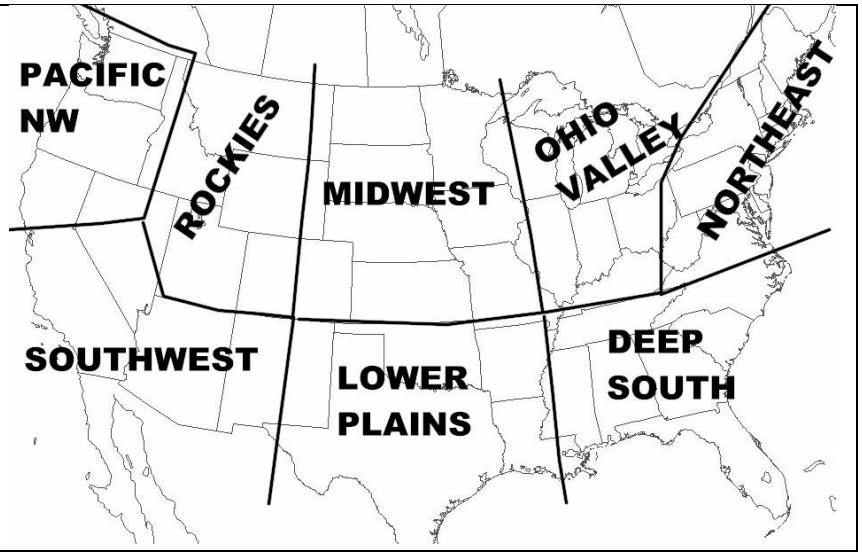
WxRisk.com Weather Forecasting For Traders, Investors, and Businesses

CONUS ENERGY 11/9/17

MBN= Much Below Normal BN= Below Normal NN= Near Normal AN= Above Normal MAN= Much Above Normal
+ High Confidence - Low Confidence Italicized= MAJOR change from previous

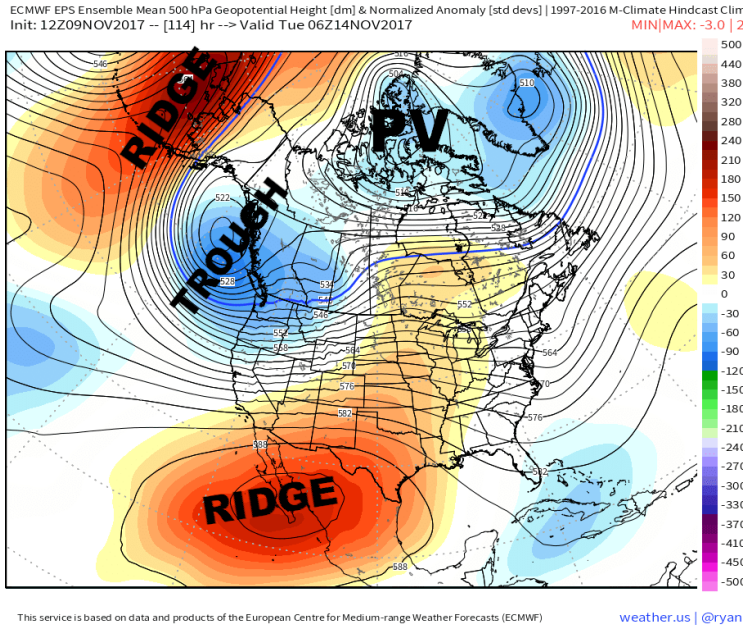
ZONE	1-5D	previous	6-10D	previous	11-5D	previous
PACIFIC NW	BN	MBN	NN	BN	AN	AN
SOUTHWEST	AN	AN	AN	MAN	AN	MAN
ROCKIES	MAN	MAN	AN	NN	AN	NN
MIDWEST	BN	MBN	MBN	BN	NN	BN
L.PLAINS	MAN	AN	NN	AN	NN	AN
OHIO VALLEY	BN	BN	BN	BN	BN	BN
DEEP SOUTH	BN	NN	BN	NN	BN	NN
PACIFIC NW	BN	NN	BN	NN	BN	BN

