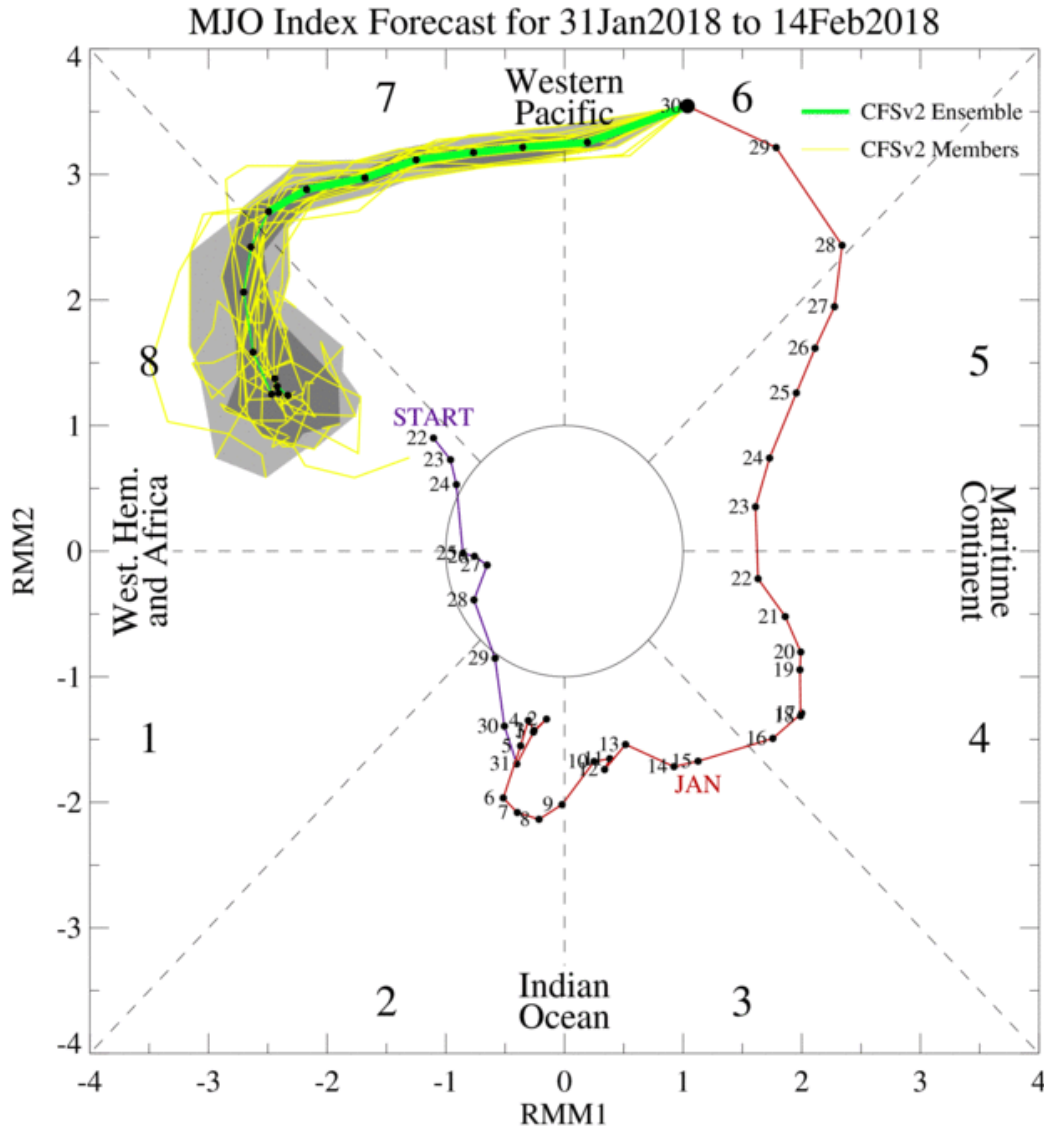
**For CONUS - phase 8-1-2 = dry cold for / Midwest Plains so if this MJO breaks downs it would imply more rain for Plains.**

