

**US HRWW / S.AMERICA
GRAIN WEATHER
ISSUES**

**as of FRIDAY
19 JANUARY 2018**



LOCATED in Richmond VA

Featured frequently on AGRI-MONEY

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@WXRISK.COM



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

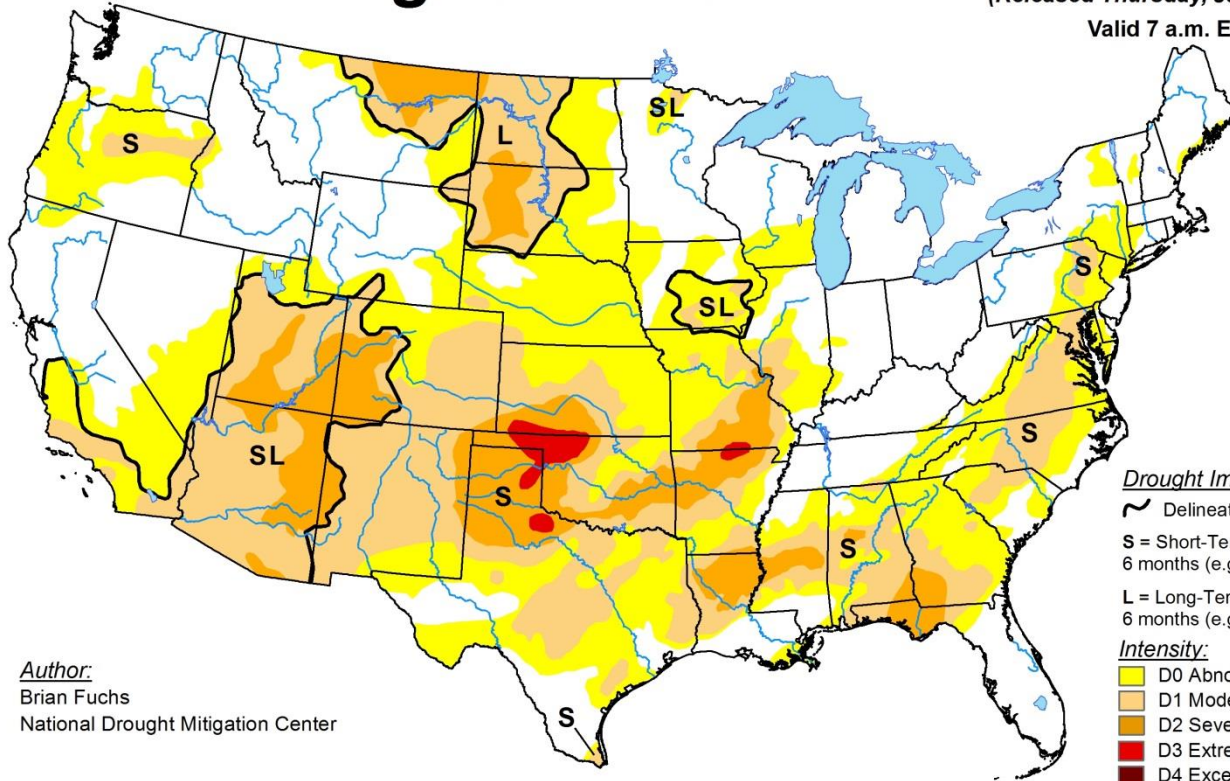
wxrisk@gmail.com

DROUGHT CONDITIONS OVER MOST OF PLAINS / DELTA WORSENING WEEKLY

U.S. Drought Monitor


January 16, 2018
(Released Thursday, Jan. 18, 2018)

Valid 7 a.m. EST








Author:
Brian Fuchs
National Drought Mitigation Center

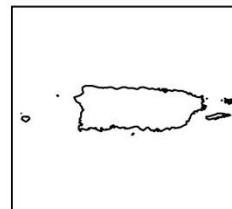
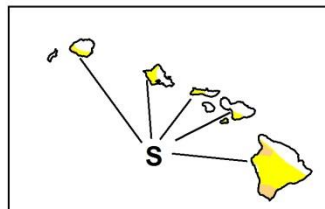
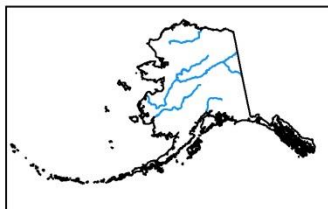
Drought Impact Types:

-  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.

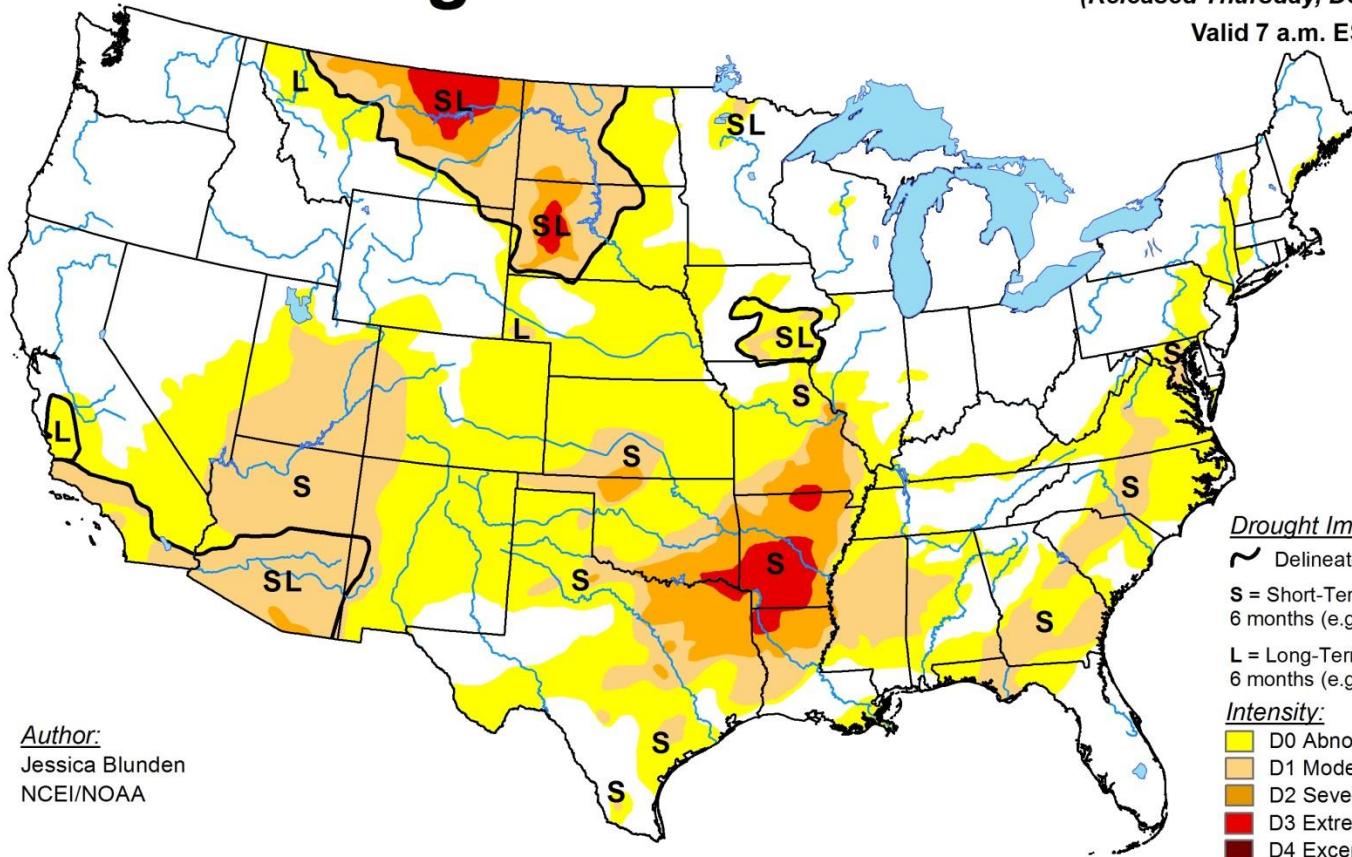


<http://droughtmonitor.unl.edu/>

US DROUGHT CONDITIONS 12/12/17

U.S. Drought Monitor

December 12, 2017
(Released Thursday, Dec. 14, 2017)
Valid 7 a.m. EST



Author:
Jessica Blunden
NCEI/NOAA

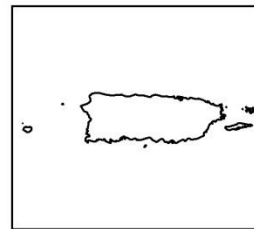
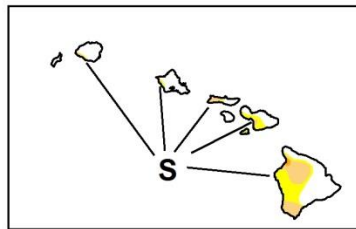
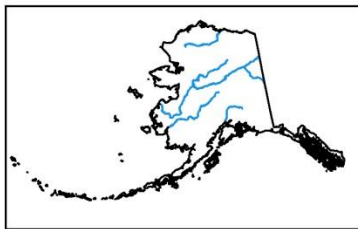
Drought Impact Types:

- ~ 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:

- 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.



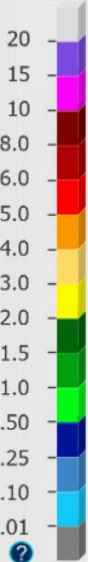
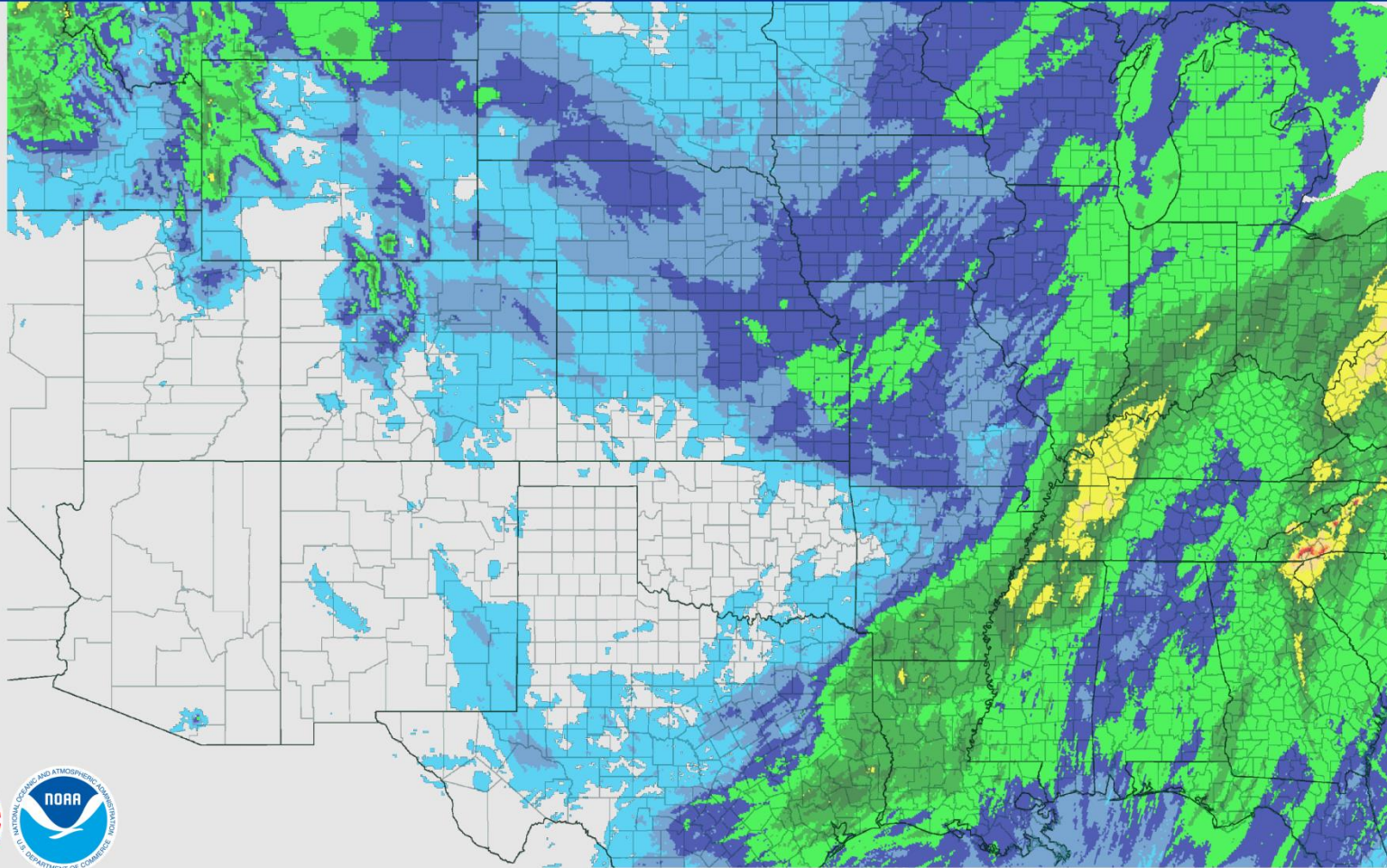
<http://droughtmonitor.unl.edu/>

RAINFALL LAST 7 DAYS

January 18, 2018 7-Day Observed Precipitation

Created on: January 19, 2018 - 12:49 UTC

Valid on: January 18, 2018 12:00 UTC

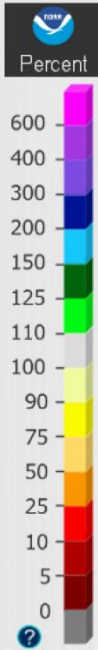
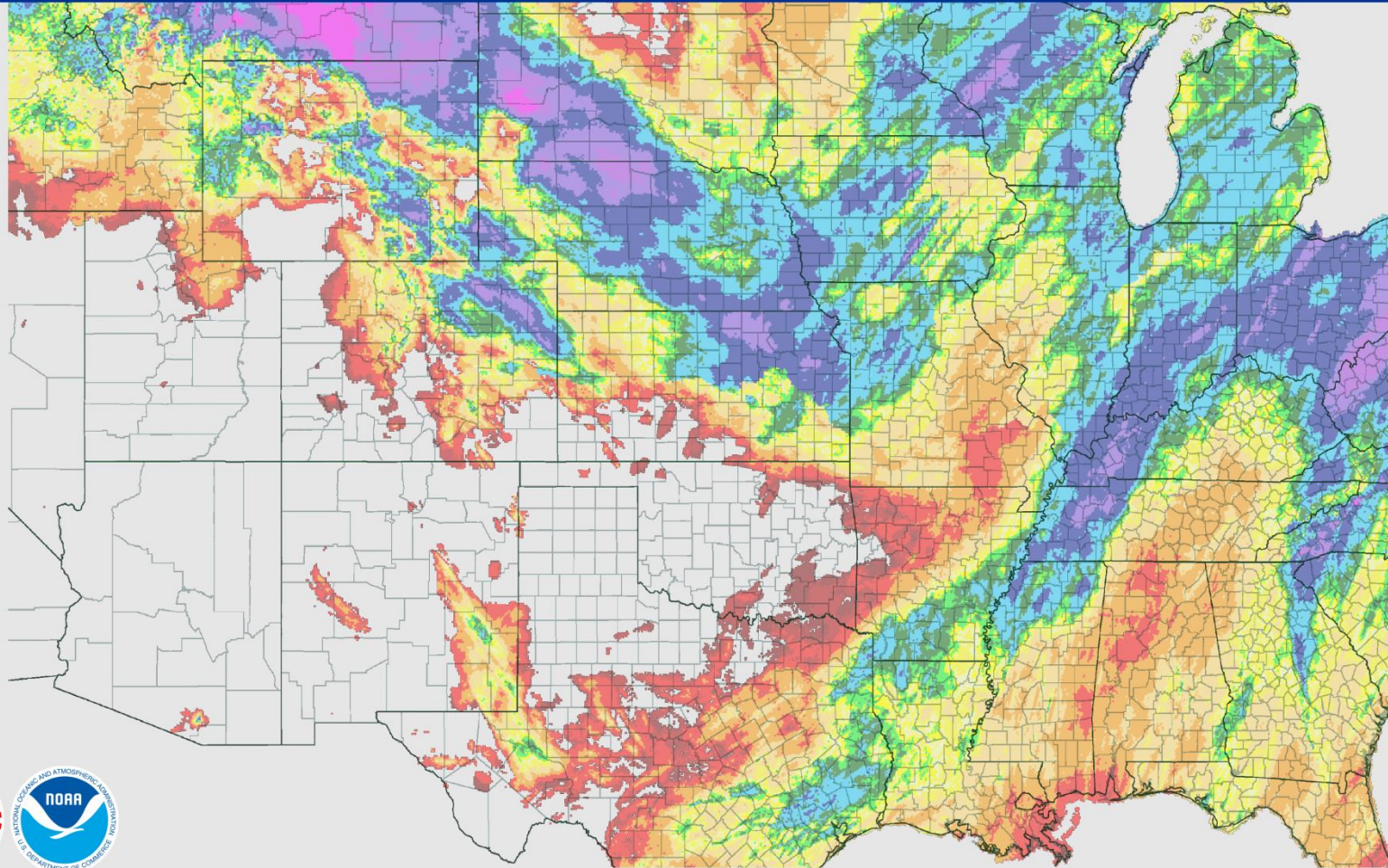