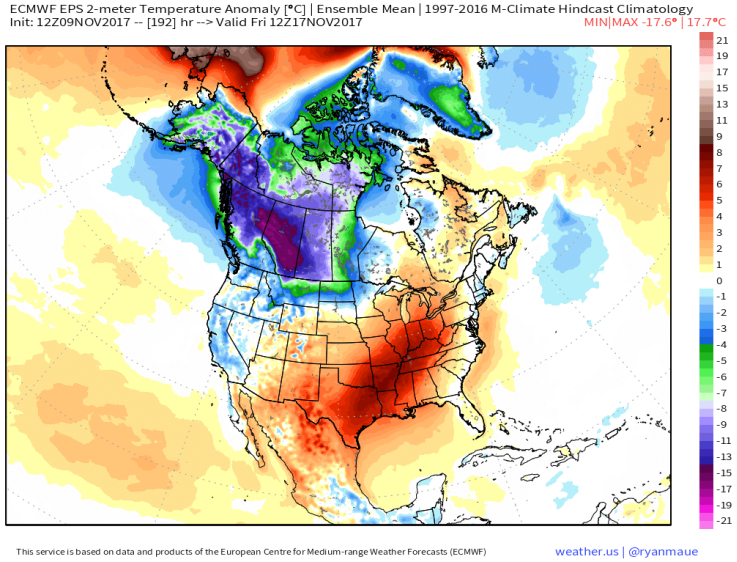


DISCUSSION

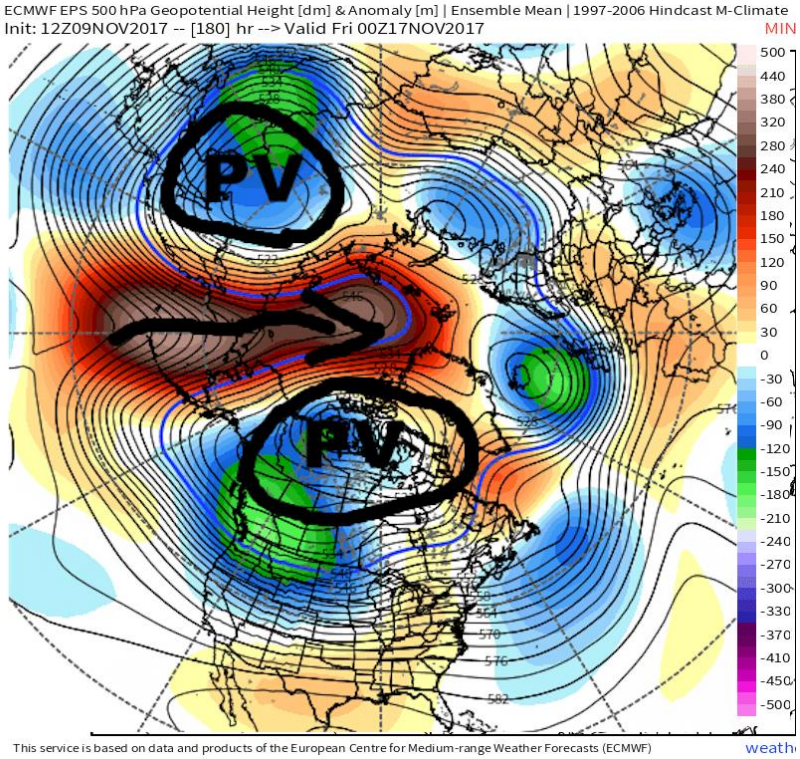
The first serious cold blast of the cold season is about to descend across the Midwest and the East Coast. Wxrisk has been talking about this outbreak since October 25 and in this particular instance some of the model data as well as the other Tele- connections strongly indicated sort of significant cold air outbreak was coming. Initially however the various 11-15 day models from late October did not support any cold air outbreak. Only the various Teleconnections and other atmosphere indicators hinted at a significant trough in the eastern CONUS with a a potential blast of December like cold temperatures.