**For S. America this would mean more Rain for ARG less rain for Brazil**



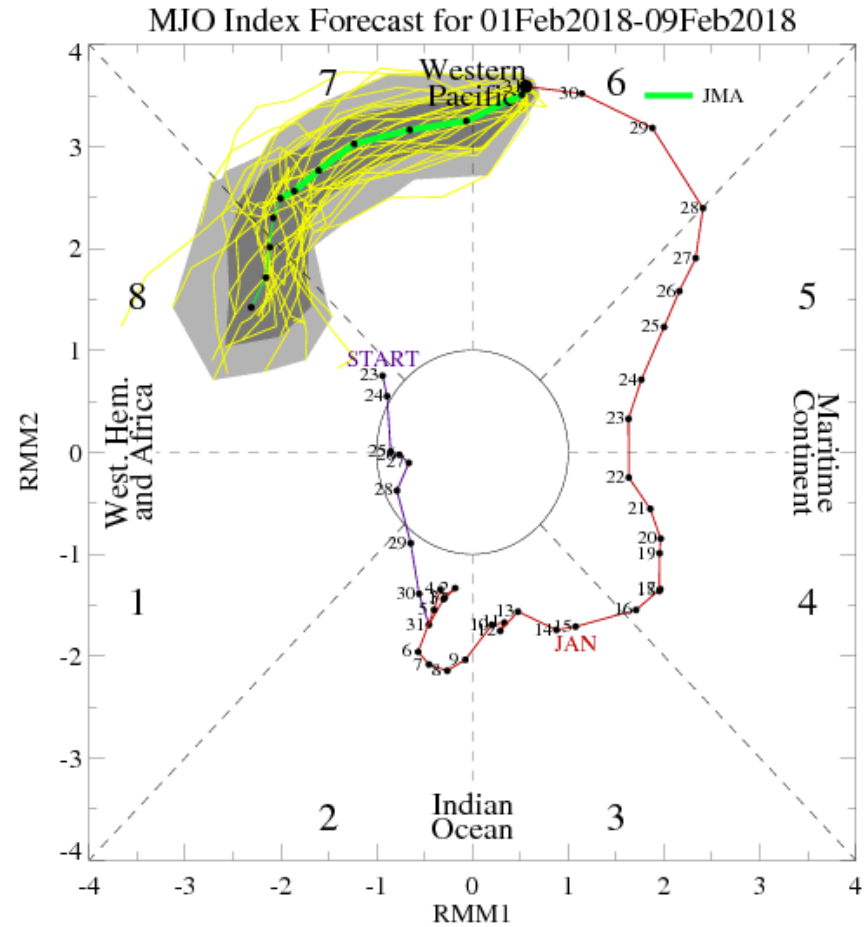
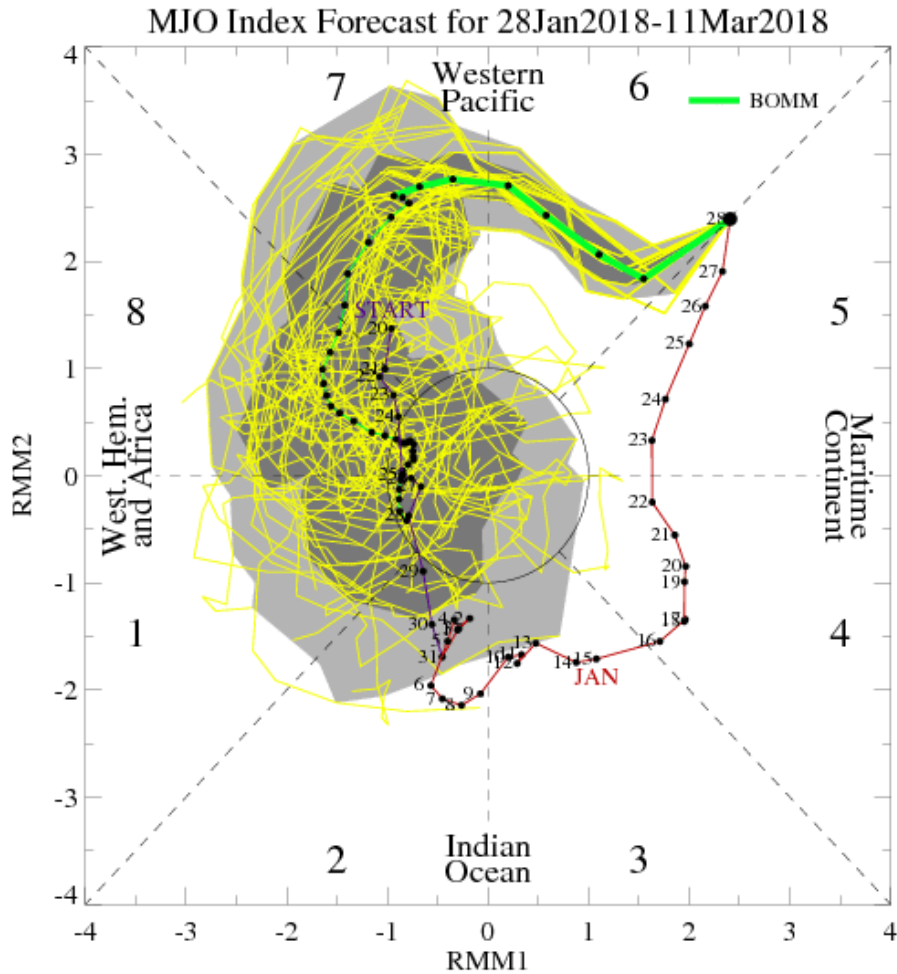
**What is "NEW" here is that these MJO forecasts take the very strong MJO then suddenly weaken in it with a massive fall off as it reaches Phase 8... Note how the MJO towards sharply towards Neutral Circle in Mid or late FEB**