RAINFALL ANOMALIES PAST 7 DAYS

January 18, 2018 7-Day Percent Precipitation

Created on: January 19, 2018 - 12:50 UTC

Valid on: January 18, 2018 12:00 UTC

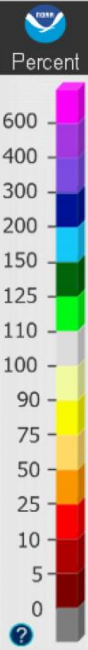
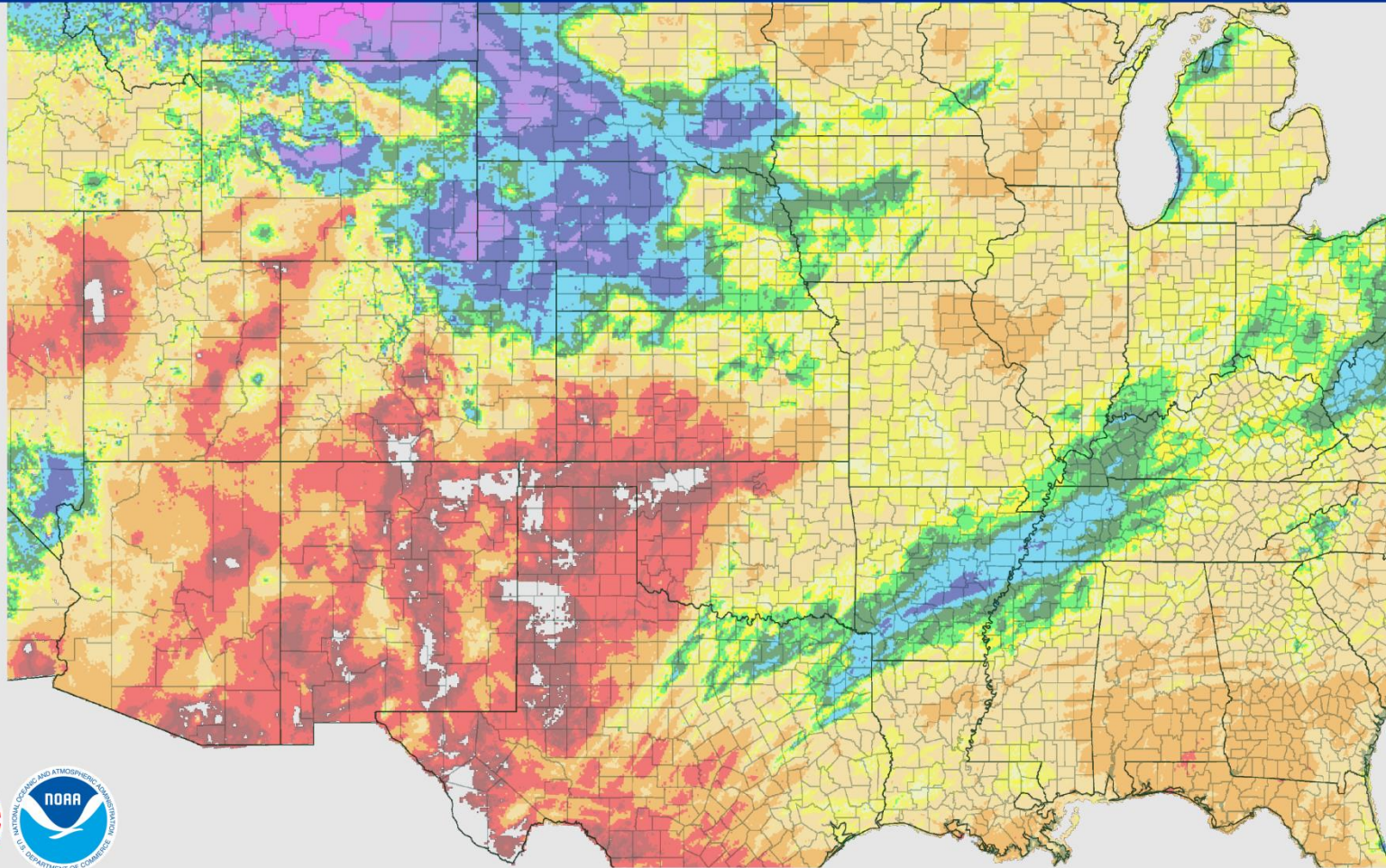


RAINFALL ANOMALIES PAST 30 DAYS

January 18, 2018 30-Day Percent Precipitation

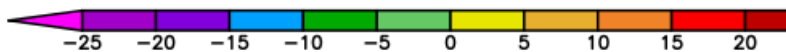
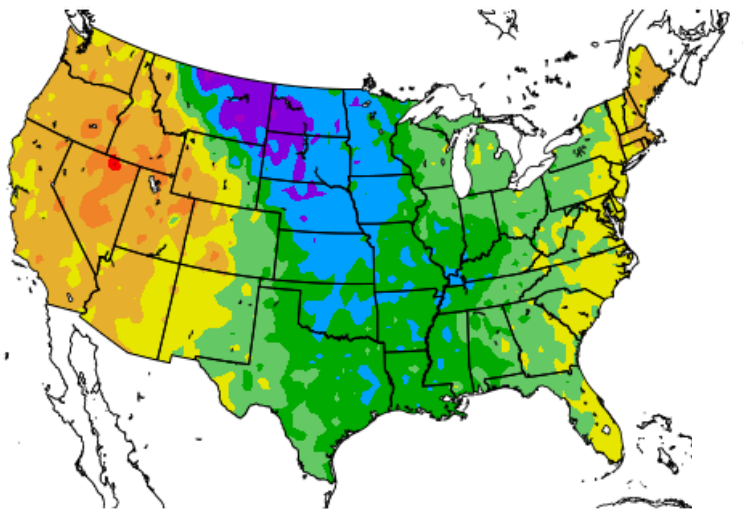
Created on: January 19, 2018 - 12:53 UTC

Valid on: January 18, 2018 12:00 UTC



TEMPS FALL PAST 7/30 DAYS—

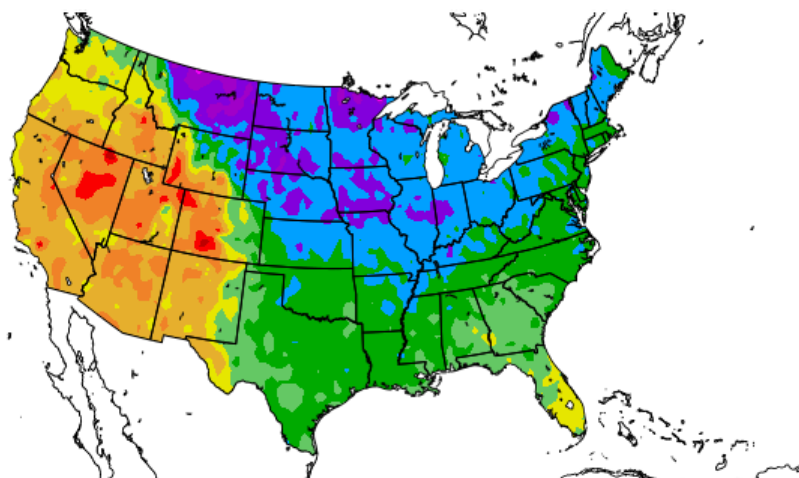
Departure from Normal Temperature (F)
1/11/2018 – 1/17/2018



Generated 1/18/2018 at HPRCC using provisional data.

NOAA Reg

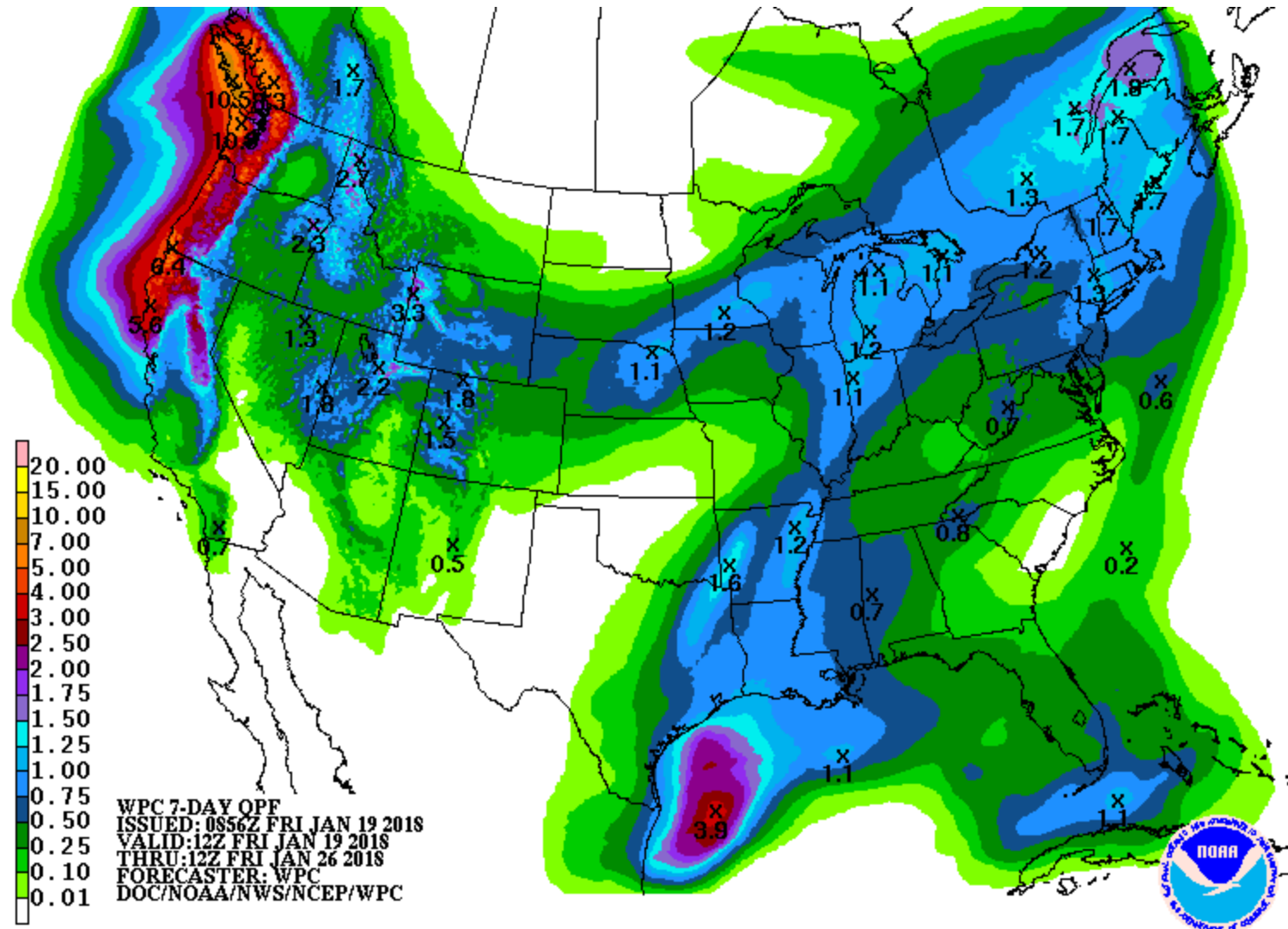
Departure from Normal Temperature (F)
12/19/2017 – 1/17/2018



Generated 1/18/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

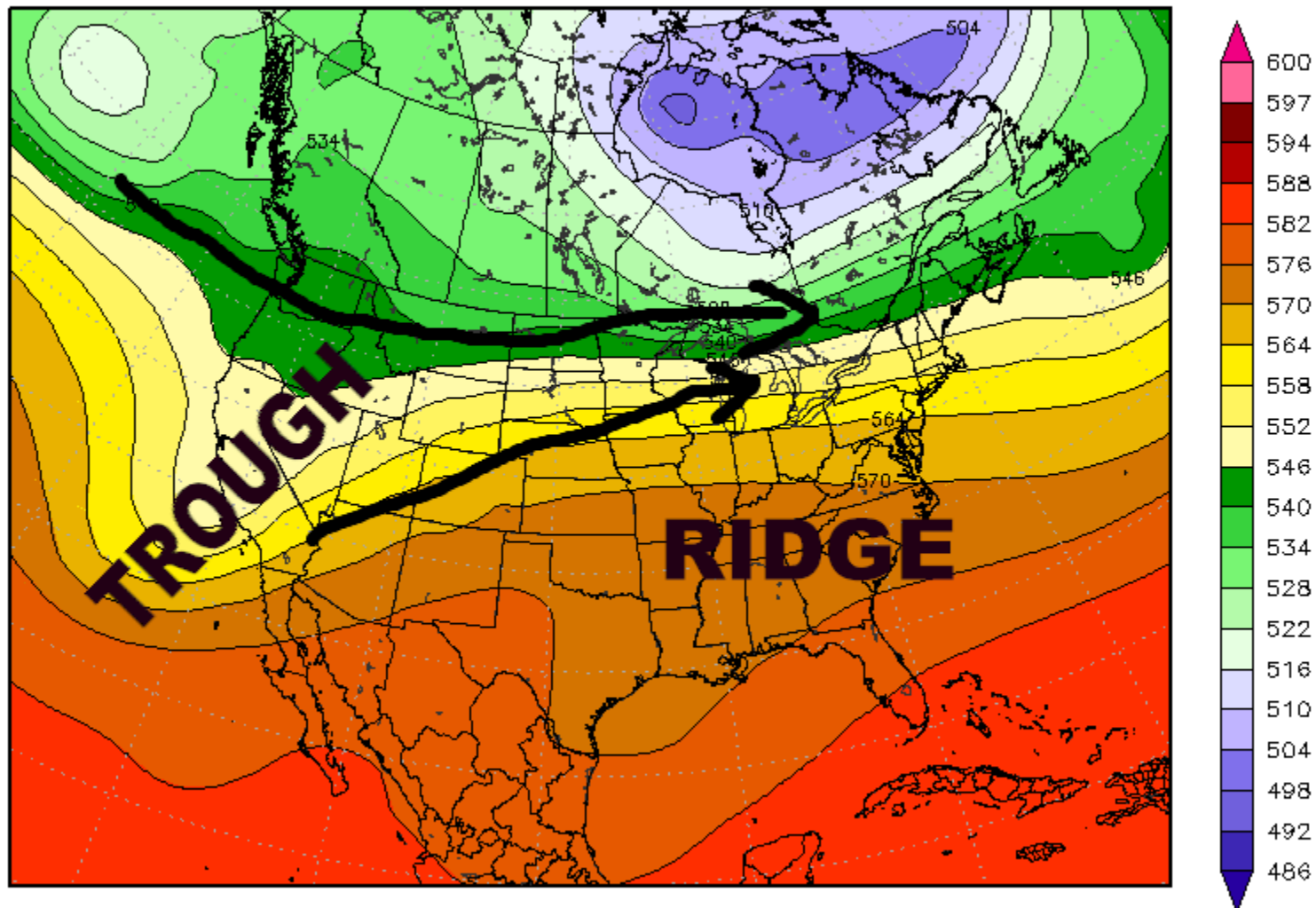
NWS OFFICIAL RAINFALL NEXT 7 DAYS



CURRENT UPPER AIR PATTERN.. Now its is the PACIFIC JET 'S TURN

500 mb Height
Valid: 06z Sat 20 Jan 2018

ECMWF
Hour: 42

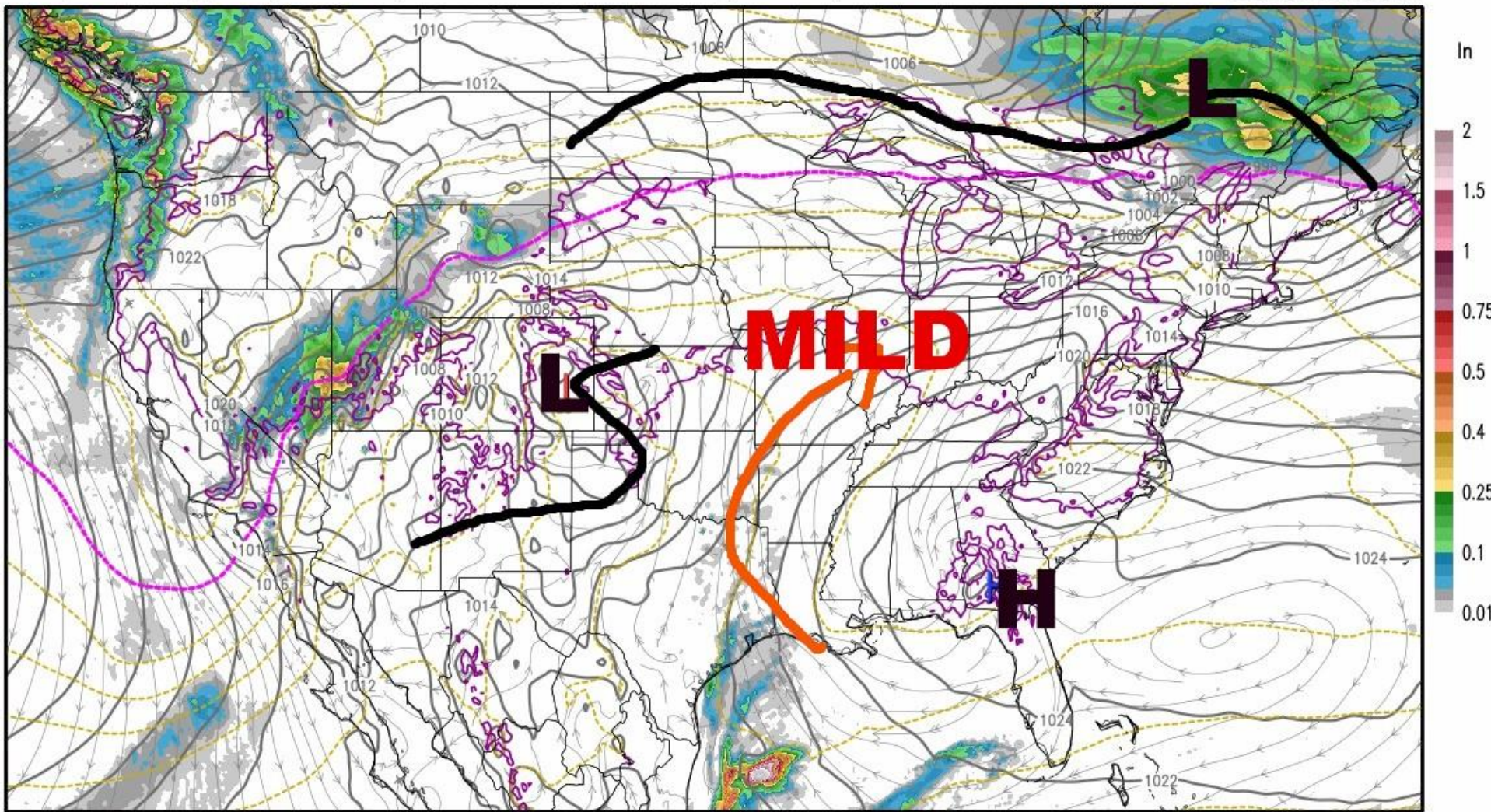


SURFACE MAP SATURDAY ...MILD PATTERN UNDER WAY

MSLP, 6hr Precip, Wind, Thickness, 32f

Valid Saturday 12Z 01/20

EuroWX.com

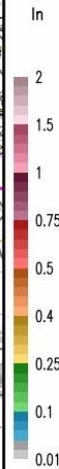
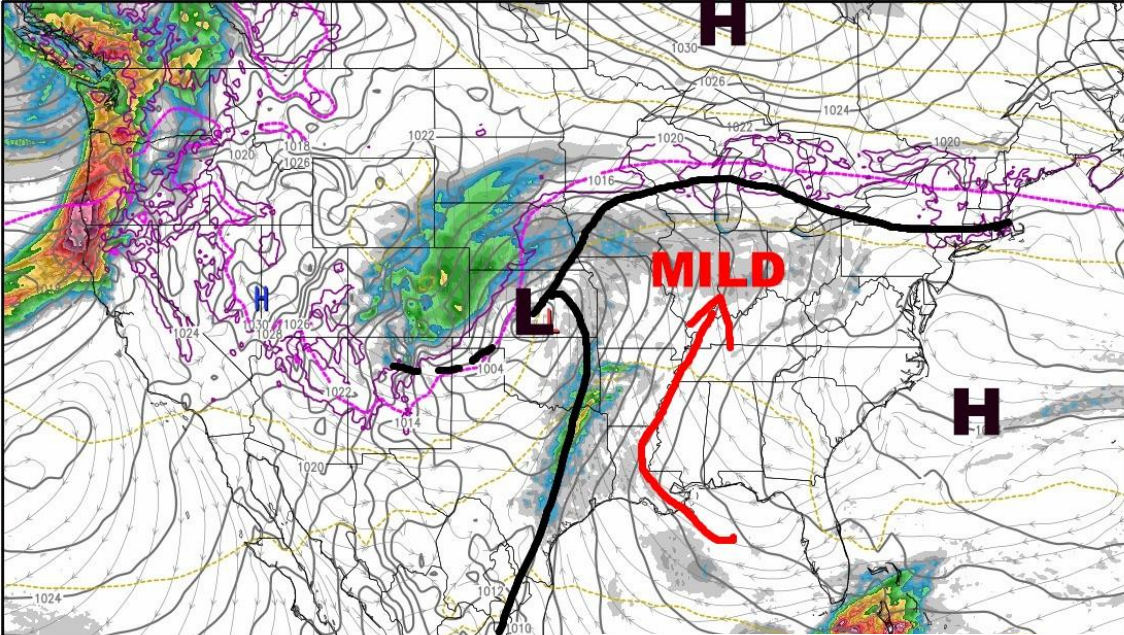