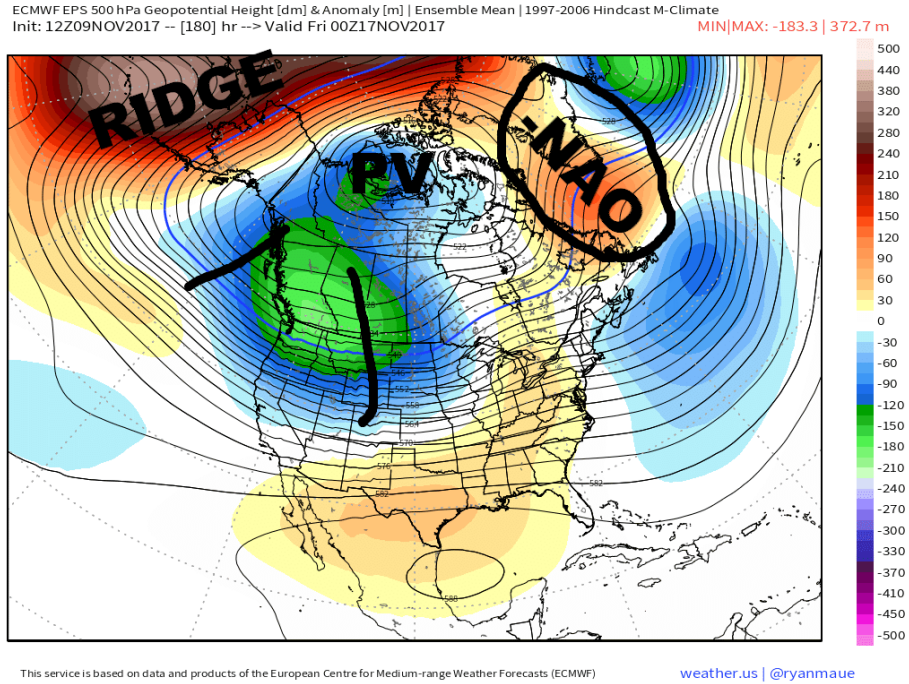
There will be a reinforcing cold front and upper trough that swings through the Midwest and the East Coast on November 12 and 13 which will reinforce the BN /below normal temperatures for a few more days. That being said this cold blast is not going to last. Building warmth over the Rockies ...southwestern states ...will spread into the Midwest early next week and eventually into the Ohio Valley and East Coast by November 16-17.





The overall pattern continues to feature a strong positive anomaly or ridge centered over the Bering sea- the area between far eastern Siberia and Western Alaska. The position of this positive anomaly Teleconnects - that is forces the atmosphere to develop a deep trough over British Columba and the Pacific Northwest. We can see that on the 120 hrs 500 mb maps from the various weather models. The persistent deep trough over the Pacific Northwest Teleconnects to a fairly strong ridge over the eastern half of the CONUS. This in turn should send temperatures either to Near Normal/ NN or AN/ Above Normal levels in the 6-10D and 11-15D. However in this case something rather unusual appears to be happening over the Arctic region.