# New data may be reversing that trend CFMJO forecast says hell yeah strong Phase 8 BY Mid Feb

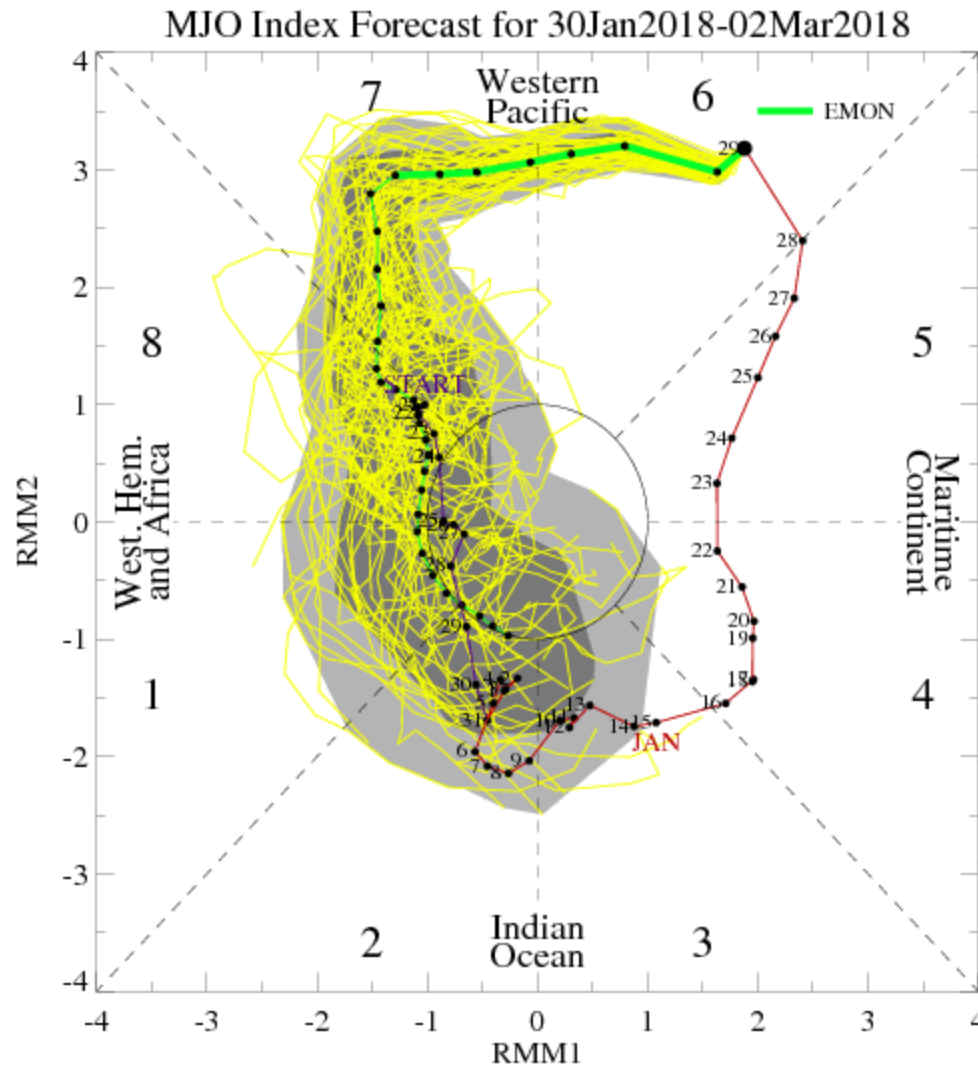




# New AUS and JAPAN MJO forecast MJO tracks also ..hell yeah strong phase 8 ... Phase 1 still uncertain



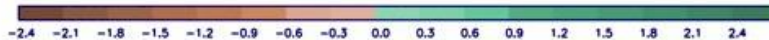