ECMWF HRES MODEL RUN 00Z 01/19 36hr FORECAST

© 2018 ECMWF

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

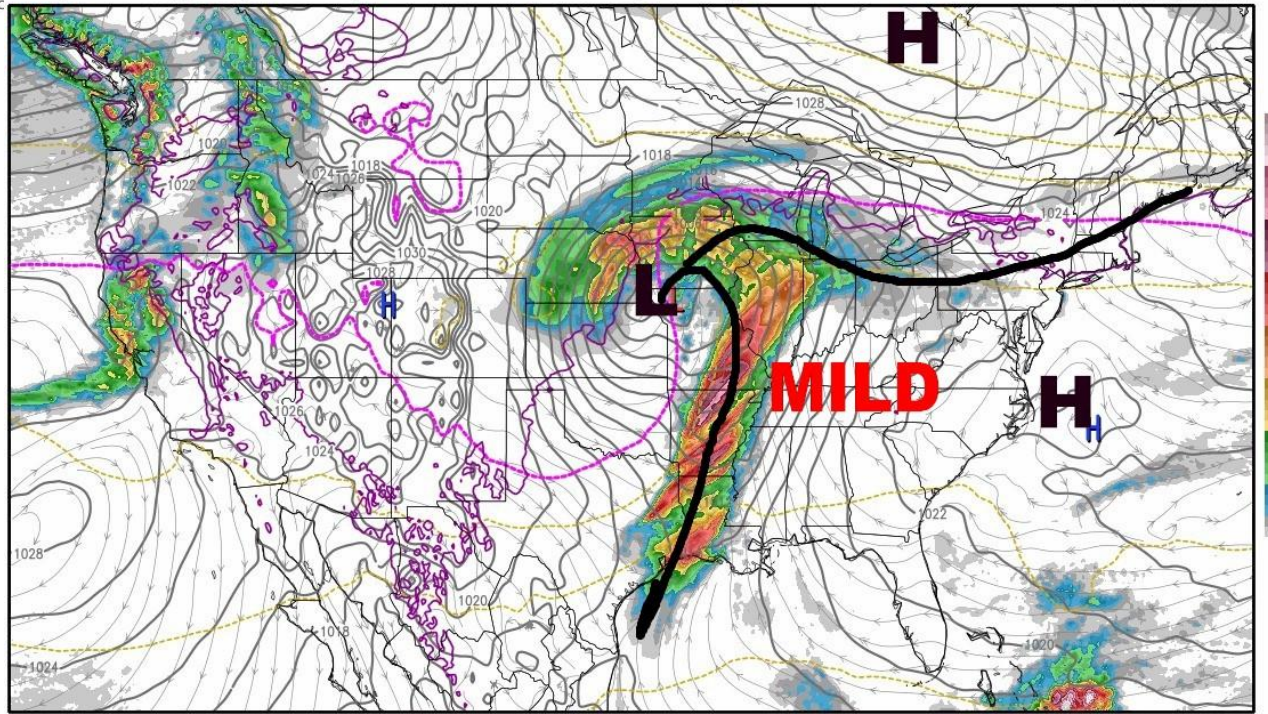
MIDWEST LOW JAN 21-22



ECMWF HRES MODEL RUN 00Z 01/19 72hr FORECAST
This service is based on data and products of the Euro

MSLP, 6hr Precip, Wind, Thickness, 32f

Valid Monday 12Z 01/22



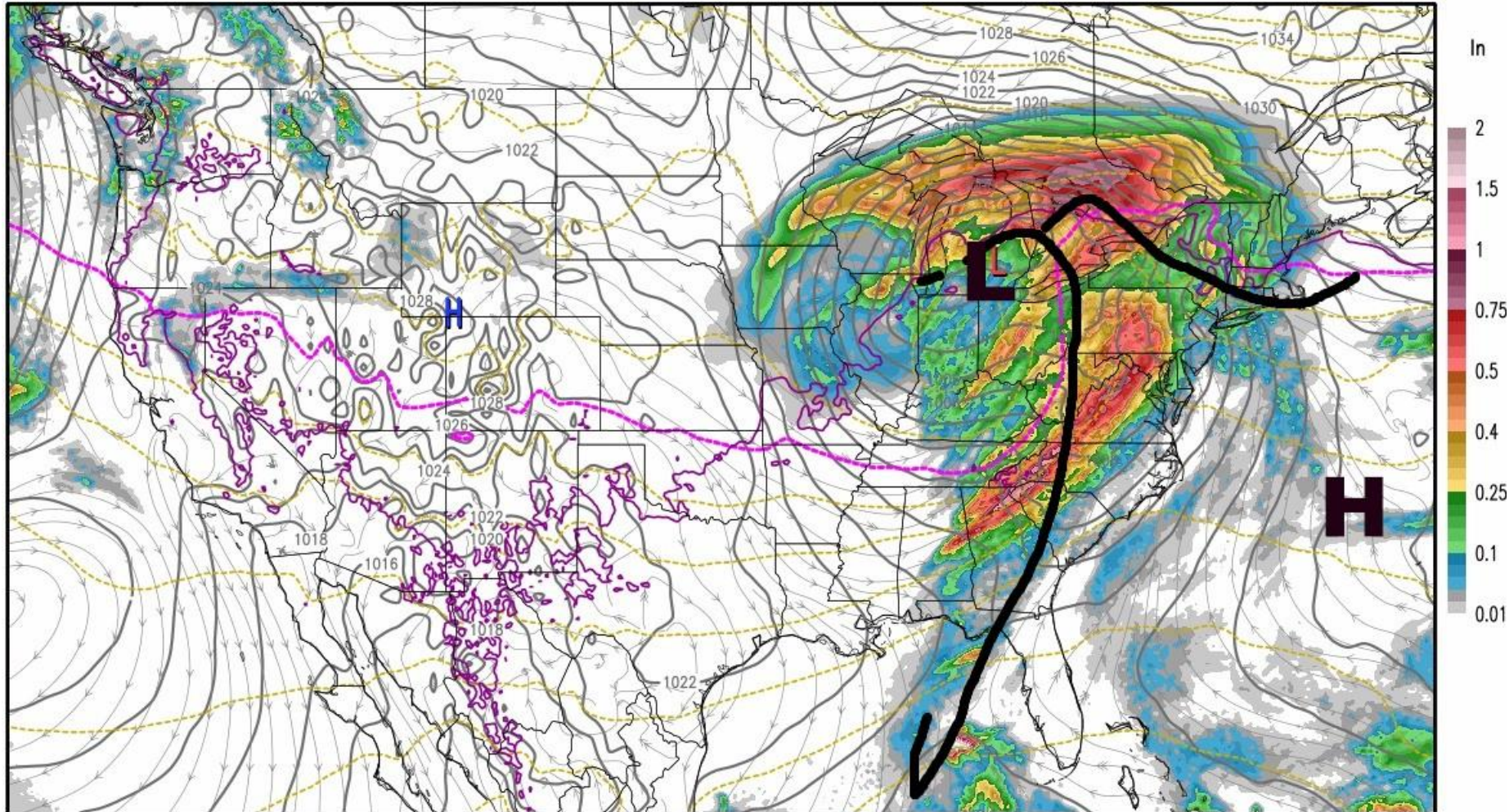
ECMWF HRES MODEL RUN 00Z 01/19 84hr FORECAST

GOOD RAINS JAN 23 GREAT LAKES EACB EAST COAST SOME SNOW IN WCB

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

Valid Tuesday 12Z 01/23

EuroWX.com



ECMWF HRES MODEL RUN 00Z 01/19 108hr FORECAST

© 2018 ECMWF

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

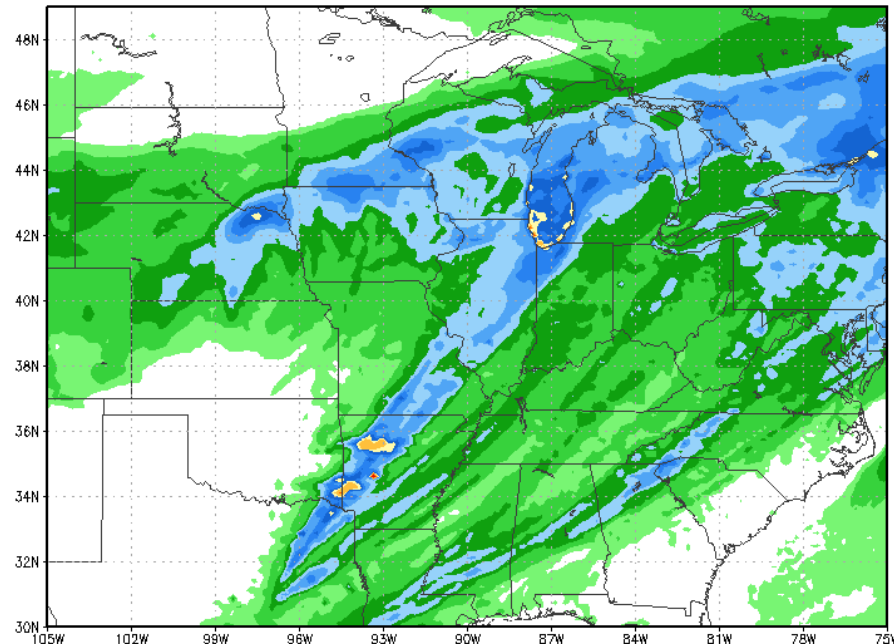
174 Hour Total Precipitation (in)

Valid: 00z Fri 19 Jan 2018 - 06z Fri 26 Jan 2018

ECMWF-MAXRES

Hour: 0 - 174

RAIN OVER 7 DAYS EURO = UPPER LEFT GFS LOWER RIGHT



Max: 3.5 in
Min: 0.0 in

StormVistaWxModels.com

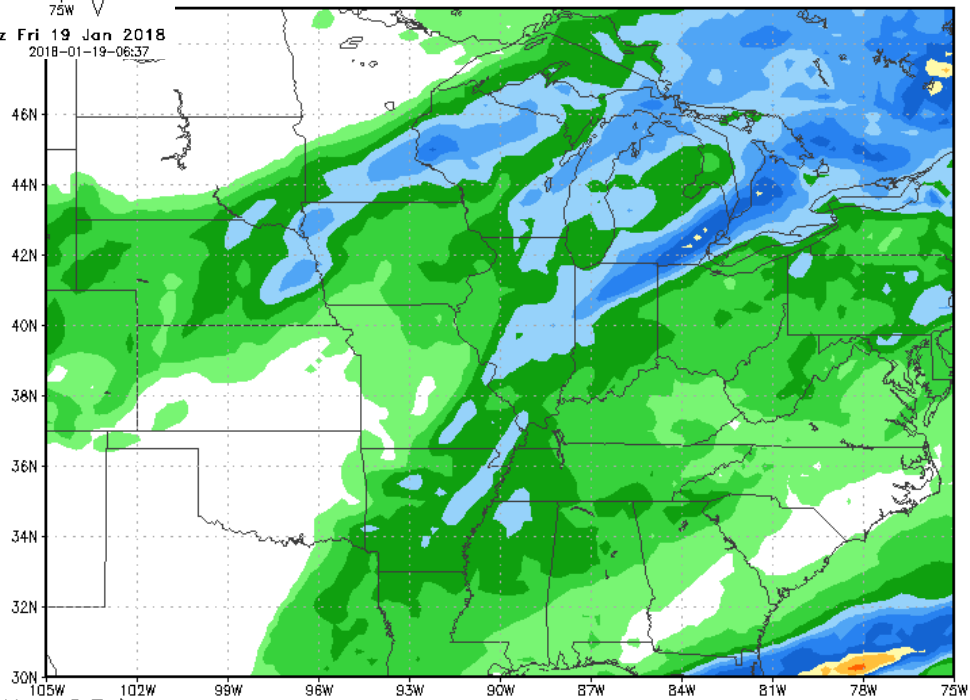
Init: 00z Fri 19 Jan 2018
2018-01-19-06:37

Total Precipitation (in)