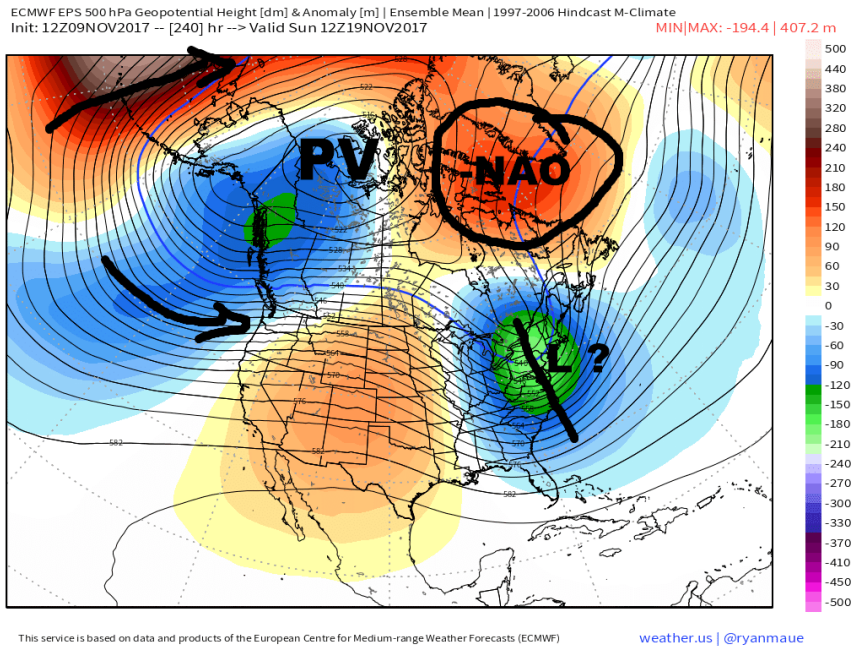


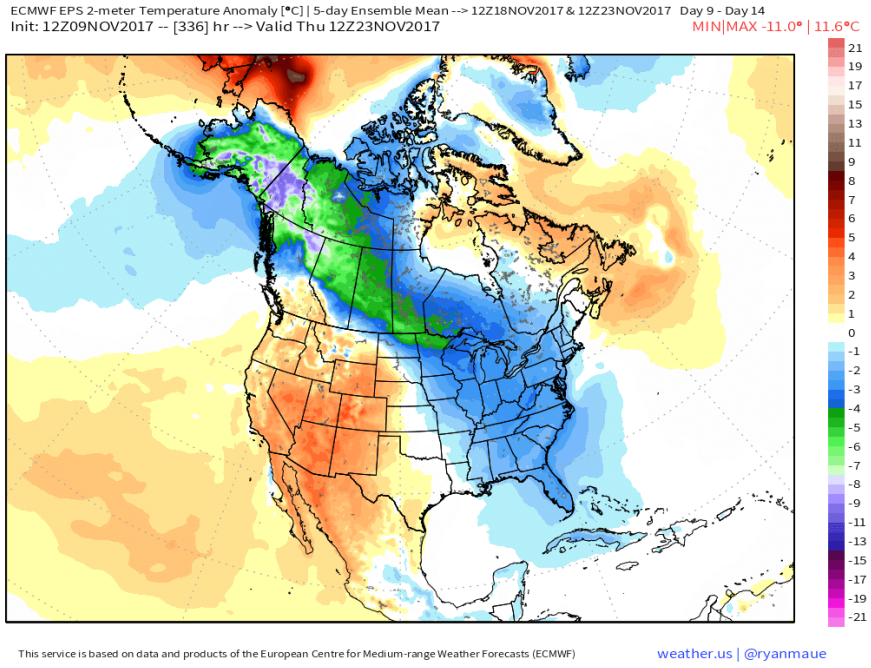
The strong positive anomaly/ ridge over the Bering sea expands northward into the Arctic region NOV 14-18. This expansion of the Bering Sea ridge into the Arctic region does two important things.

1. The Mid and upper levels of the atmosphere warm significantly (500mb 300mb 200mb). This causes a blocking pattern to form over Greenland (-NAO) .

2. The intensification of a massive Polar Vortex centered over Northwest Canada. This will allow for the development of a significant pool of Arctic air to develop over Western Canada as we move into late November and early December..