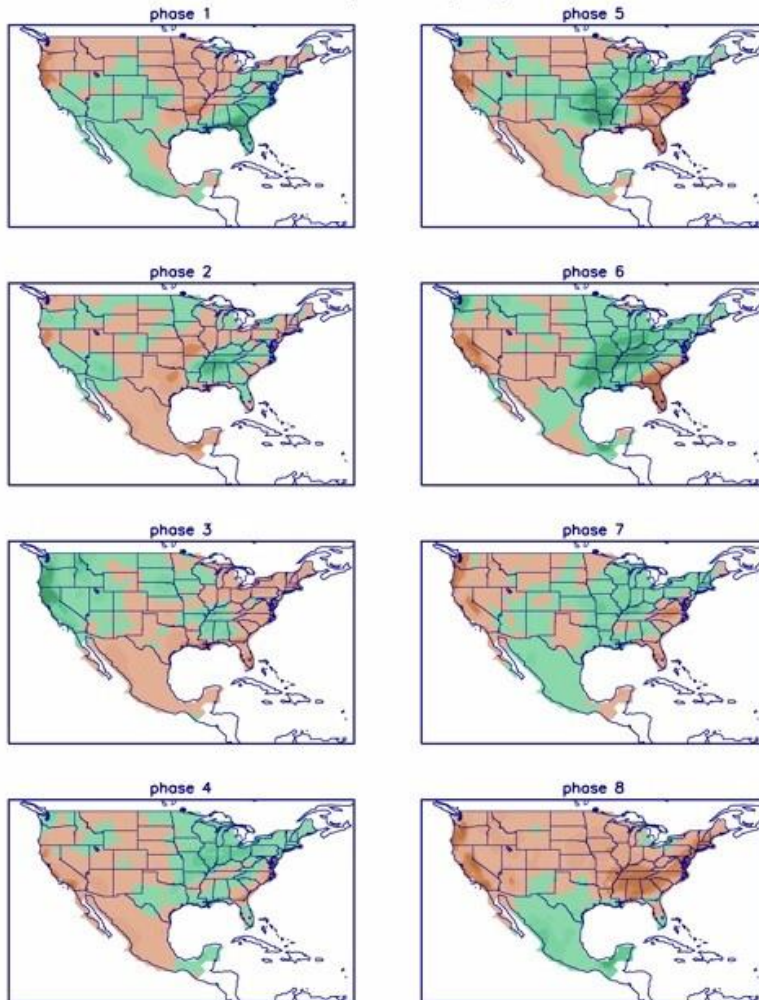
for some reason **NEW EURO** models have **NOT** updated in 3 days !! Its driving me nuts



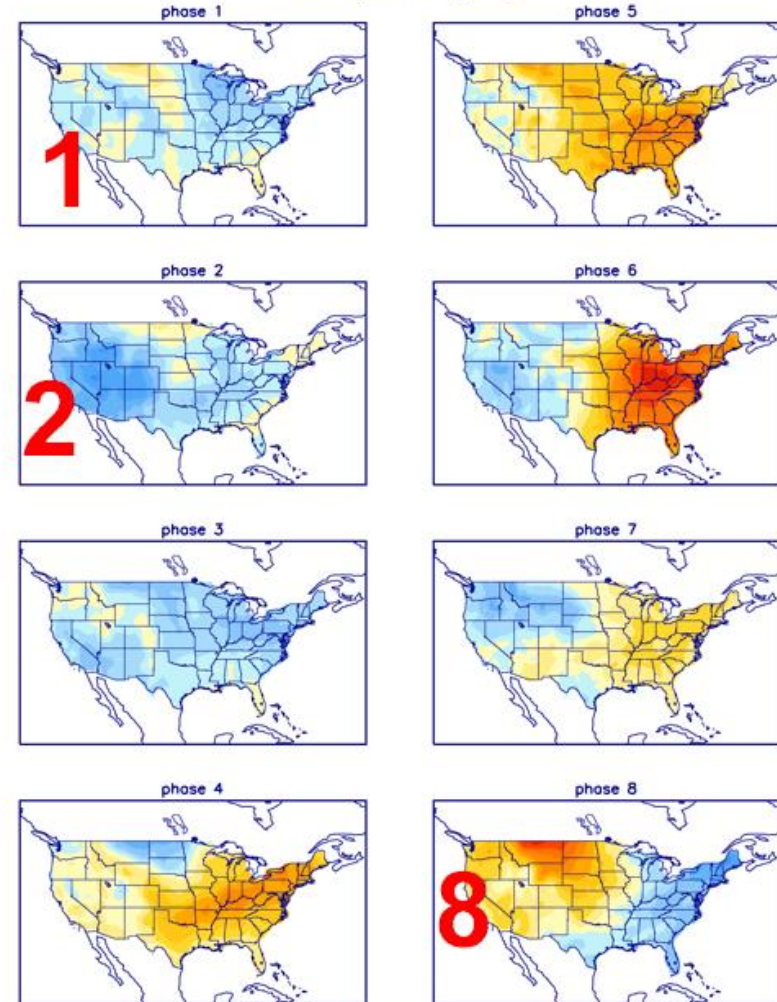
# IN FEB PHASE 8 2 1 DRY OVER PLAINS MIDWEST WET OVER EAST PHASE 1-2

# FEBRUARY

P composites (JFM)