Fri 19 Jan 2018 - 00z Fri 26 Jan 2018

GFS-MAXRES

Hour: 0 - 168

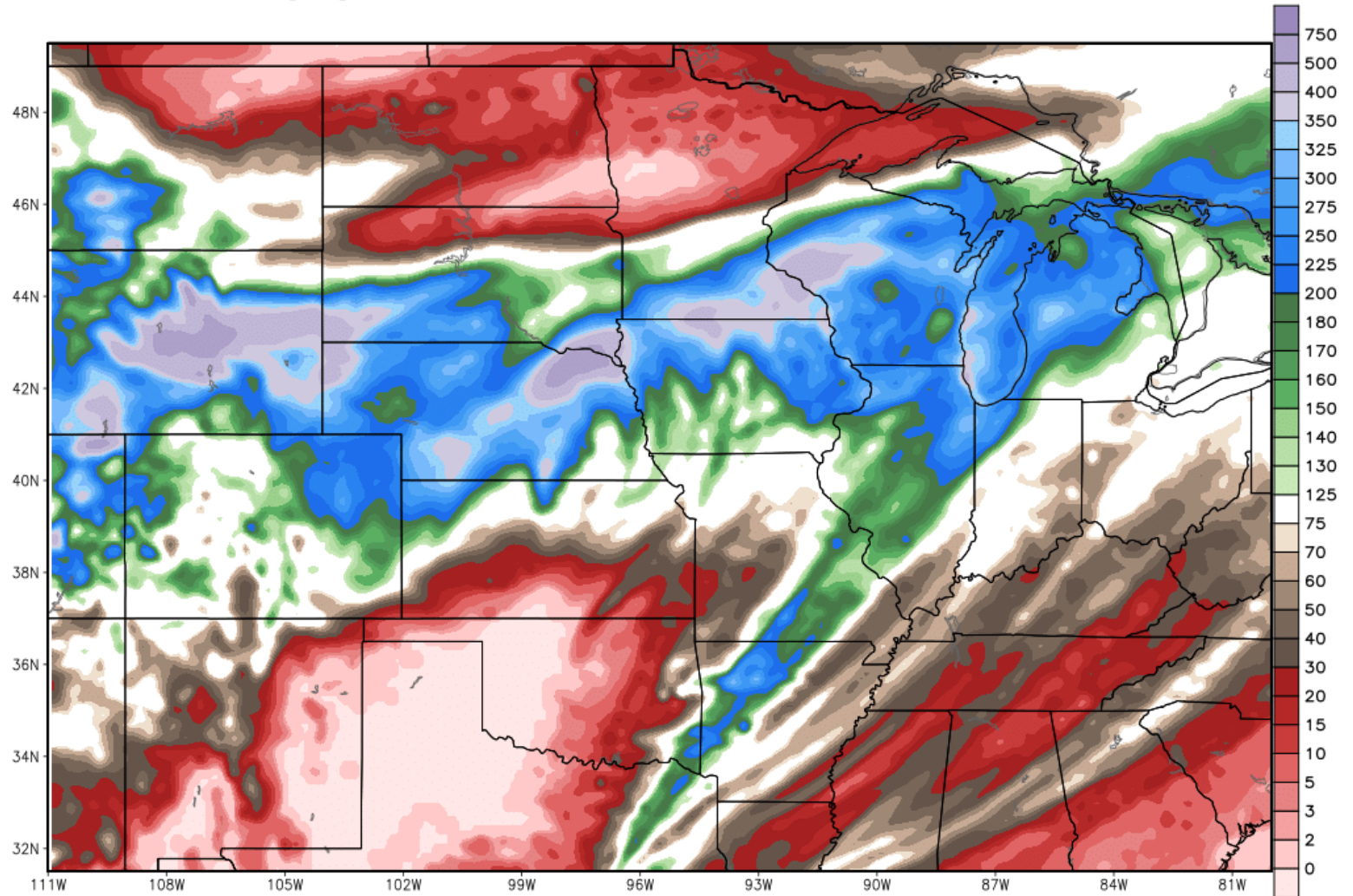


Max: 2.7 in
Min: 0.0 in

StormVistaWxModels.com

Init: 00z Fri 19 Jan 2018
2018-01-19-04:17

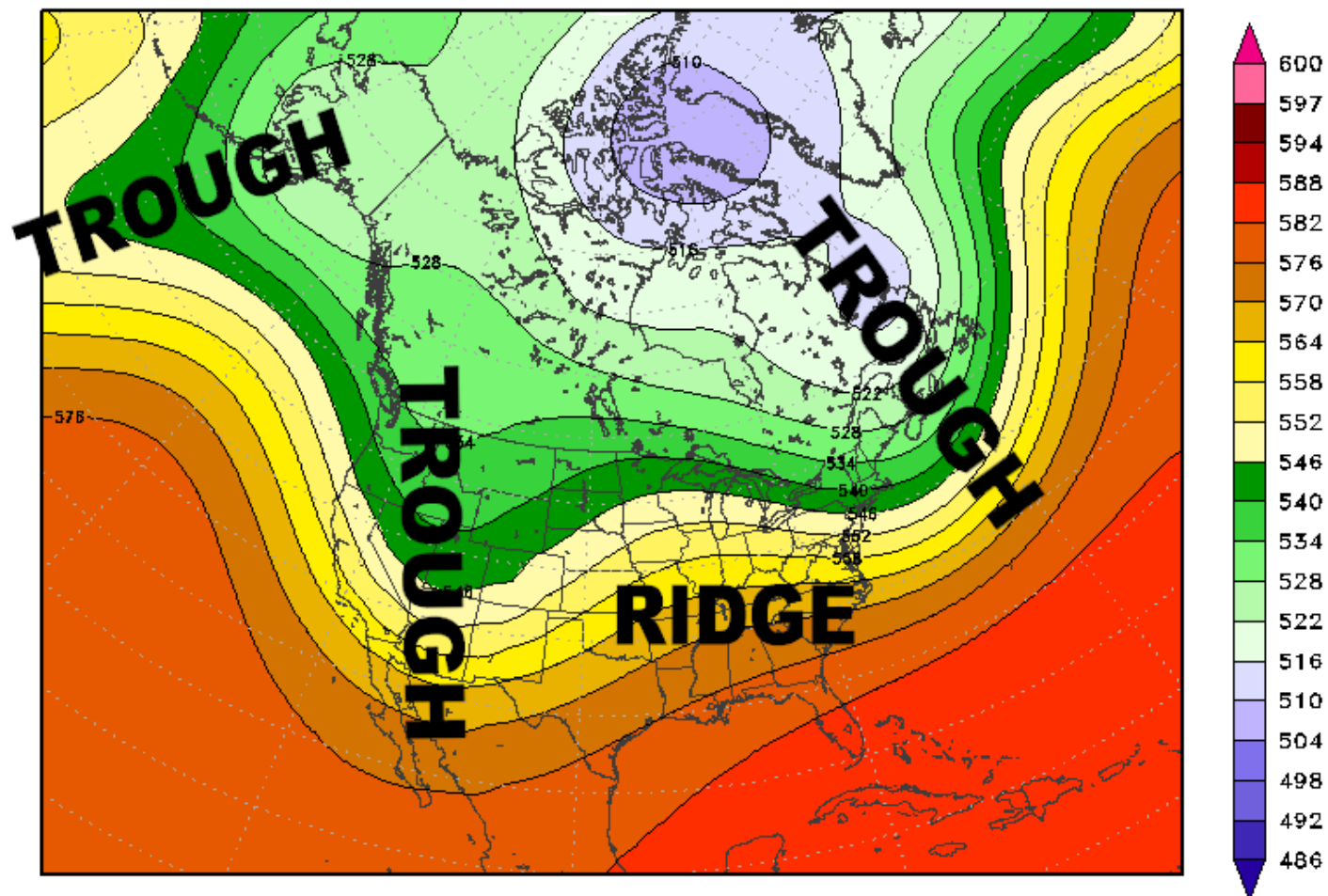
ECMWF 7-day Precip Anomaly [% of normal] between 06Z19JAN2018 -- 06Z26JAN2018
INIT: 00Z19JAN2018 fx: [174] hr --> Fri 06Z26JAN2018



2 BIG TROUGHS COMING IN FROM THE PACIFIC... GENERALLY MILD PATTERN OVER PLAINS/ MIDWEST / EASTERN US

500 mb Height
Valid: 12z Thu 25 Jan 2018

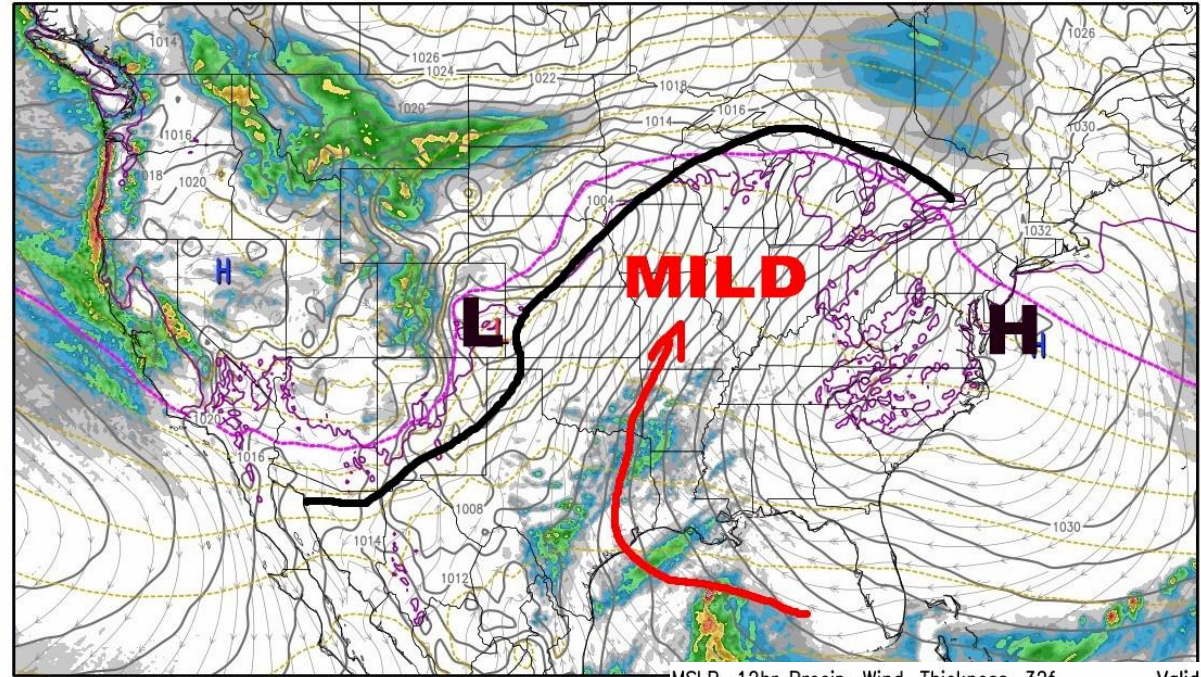
ECMWF-EPS
Hour: 168



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

Valid Friday 12Z 01/26

EuroWX.com

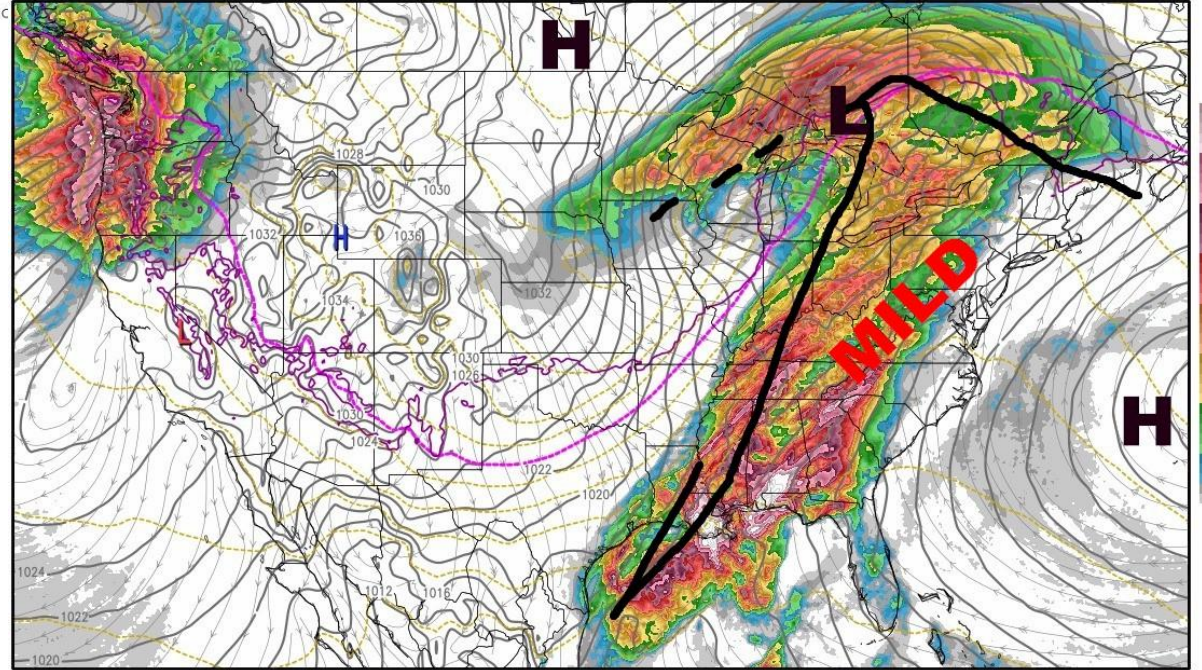


ECMWF HRES MODEL RUN 00Z 01/19 180hr FORECAST
This service is based on data and products of the European Centre for Medium-Range Weather Forecasts

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

Valid Sunday 00Z 01/28

EuroWX.com



ECMWF HRES MODEL RUN 00Z 01/19 216hr FORECAST

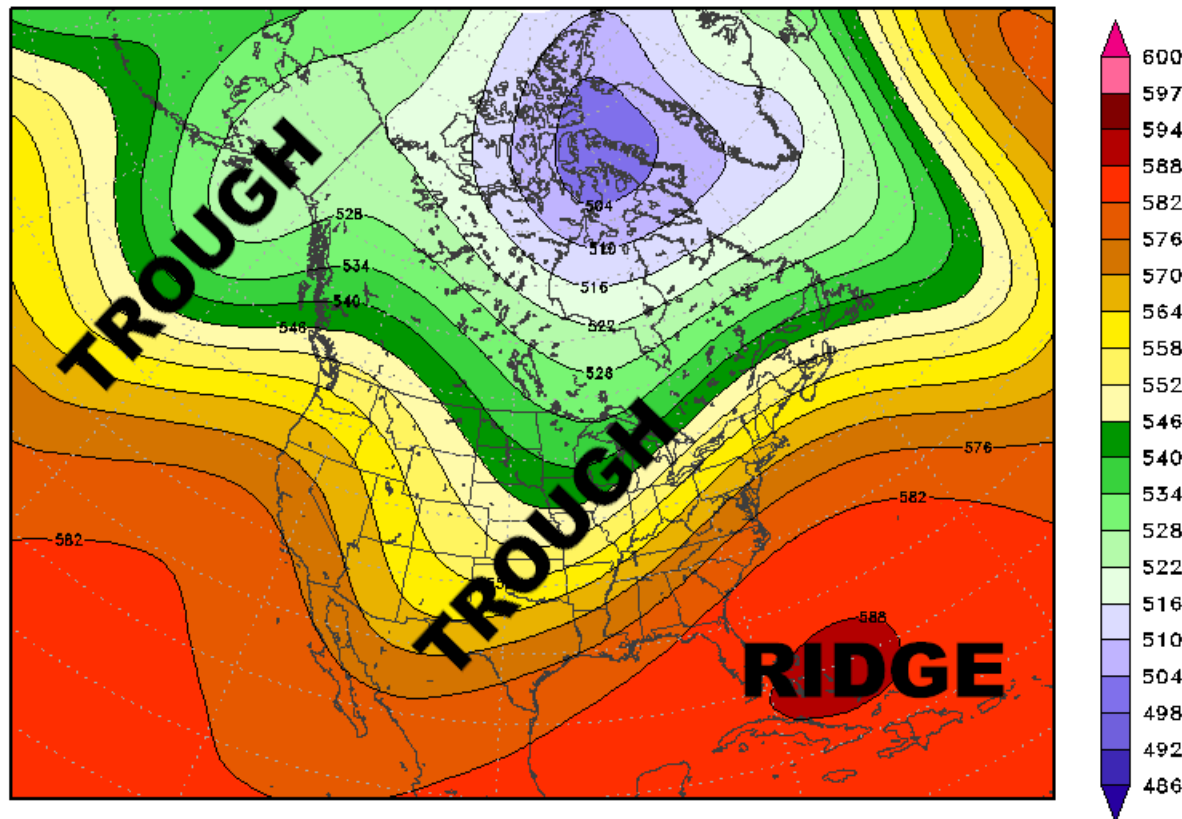
This service is based on data and products of the European Centre for Medium-Range Weather Forecasts

© 2018 ECMWF

2 BIG TROUGHS ADVANCING ACROSS THE EASTERN PACIFIC AND WESTERN US

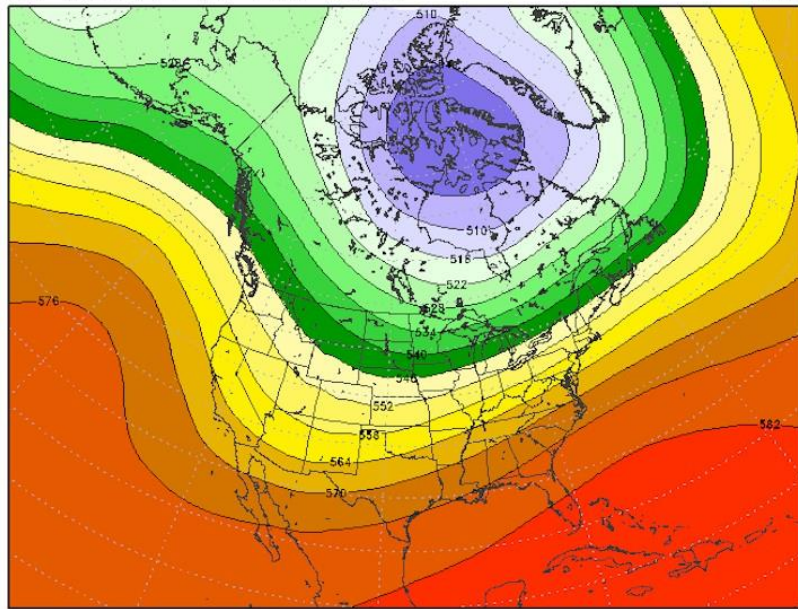
500 mb Height
Valid: 18z Sat 27 Jan 2018

ECMWF-EPS
Hour: 222



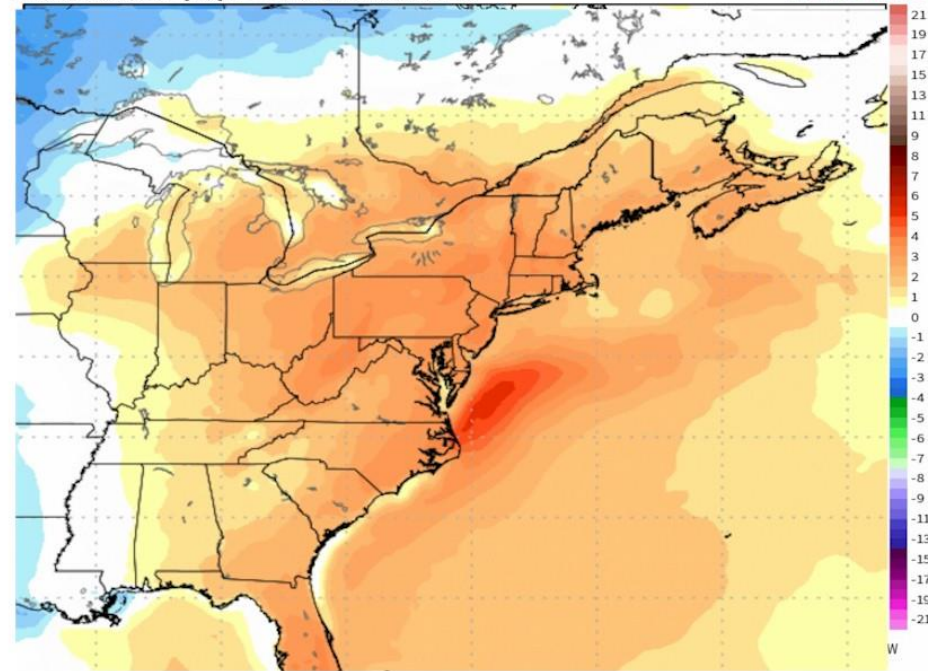
PATTERN BEGINS TO CHANGE ...RIDGE FORMS OVER EASTERN PACIFIC ... TROUGH AND COLDER AIR MOVES INTO PLAINS... EASTERN US STILL MILD MIDWEST= WET

