



## WEEKLY PETROLEUM SUPPLY-DEMAND TRENDS

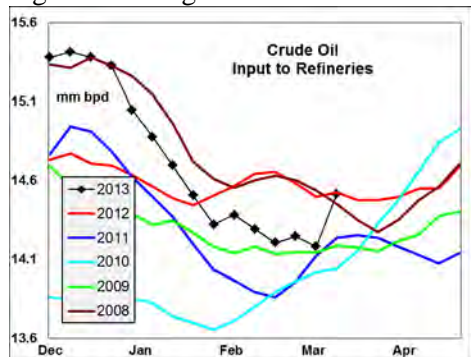
### A Fundamental Petroleum Trends Weekly Report

Lehi German Tel: 816.505.0980 [www.fundamentalpetroleumtrends.com](http://www.fundamentalpetroleumtrends.com) Wednesday, March 20, 2013



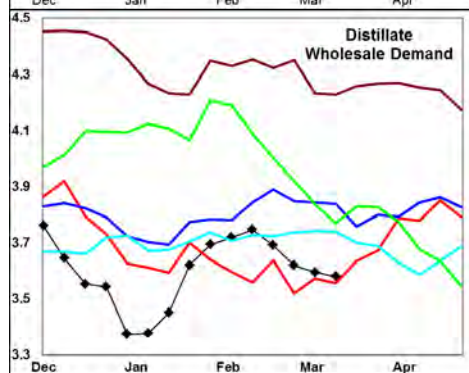
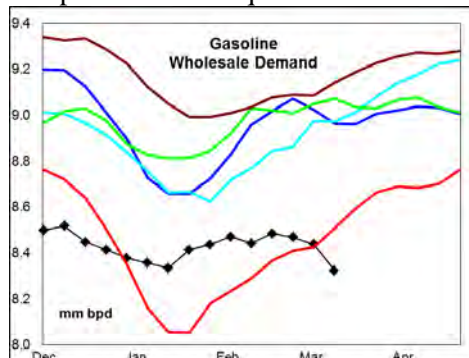
#### Major Fundamental Trends<sup>1</sup>

Crude oil input to refiners increased +0.5 million bpd last week, with runs higher in all regional markets.



Higher crude oil runs did not result in an increase in finished product output for the week, with gasoline production down -0.4 million bpd and middle distillates up only +136,000 bpd. Look for a rebound in transport fuel production next week, due to the increase in crude oil thru put.

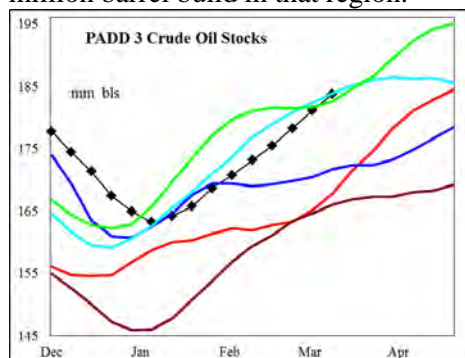
Year-on-year growth in gasoline and distillate demand has slowed compared to the 1<sup>st</sup> quarter rate.



As a result, 4-wk stock draws in regional markets East of the Rockies

have also slowed to levels less than the last 3-years. A continuation of these trends will improve the supply balance.

The sharp rise in crude oil refinery input and concurrent decrease in crude oil imports last week, did not drive a significant stock draw, which was -1.3 million barrels. The transition from imports to domestic supply for the Gulf region, led in part to the +2.5 million barrel build in that region.



Expect further crude oil stock builds over the next 60-days to be a downside risk to crude oil prices.

**Demand** for gasoline fell -0.3 million bpd last week while distillate increased +0.2 million bpd. Wholesale demand, measured over the last four weeks compared to a year ago: gasoline increased +1.5%; distillate was +0.1% higher; jet fuel was -2.3% lower, and residual fuel decreased -5%.