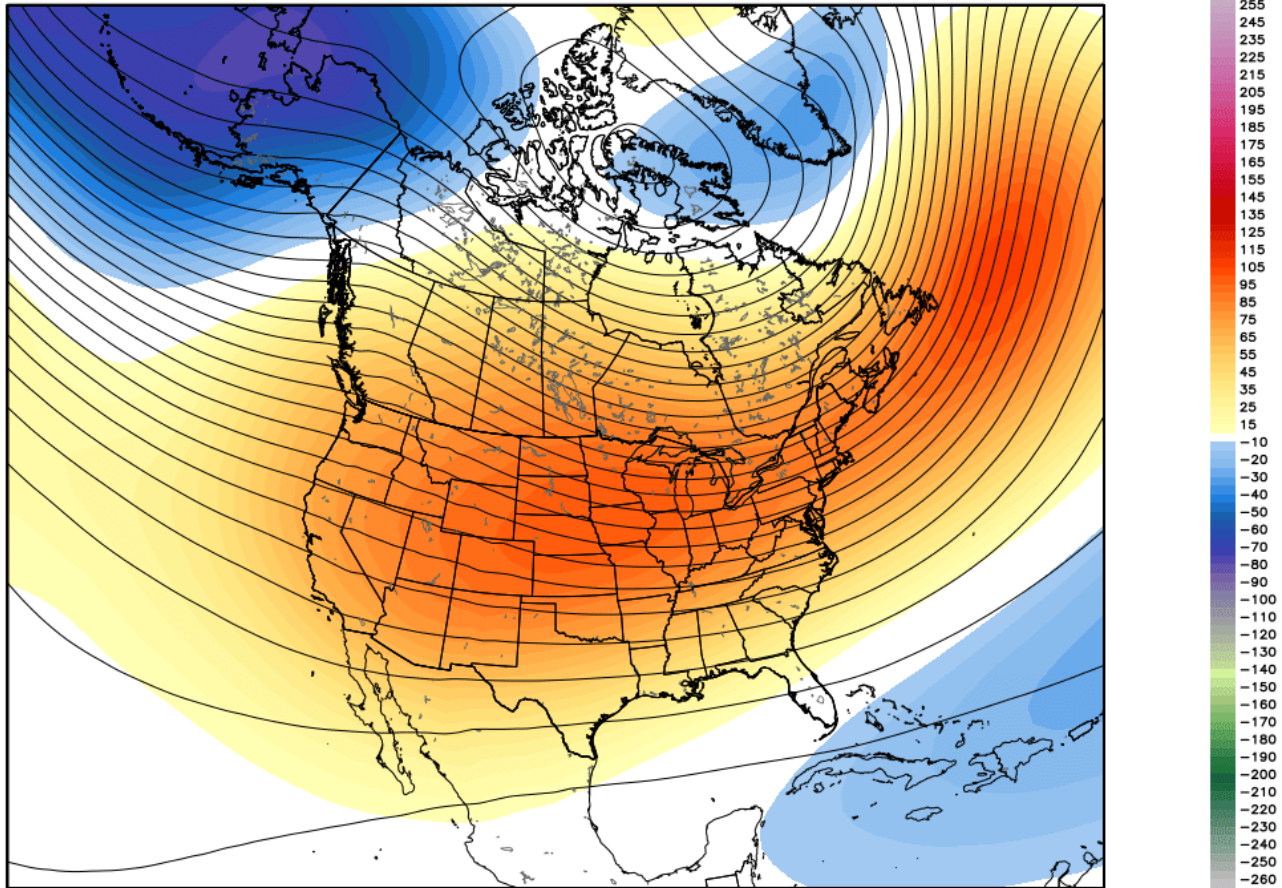


T composites (JFM)