500 mb Height
Valid: 00z Fri 02 Feb 2018



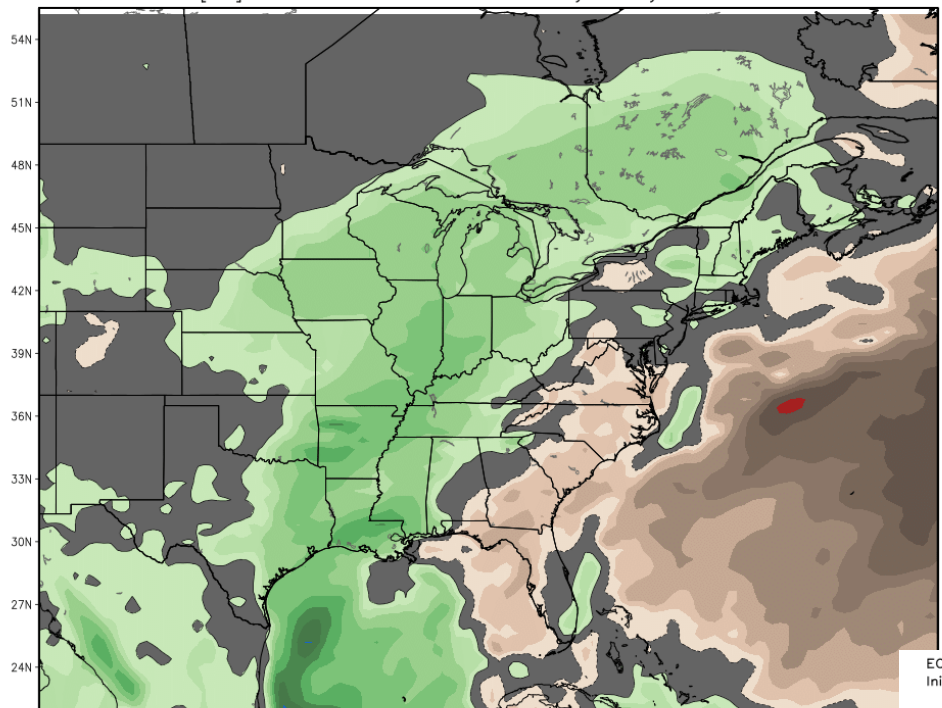
ECMWF-EPS
Hour: 348

ECMWF EPS 2-meter Temperature Anomaly [°C] | 5-day Ensemble Mean --> 06Z24.JAN2018 & 06Z29.JAN2018 Day 9.25 - Day 14.25
Init: 00Z15.JAN2018 -- [342] hr --> Valid Mon 06Z29.JAN2018



ECMWF EPS Ensemble Mean 32-day Avg Precipitation Anomaly [inch]
Init: 00Z18JAN2018 -- [768] hr --> Valid on Mon 00Z19FEB2018 Day 0 - Day 32

Min|Max Anom: -3.2 | 3.1 inch



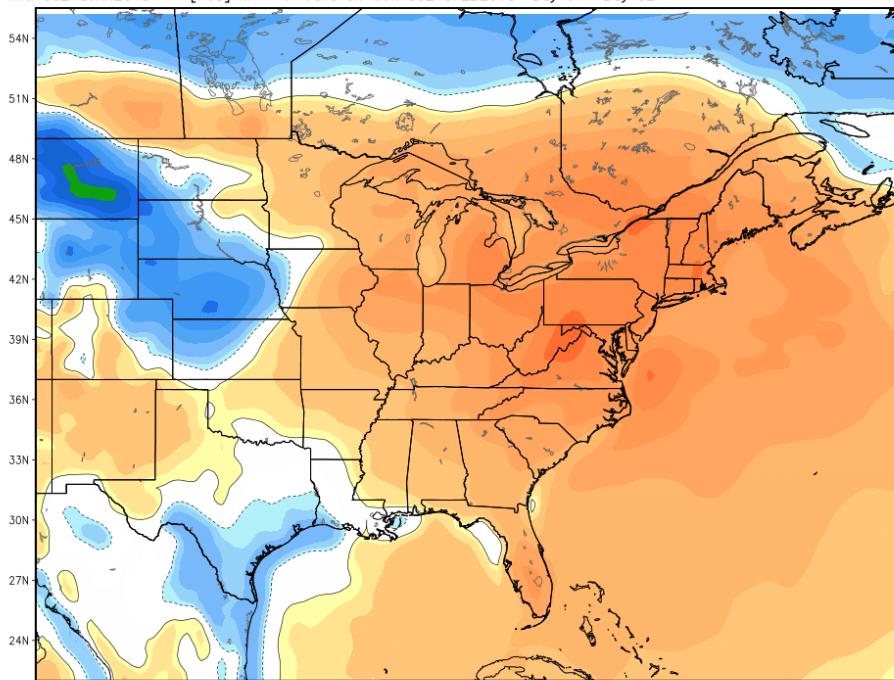
**EURO WEEKLIES ---
NEXT 32 DAYS WET
OVER MIDWEST DELTA
EASTERN LOWER
PLAINS MILD OVER
PLAINS/ MIDWEST
EASTERN COAST**

ECMWF EPS Ensemble Mean 32-day Avg 2m Temperature Anomaly [°C]

Init: 00Z18JAN2018 -- [768] hr --> Valid on Mon 00Z19FEB2018 Day 0 - Day 32

Min|Max: -3.5° | 3.4°C

Accumulation between 00Z18JAN2018-00Z19FEB2018 | ECMWF EPS 1996-2015 Hindcast Climatology

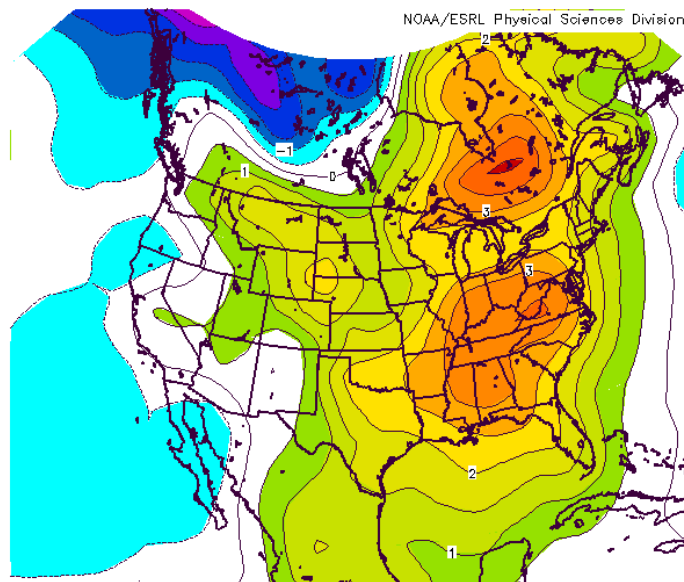


Average between 00Z18JAN2018-00Z19FEB2018 | ECMWF EPS 1996-2015 Hindcast Climatology

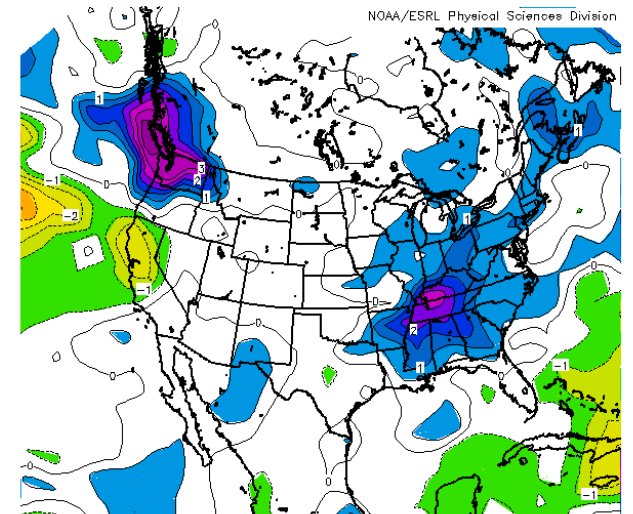
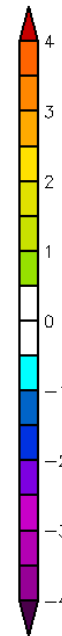
The ROLLOVER model takes top 10 matches of the 11-15 day pattern and ASSUMES the pattern continues into the 16-20 day / FEB 3 - 7

TEMP ANOMALIES

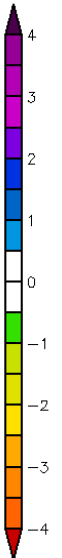
/ PRECIP ANOMALIES



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



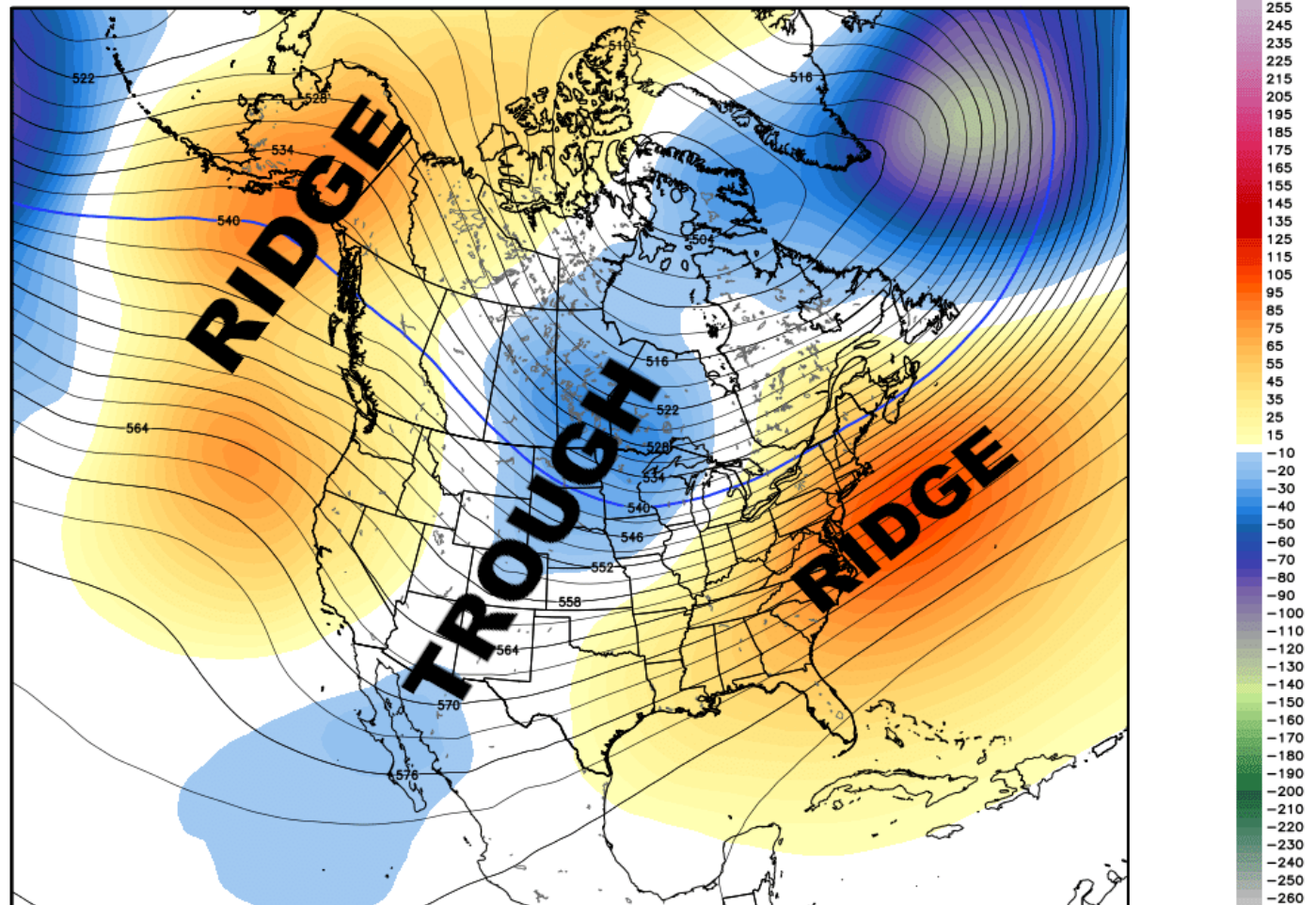
Surface Precipitation Rate (mm/day) Composite Anomaly (1981-2010 Climatology)
CPC Analog 16-20 Day Composite
NCEP/NCAR Reanalysis



PATTERN BEGINS TO CHANGE ... RIDGE FORMS OVER EASTERN PACIFIC ... TROUGH AND COLDER AIR MOVES INTO PLAINS... EASTERN US STILL MILD MIDWEST = WET

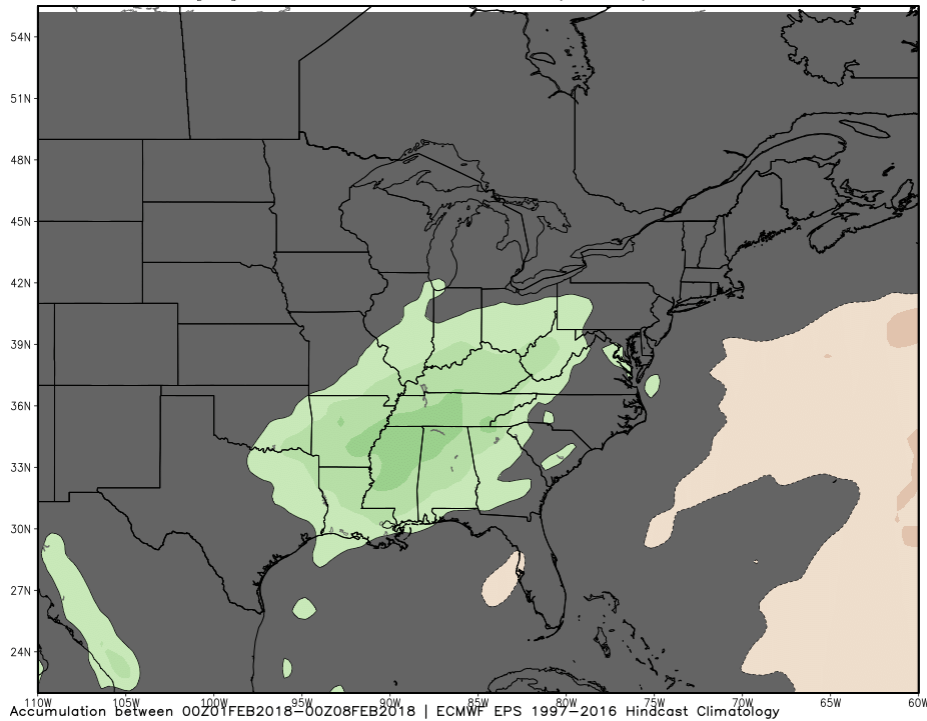
ECMWF EPS Monthly Ensemble Mean 500 hPa Geopotential Height [dm] & Anomaly [m]
INIT: 00Z18JAN2018 fx: [552] hr --> Sat 00Z10FEB2018

Min|Max: -128.9 | 105.8 m



ECMWF EPS Ensemble Mean 7-day Avg Precipitation Anomaly [inch]
Init: 00Z18JAN2018 -- [504] hr --> Valid on Thu 00Z08FEB2018 Day 14 - Day 21

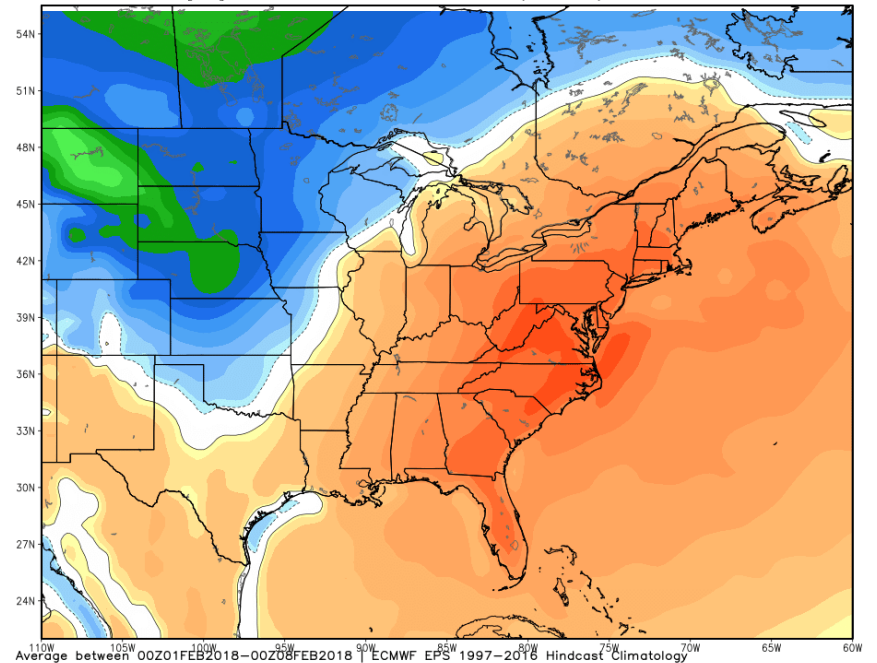
Min|Max Anom: -0.6 | 1.0 inch



EURO WEEKLIES FEB 2-8... WET OVER DELTA ECB DEEP SOUTH ... MILD OF THE MISSISSIPPI RIVER

ECMWF EPS Ensemble Mean 7-day Avg 2m Temperature Anomaly [°C]
Init: 00Z18JAN2018 -- [504] hr --> Valid on Thu 00Z08FEB2018 Day 14 - Day 21

Min|Max: -5.0° | 4.0°C

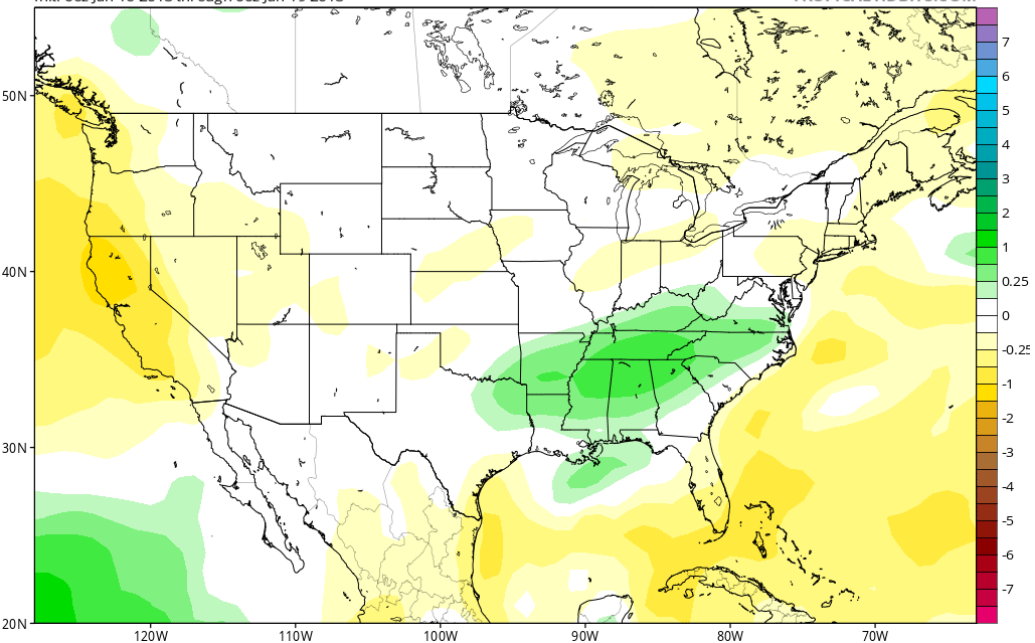


CFSv2 Accumulated Precip. Anomaly (in) from 00z02Feb2018 to 00z09Feb2018 (Days 15-21)