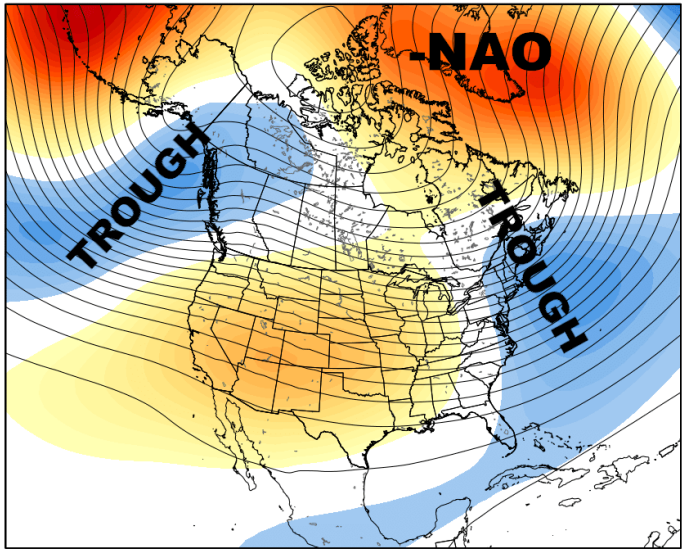
A piece of energy will get ejected from the Base of PV over southwest Canada but instead of a tracking east along or close to the U.S. Canada border ...the blocking pattern over Greenland will force is featured to drop southeast into the Midwest and New England states. This may allow for a significant early season winter storm over the Great Lakes and New England on November 19-20. Behind this strong developing potential significant early season winter storm for New England... will be a another blast of cold air. This intensifying LOW pressure area over New England will grab the Arctic air building over western and southwestern Canada and pull southward after November 20. As a result the eastern half the country will see either Below Normal / BN or Much Below Normal/ MBN temperatures-- depending on how strong the New England Low is and the overall pattern as we move into Thanksgiving week.





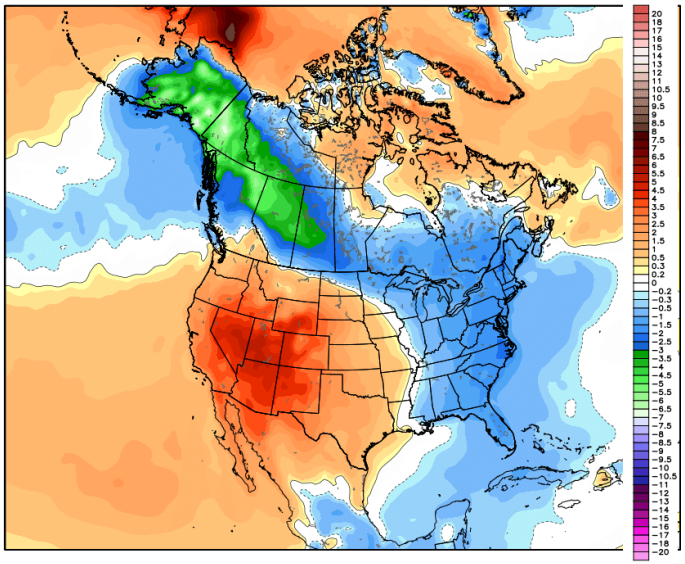
Looking at the 16 to 20 day the Cfs model has done a complete flip flop and once again now shows a mild interval developing over much of the central and eastern CONUS during the last week of November. This is a complete change from what this model was showing only two days ago. The European weekly models have come out on this Thursday evening and they continue to show much more consistent and reasonable looking solution. The last week of November looks seasonally cold east the Mississippi River and seasonally warm over the Rockies and southwestern states. The blocking pattern over Greenland remains pretty strong on the upper air maps but the trough over Northwest Canada and Alaska still remains in place. Until this feature moves out of the way there is little chance of getting a deep or strong ridge on the West Coast that would really plunge winter like temperatures into the central and eastern U.S.. There is some indication from the European weeklies that that may happen by mid December but right now this is mostly speculation.

ECMWF EPS Ensemble Mean 7-day Avg 500 hPa Geopotential Height Anomaly [m] Min|Max: -59.4 | 141.1 m
Init: 00Z09NOV2017 -- [504] hr --> Valid on Thu 00Z30NOV2017 Day 14 - Day 21



Average between 00Z23NOV2017-00Z30NOV2017 | ECMWF EPS 1996-2015 Hindcast Climatology

ECMWF EPS Ensemble Mean 7-day Avg 2m Temperature Anomaly [°C] Min|Max: -9.0° | 8.7°C
Init: 00Z09NOV2017 -- [504] hr --> Valid on Thu 00Z30NOV2017



Average between 00Z23NOV2017-00Z30NOV2017 | ECMWF EPS 1997-2016 Hindcast Climatology

MAN AN NN BN MBN