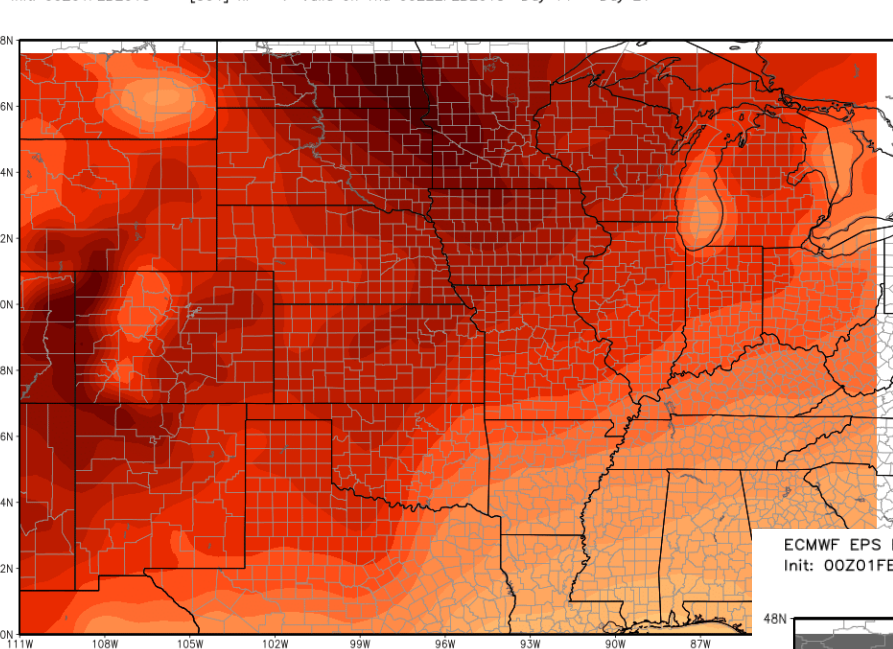


# Euro WEEK 3 .... Strong pacific Jet stream west to east MILD pattern

ECMWF EPS Ensemble Mean 7-day Avg 500 hPa Geopotential Height Anomaly [m] Min|Max: -78.8 | 107.9 m  
Init: 00Z01FEB2018 -- [504] hr --> Valid on Thu 00Z22FEB2018 Day 14 - Day 21



Average between 00Z15FEB2018-00Z22FEB2018 | ECMWF EPS 1996-2015 Hindcast Climatology



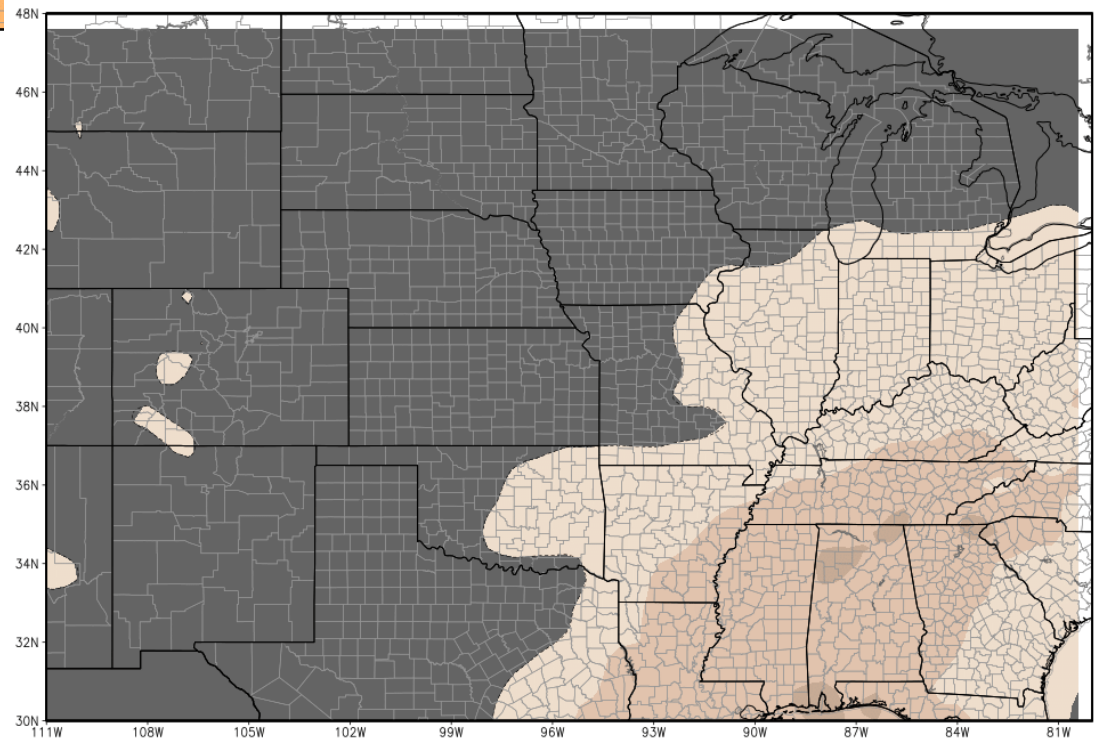
# WEEK 3 TEMP ANOMALIES

ECMWF EPS Ensemble Mean 7-day Avg Precipitation Anomaly [inch]

Min|Max Anom: -1.2 | 0.2 inch

Average between 00Z15FEB2018-00Z22FEB2018 | ECMWF EPS 1997-2016 Hindcast Climatology