Average of last 48 forecasts (12 runs x 4 members)

Init: 06z Jan 16 2018 through 00z Jan 19 2018

TROPICALTIDBITS.COM



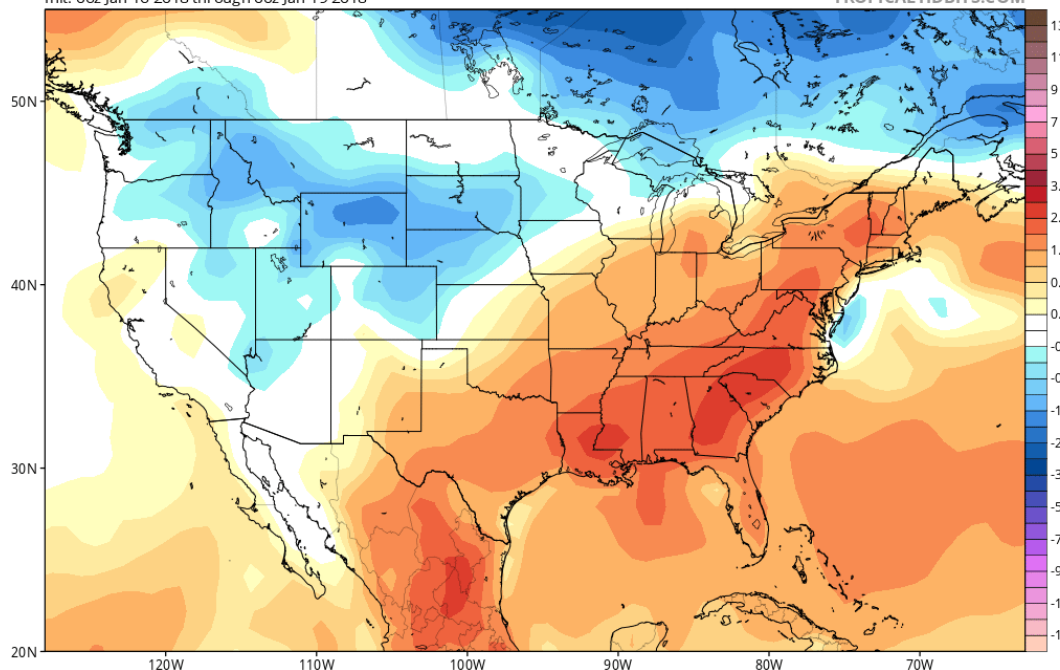
**CFS WEEKLIES FEB
2-8... WET OVER DEEP
SOUTH BUT DRY OVER
MIDWEST-- MILD DEEP
SOUTH ECB**

CFSv2 Mean 2m Temperature Anomaly (°C) from 00z02Feb2018 to 00z09Feb2018 (Days 15-21)

Average of last 48 forecasts (12 runs x 4 members)

Init: 06z Jan 16 2018 through 00z Jan 19 2018

TROPICALTIDBITS.COM

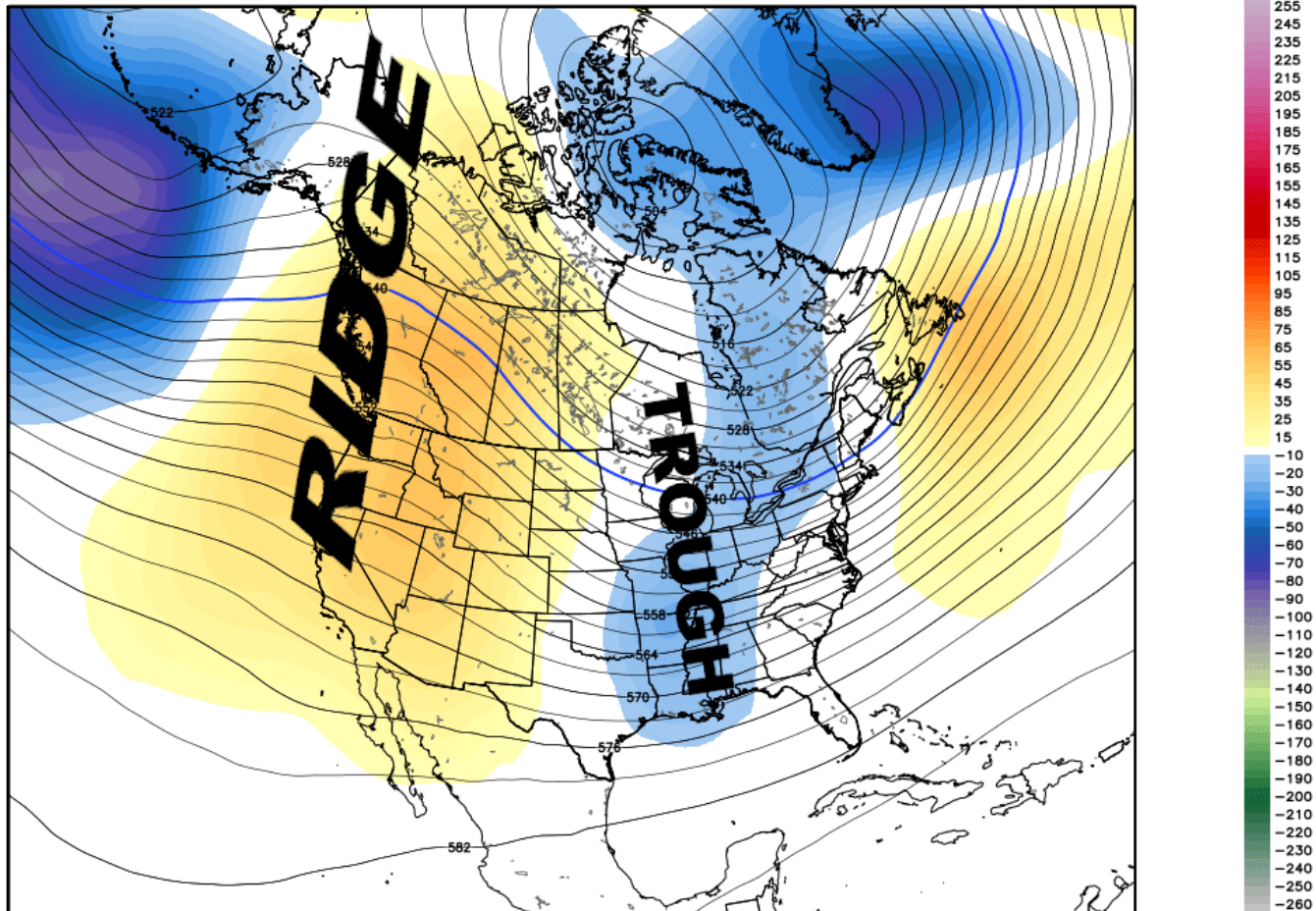


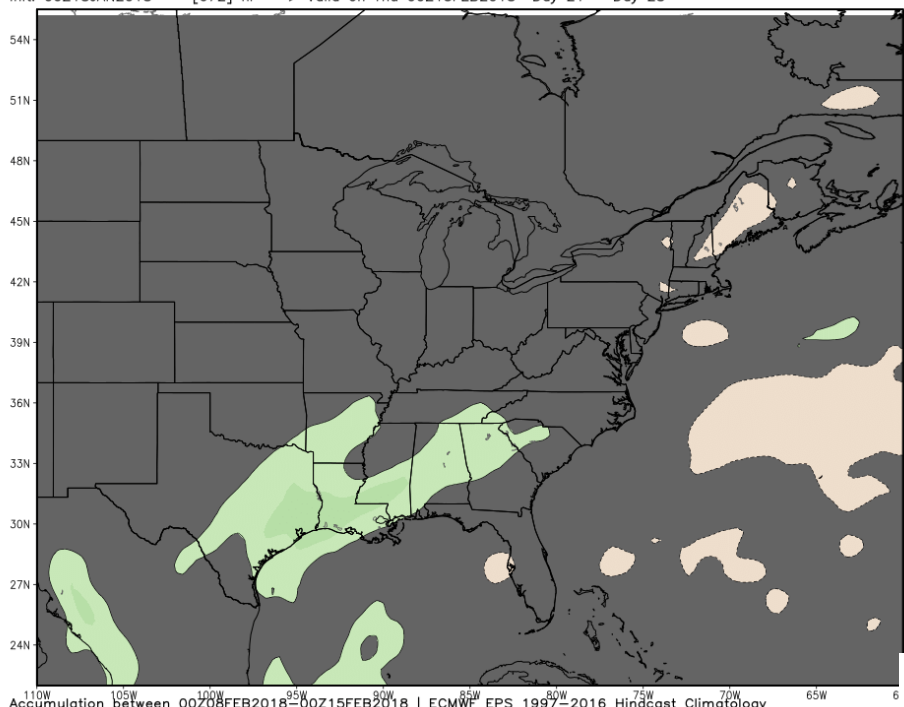
COLD AGAIN FEB 20-22... STORMY FOR MIDWEST / EAST COAST

ECMWF EPS Monthly Ensemble Mean 500 hPa Geopotential Height [dm] & Anomaly [m]

INIT: 00Z18JAN2018 fx: [840] hr --> Thu 00Z22FEB2018

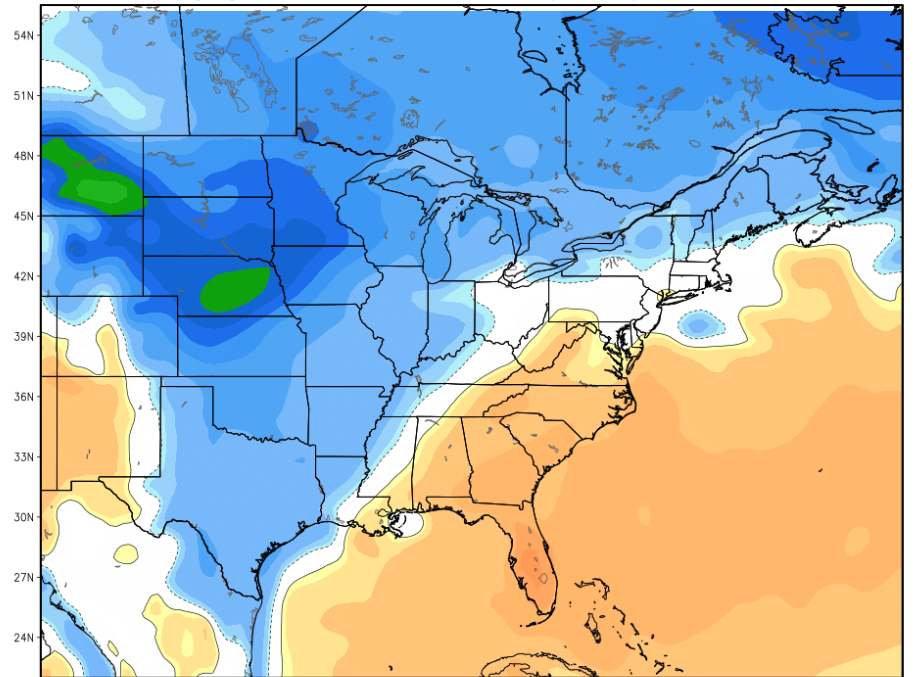
Min|Max: -91.1 | 62.9 m



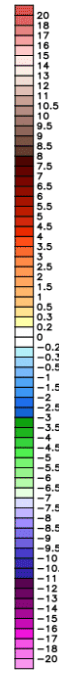


Accumulation between 00Z08FEB2018-00Z15FEB2018 | ECMWF EPS 1997-2016 Hindcast Climatology

EURO WEEKLIES FEB 9-15... WET OVER DELTA DEEP SOUTH ... COLDER OVER PLAINS MIDWEST



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

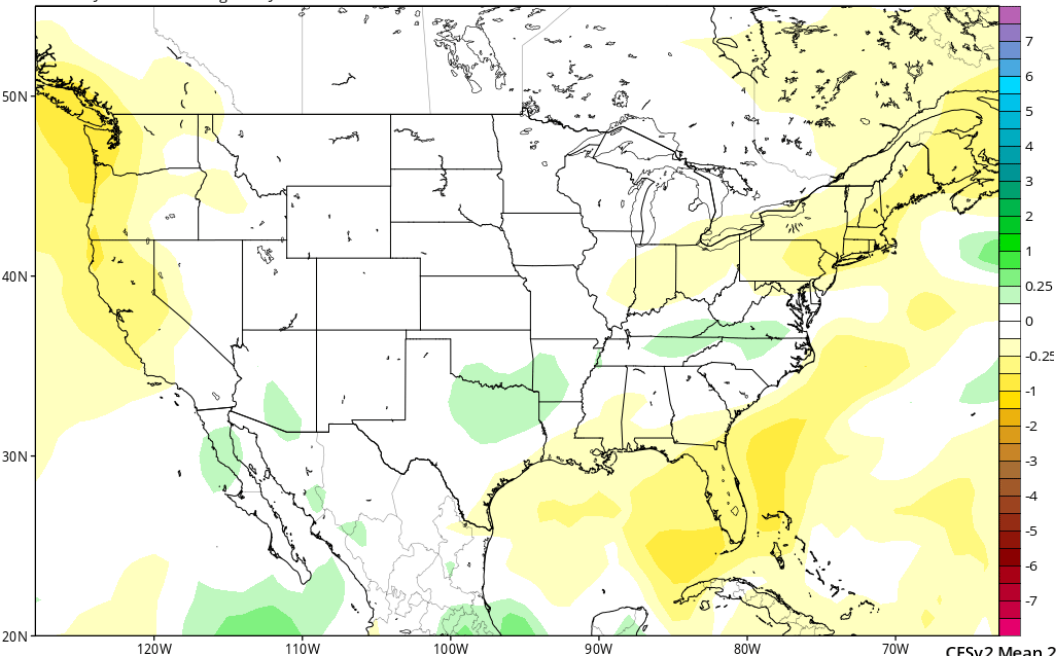


CFSv2 Accumulated Precip. Anomaly (in) from 00z09Feb2018 to 00z16Feb2018 (Days 22-28)

Average of last 48 forecasts (12 runs x 4 members)

Init: 06z Jan 16 2018 through 00z Jan 19 2018

TROPICALTIDBITS.COM



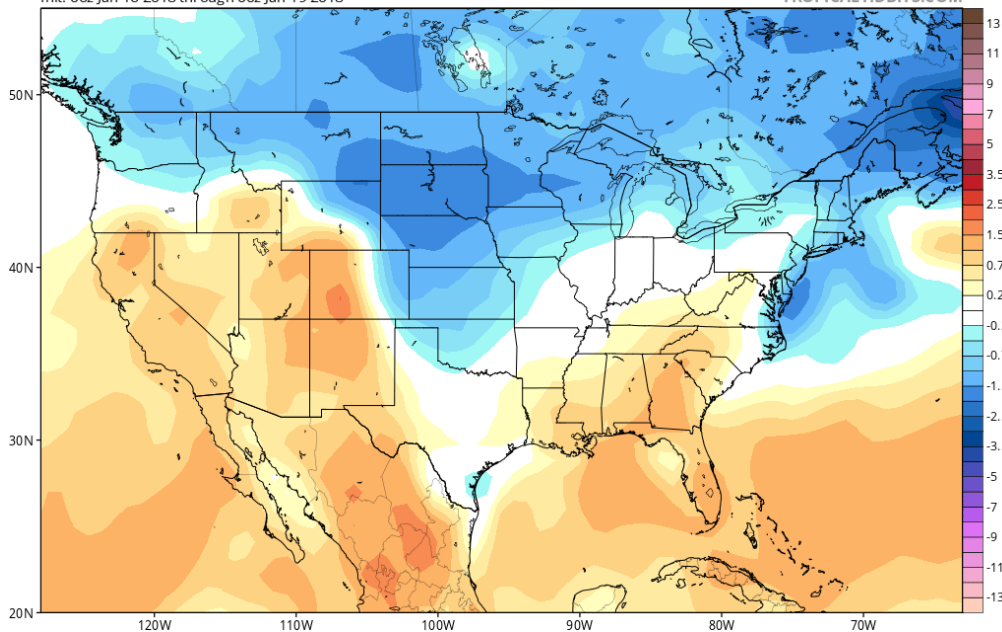
**CFS WEEKLIES FEB
9-15... WET OVER DEEP
SOUTH COLDER
OVER PLAINS WCB**

CFSv2 Mean 2m Temperature Anomaly (°C) from 00z09Feb2018 to 00z16Feb2018 (Days 22-28)

Average of last 48 forecasts (12 runs x 4 members)

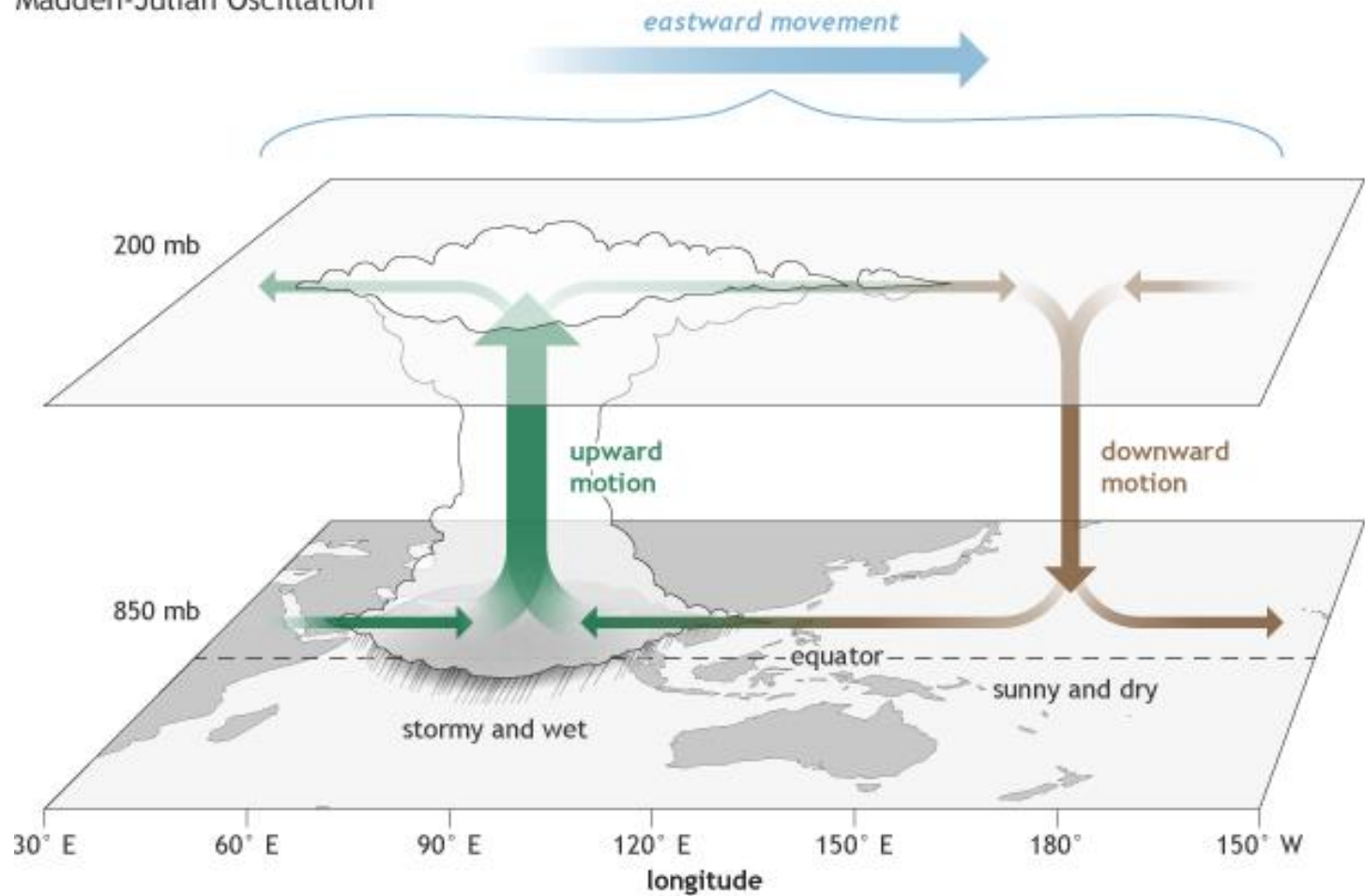
Init: 06z Jan 16 2018 through 00z Jan 19 2018

TROPICALTIDBITS.COM

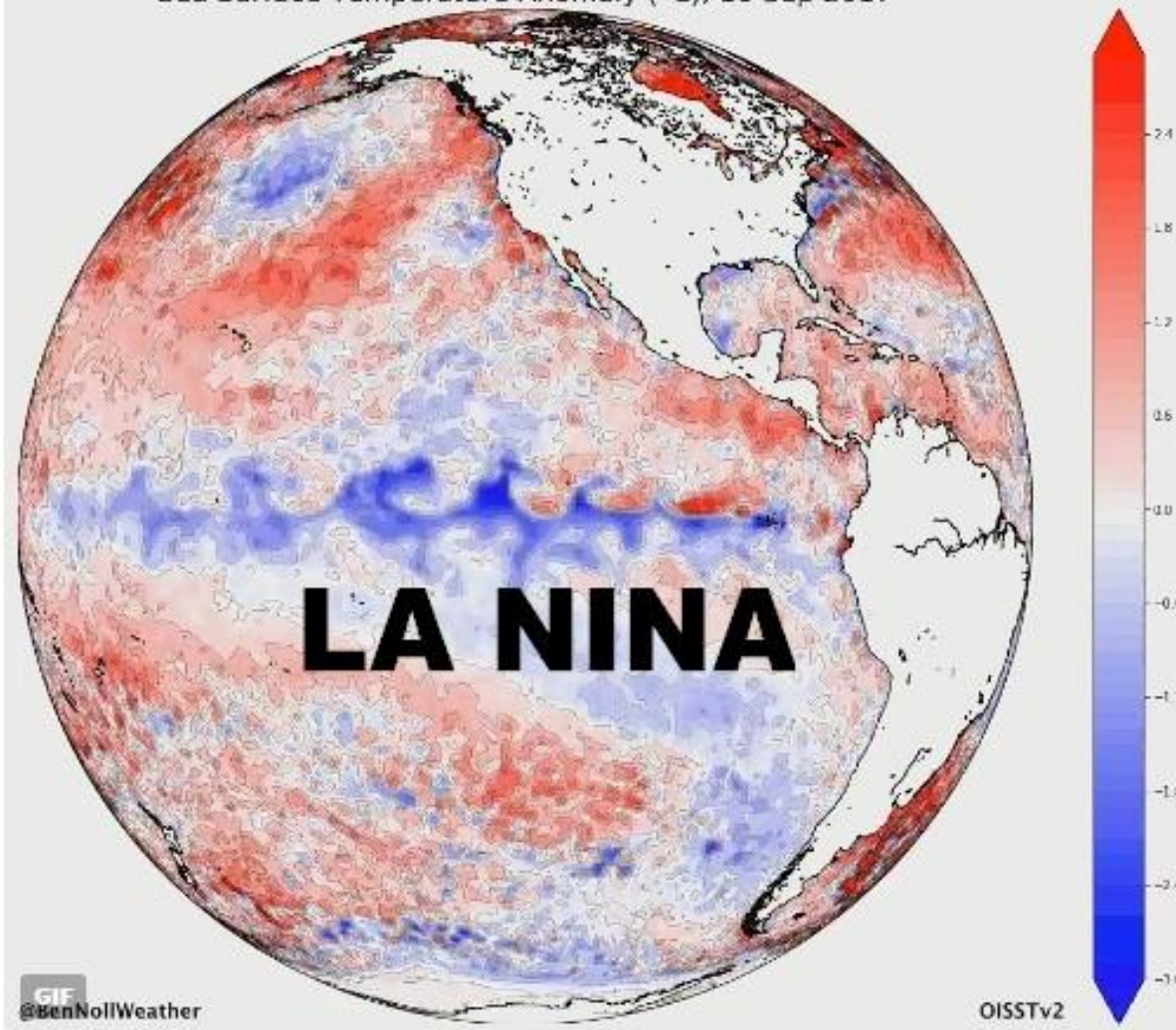


LETS TALK MJO/ENSO

Madden-Julian Oscillation

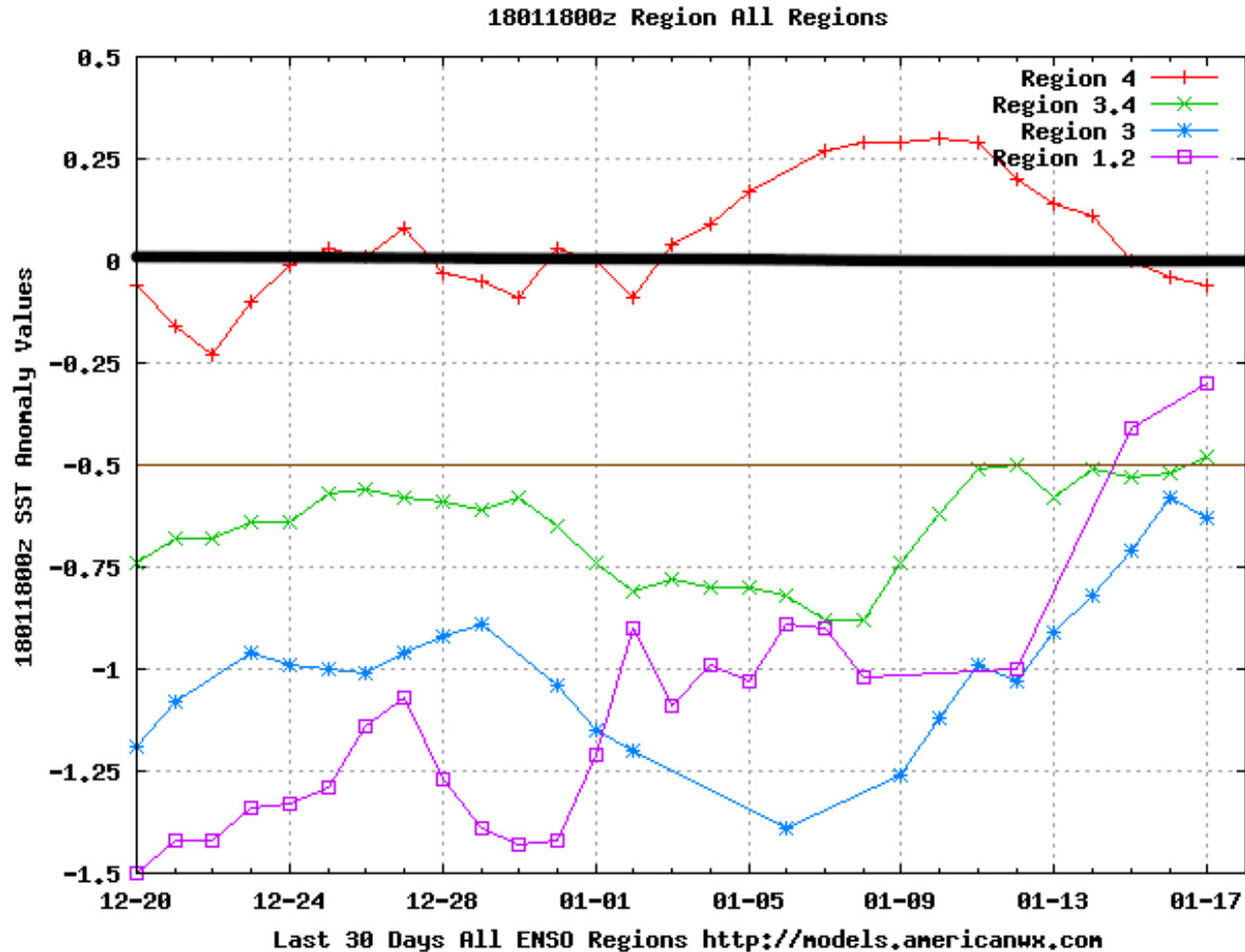


Sea Surface Temperature Anomaly (°C), 10 Sep 2017

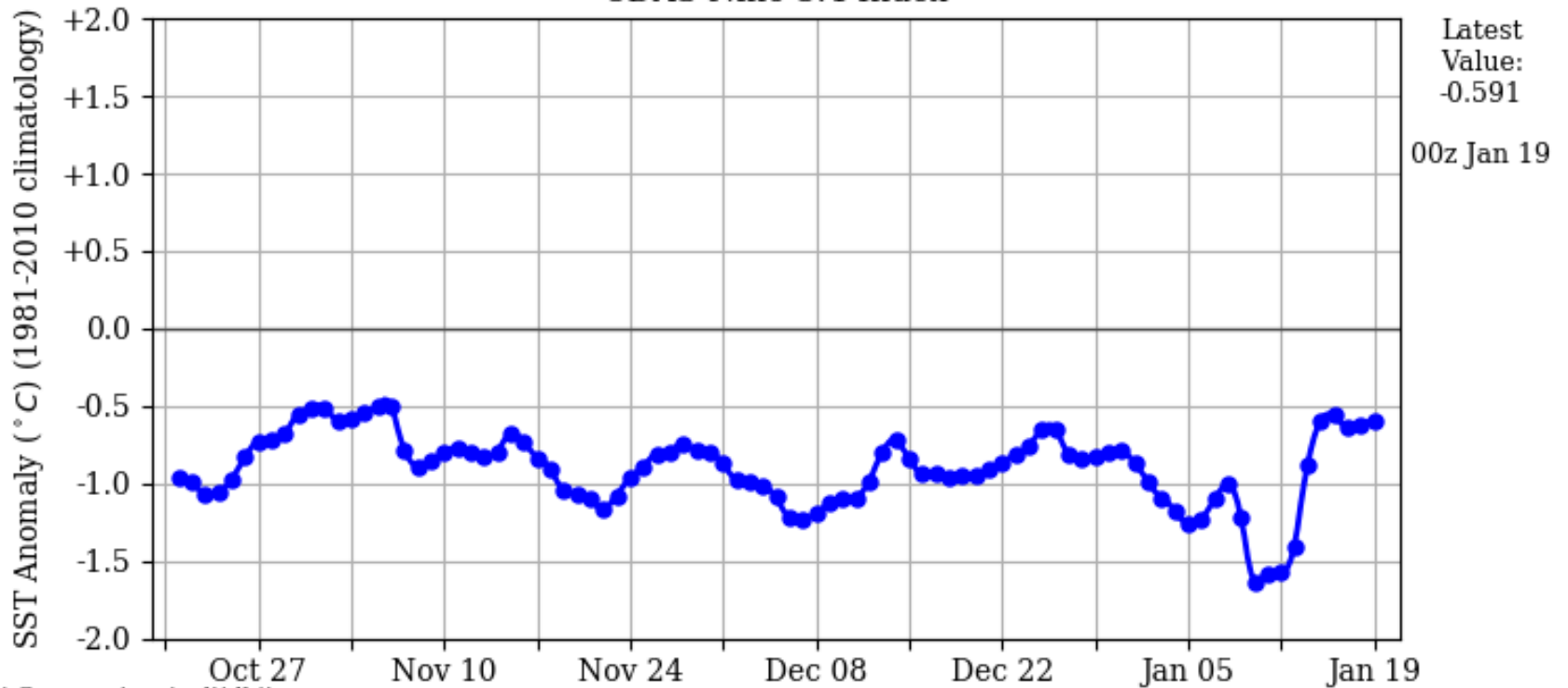


6:29 AM - 13 Sep 2017

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



CDAS Niño 3.4 Index

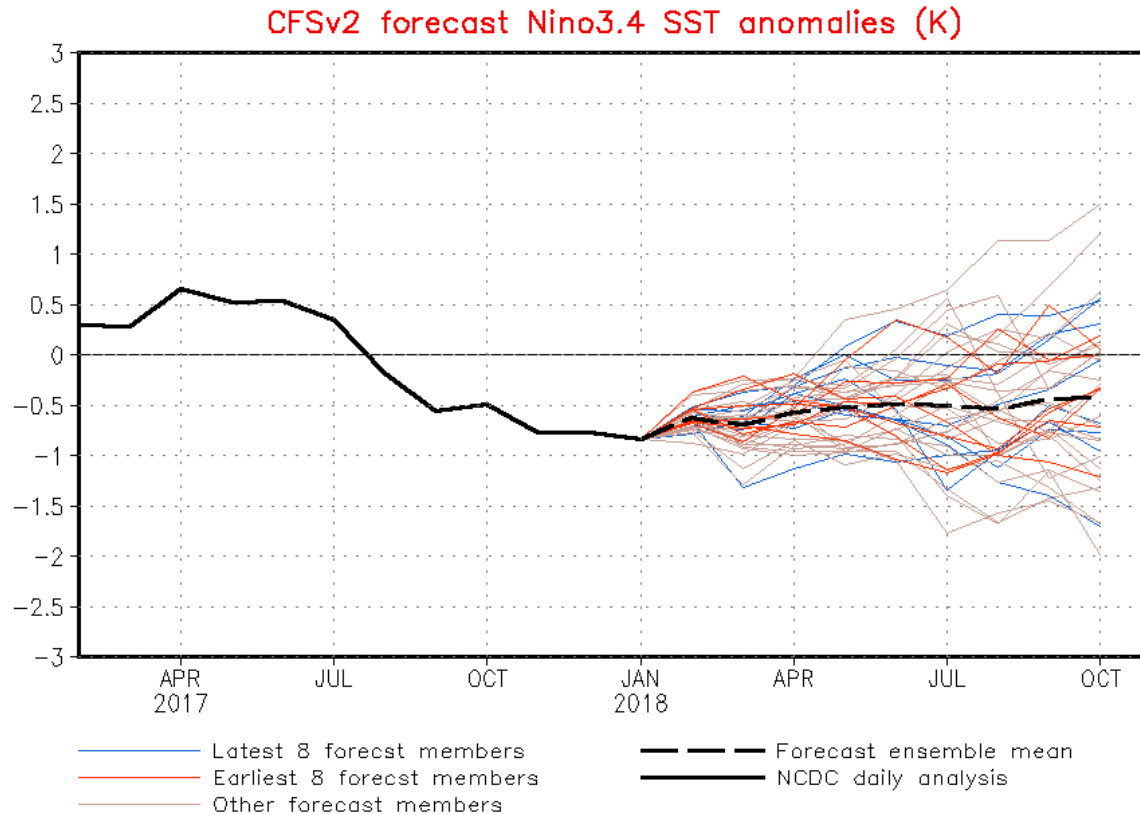


LATEST CFS MODEL PROJECTION = ** La Nina NEVER reaches threshold for MODERATE but stays weak into APRIL... Prolonging dry pattern into at least part of SPRING 2018