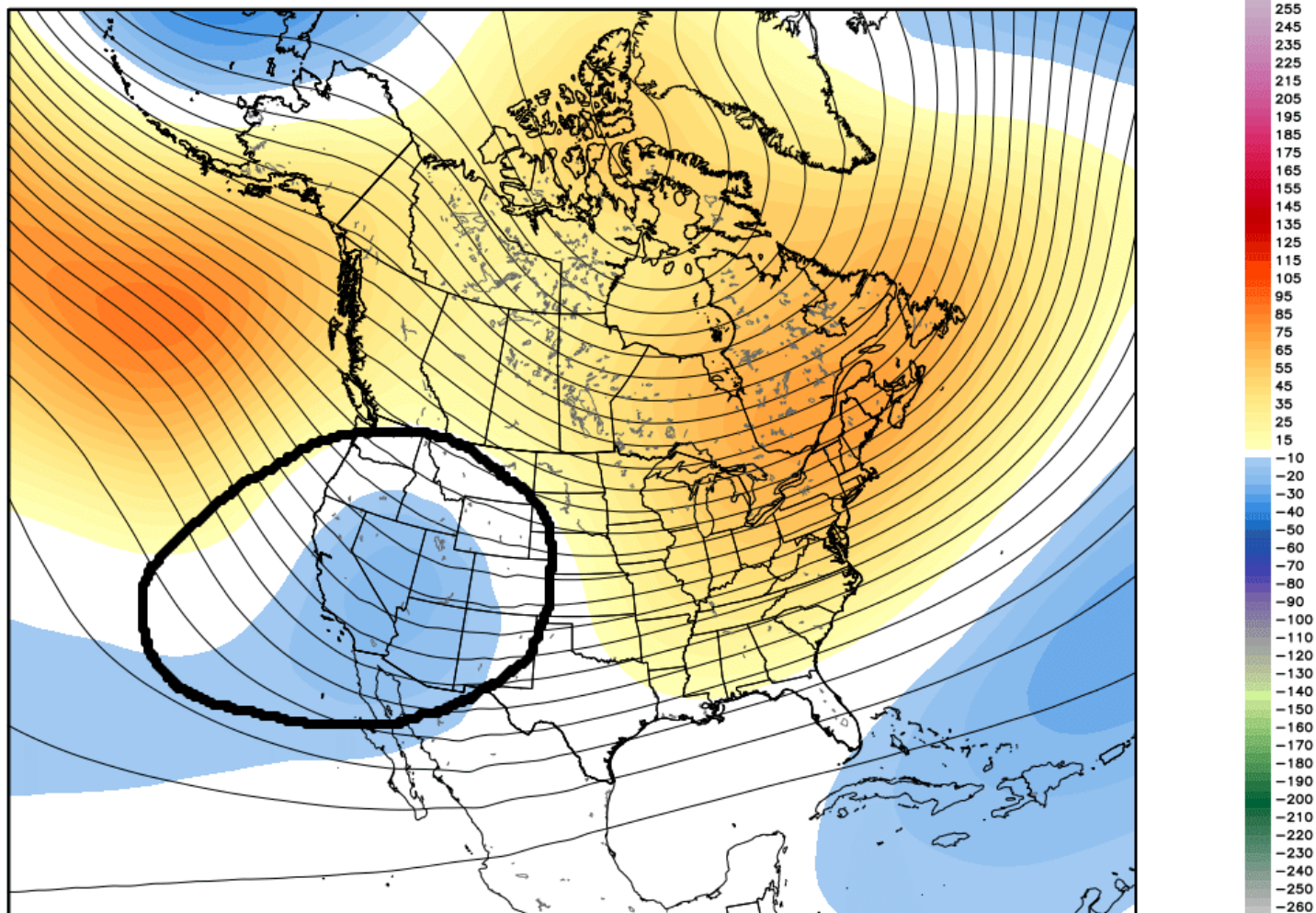
# WEEK 3 PRECIP ANOMALIES



Accumulation between 00Z15FEB2018-00Z22FEB2018 | ECMWF EPS 1997-2016 Hindcast Climatology

# Euro WEEK 4 .... Strong pacific Jet stream west to east MILD pattern .. Trough over SW US = MIGHT bring good rains to Lower Plains

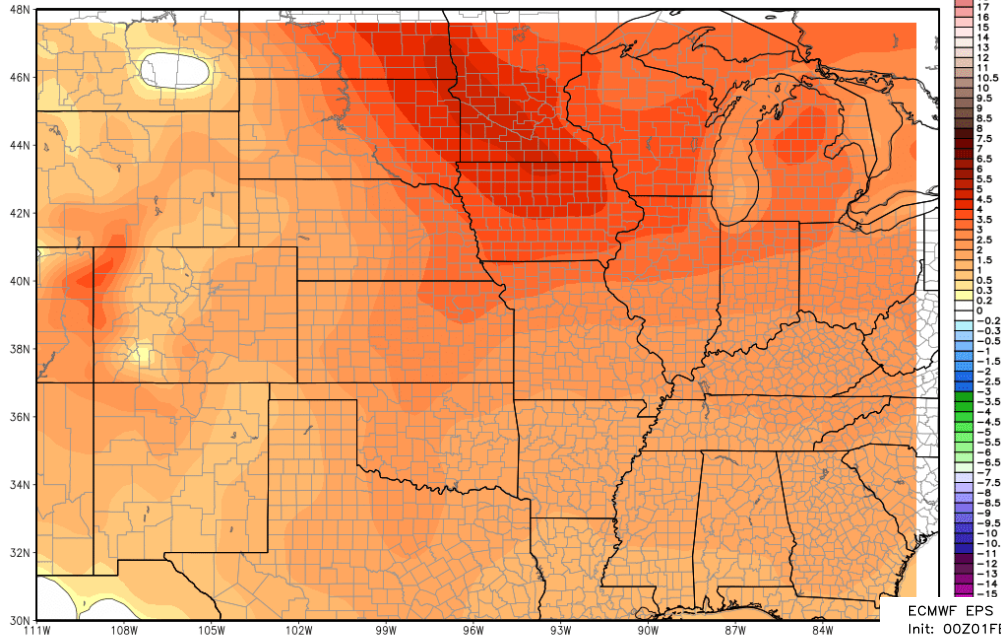
ECMWF EPS Ensemble Mean 7-day Avg 500 hPa Geopotential Height Anomaly [m] Min|Max: -49.3 | 88.0 m  
Init: 00Z01FEB2018 -- [672] hr --> Valid on Thu 00Z01MAR2018 Day 21 - Day 28



Average between 00Z22FEB2018-00Z01MAR2018 | ECMWF EPS 1996-2015 Hindcast Climatology

ECMWF EPS Ensemble Mean 7-day Avg 2m Temperature Anomaly [°C] Min|Max: -0.3° | 4.9°C  
Init: 00Z01FEB2018 -- [672] hr --> Valid on Thu 00Z01MAR2018 Day 21 - Day 28

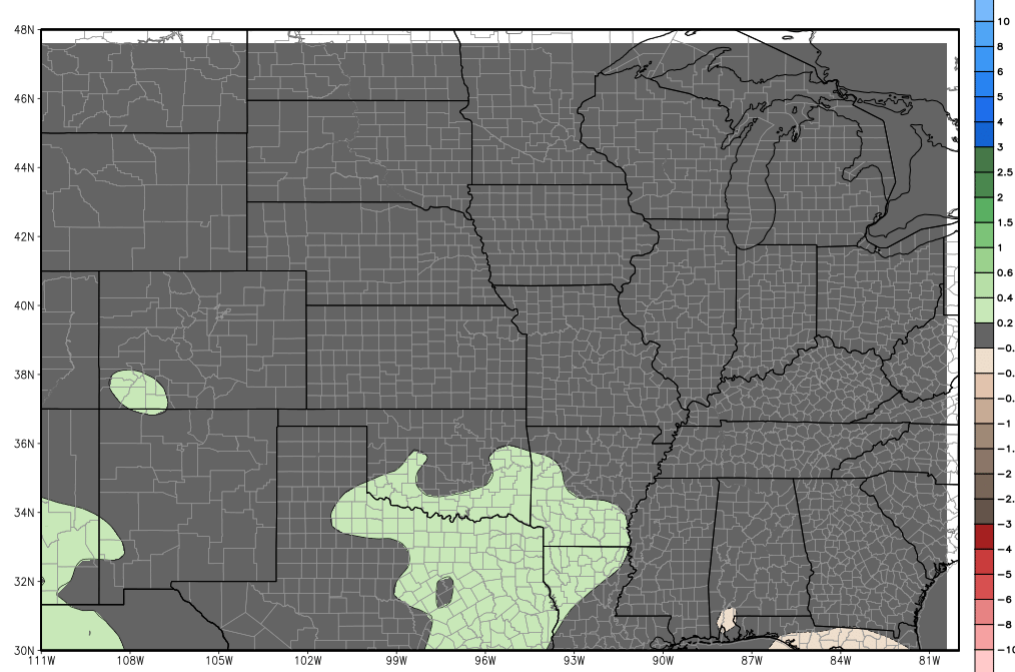
# WEEK 4 TEMP ANOMALIES



ECMWF EPS Ensemble Mean 7-day Avg Precipitation Anomaly [inch] Min|Max Anom: -0.3 | 0.5 inch  
Init: 00Z01FEB2018 -- [672] hr --> Valid on Thu 00Z01MAR2018 Day 21 - Day 28

Average between 00Z22FEB2018-00Z01MAR2018 | ECMWF EPS 1997-2016 Hindcast Climatology

# WEEK 4 PRECIP ANOMALIES



Accumulation between 00Z22FEB2018-00Z01MAR2018 | ECMWF EPS 1997-2016 Hindcast Climatology