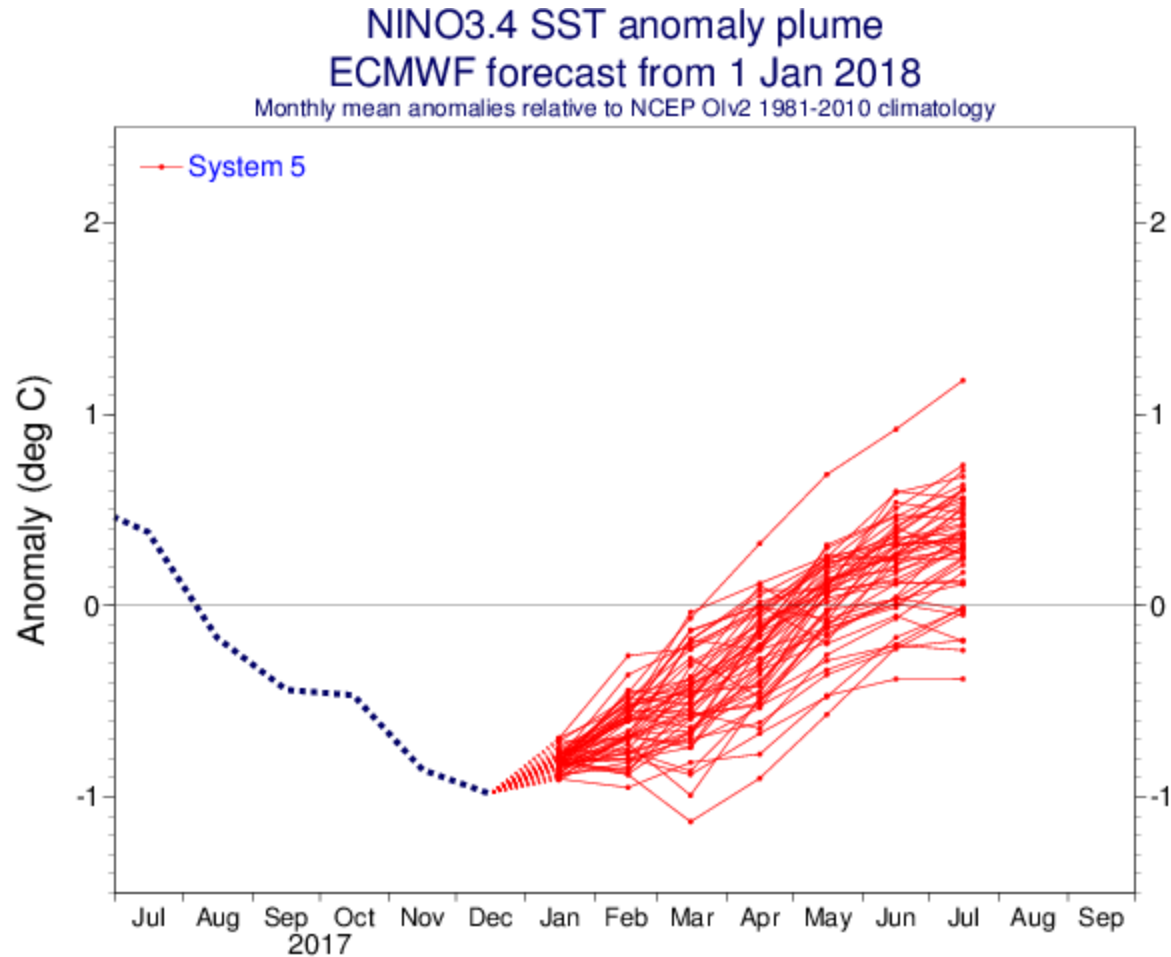


NWS/NCEP/CPC

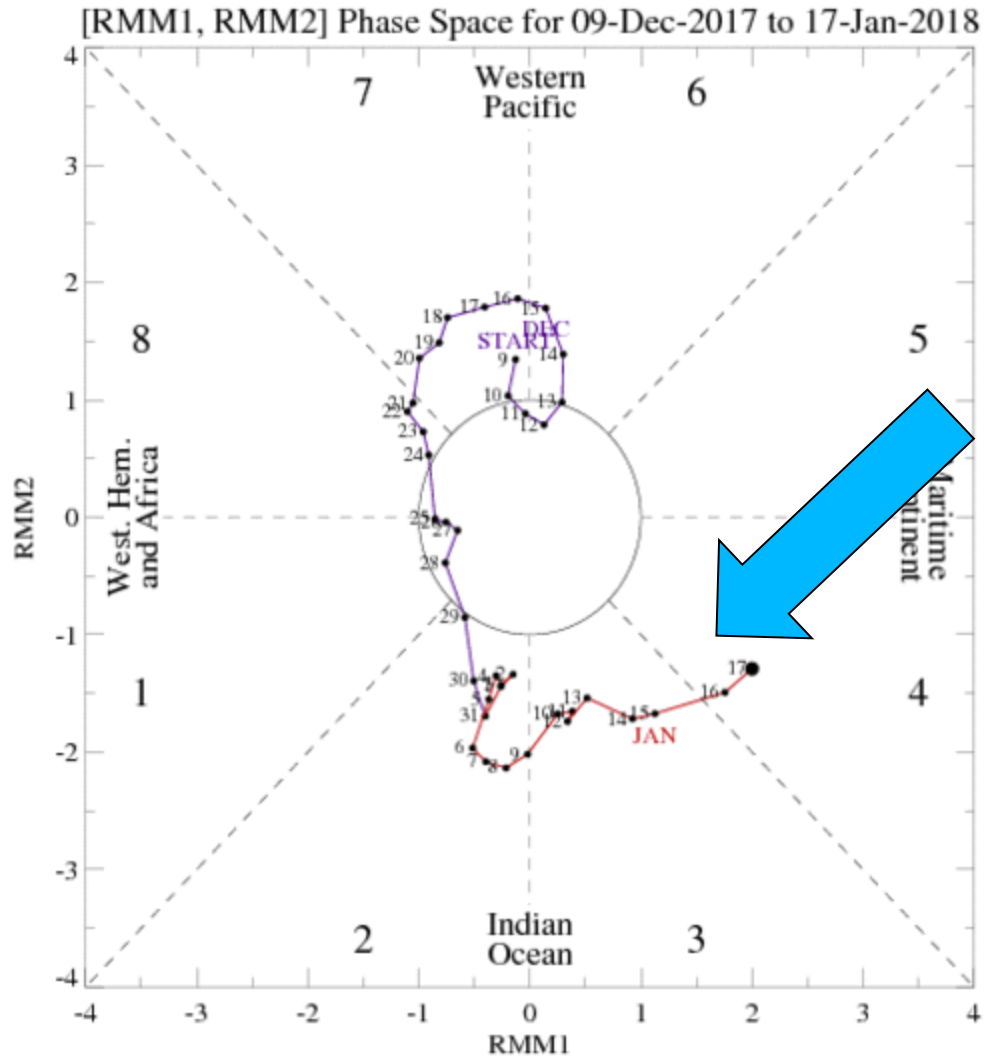
Last update: Wed Jan 17 2018
Initial conditions: 28Dec2017-6Jan2018



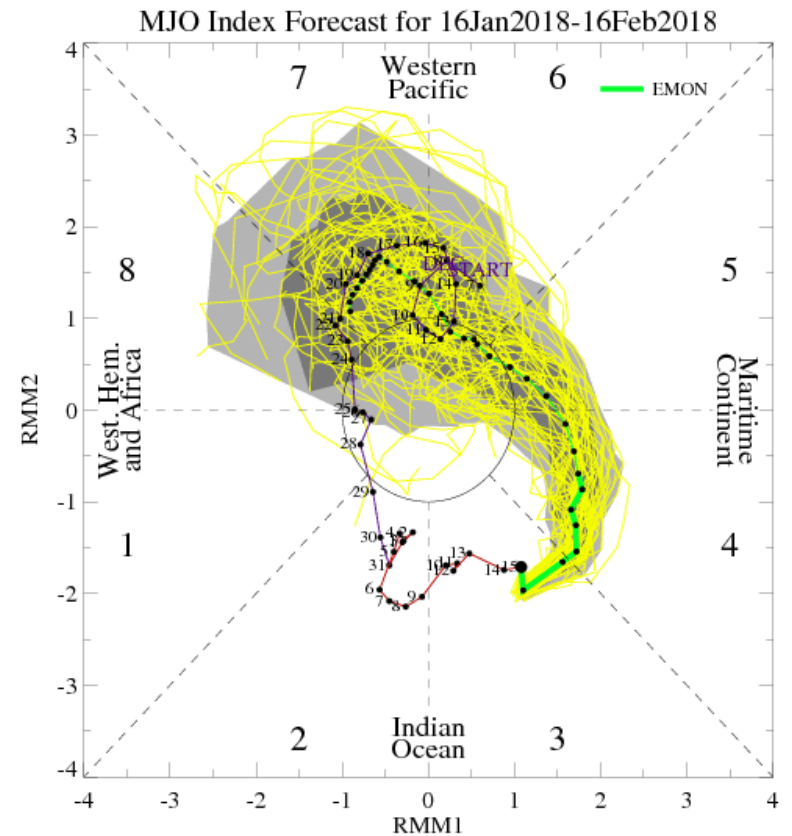
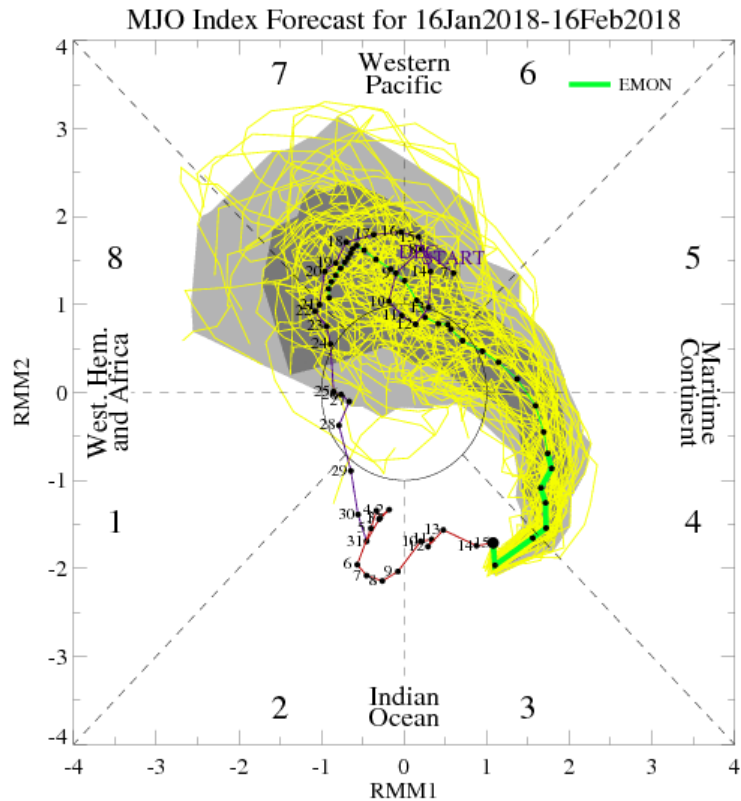
ECMWF ENSO PLUMES ... Weakenig La Nina ...NEUTRAL by APRIL / MAY



MJO IS IN PHASE 4

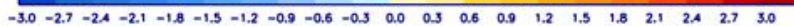
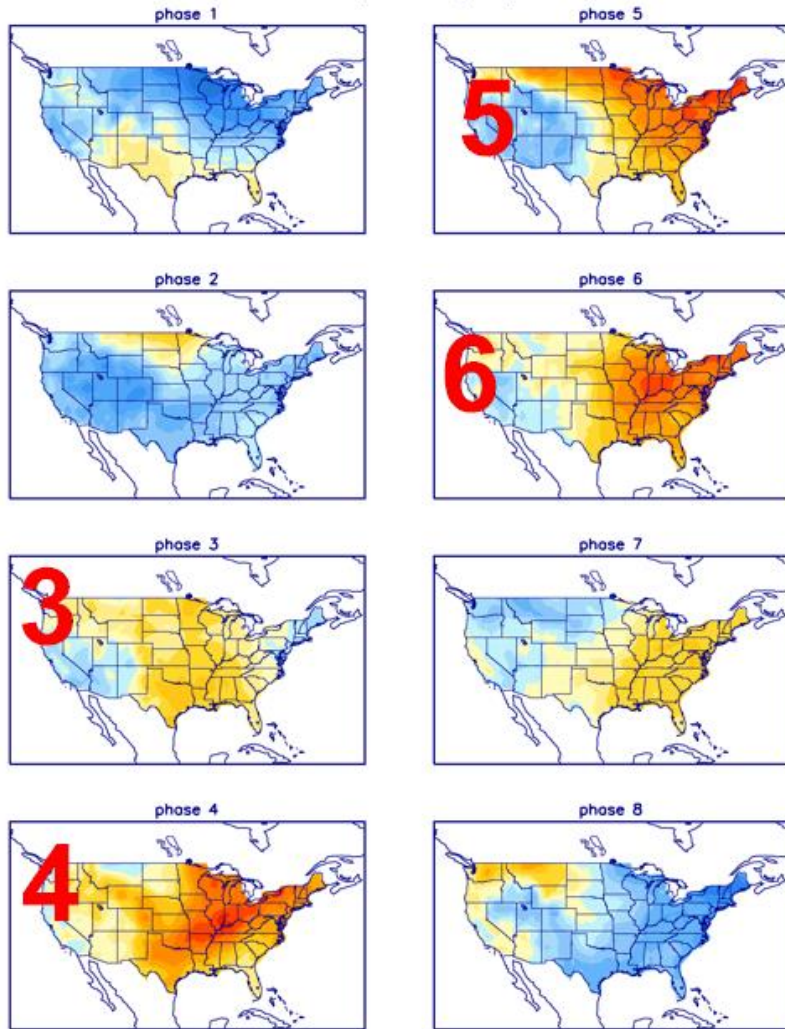


MJO PHASE MOVES BACK OUT ..INTO PHASE 5 AND 6 BY MID / LATE JAN ... And PHASE 7 by EARLY FEB...



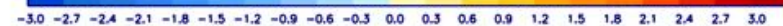
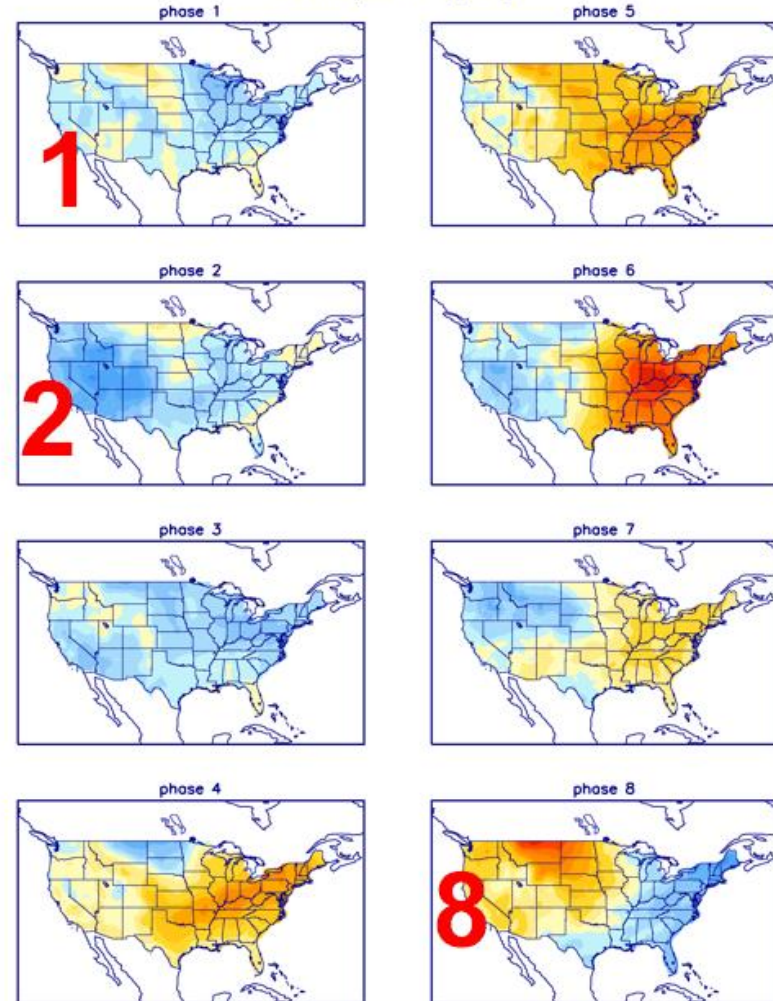
JANUARY

T composites (DJF)



FEBRUARY

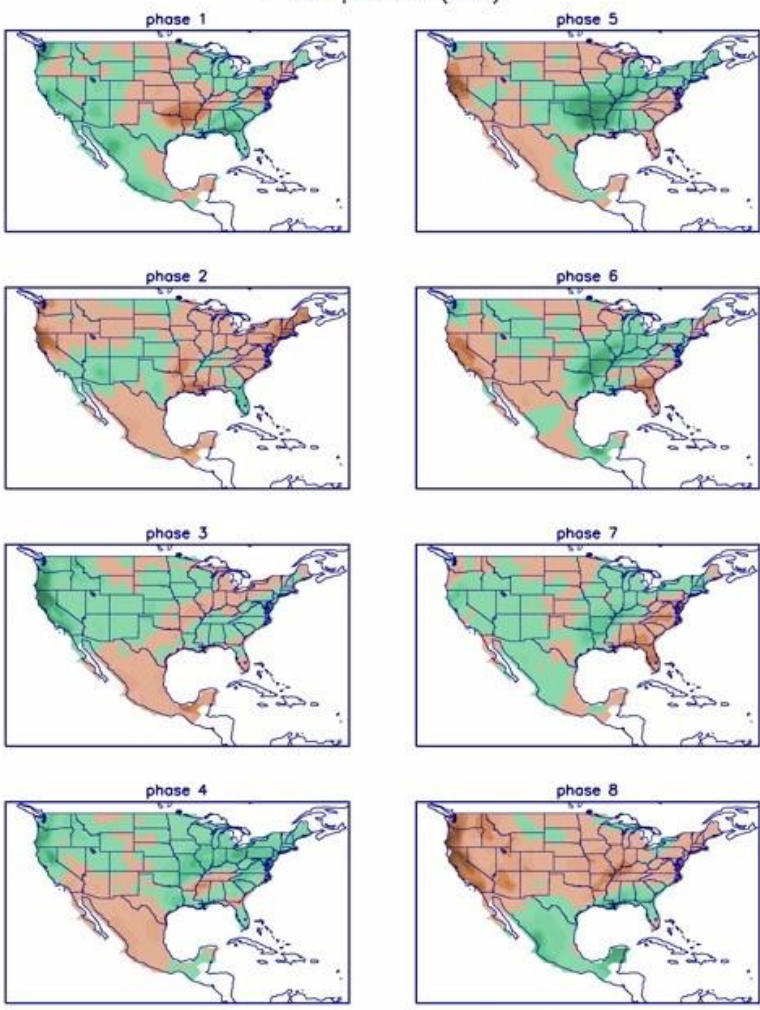
T composites (JFM)



IN JAN PHASE 4 5 6 WET OVER PLAINS MIDWEST DEEP SOUTH

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

P composites (DJF)



P composites (JFM)