**Stocks forward coverage:** Gasoline demand coverage was unchanged on a -1.5 million barrel stock draw, offset by a -303,000 bpd drop in weekly demand. Coverage levels were near the 5-year mid range.

Distillate coverage extended the downtrend on a -0.7 million barrel stock draw and +232,000 bpd rise in weekly demand.

Jet fuel coverage decreased on a -0.6 million barrel stock draw. Coverage levels fell below the last 3-years.

Residual fuel oil coverage increased on a +1.9 million barrel stock build. The coverage level ended the week above the mid range.

**Refinery utilization** rates increased on a +520,000 bpd jump in crude oil thru

put. During the latest 4-wk period crude oil input was -243,000 bpd below a year ago.

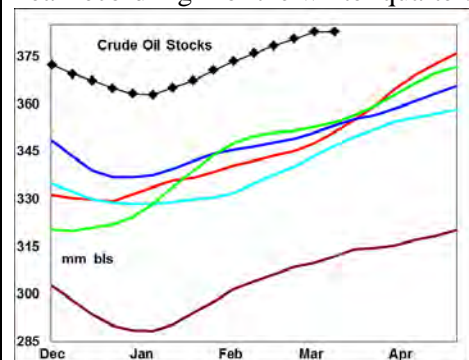
Gasoline yield % on crude oil runs fell on a -396,000 bpd drop in output compared to the +520,000 bpd rise in crude oil thru put. Yield % on crude oil runs fell to a record low.

Distillate yield % on crude oil runs decreased on a +104,000 bpd increase in output compared to the much higher crude oil throughput. The yield % on crude oil runs matched the last 2-years.

Jet fuel yield % on crude oil runs decreased on a +32,000 bpd rise in output, compared to the much higher crude oil runs. The yield % level matched the historic mid range.

**Petroleum Imports** of refined fuels and crude oil fell a combined +0.75 million bpd last week. During the latest 4-wk period crude oil imports were -1.2 million bpd below last year; distillate imports decreased -29,000 bpd; finished gasoline imports decreased -46,000 bpd, gasoline blend stock imports increased +34,000 bpd; jet fuel imports increased +21,000 bpd, while residual fuel oil imports were +24,000 bpd higher.

**Crude Oil** stocks decreased -1.3 million barrels last week, including a +2.4 million barrel build in the Gulf region. Refinery crude oil runs jumped +0.6 million bpd, while imports decreased -0.2 million bpd – pointing to a draw for the week that was below expectations. U.S. stocks ended the week +10.5% above last year and a near record high for the winter quarter.



<sup>1</sup> Source is latest EIA Weekly Statistics



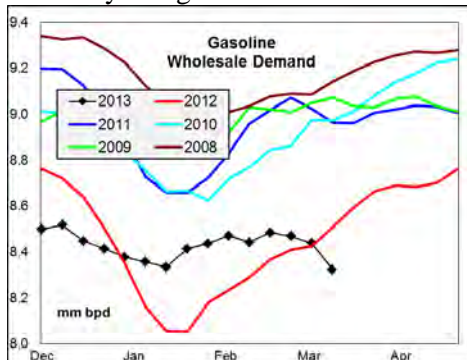
## WEEKLY PETROLEUM SUPPLY-DEMAND TRENDS

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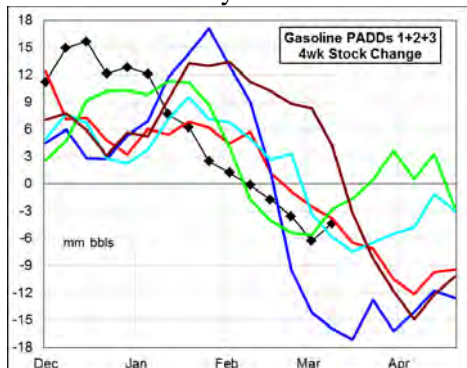
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#### Product Supply-Demand Trends

**Gasoline** wholesale demand fell -303,000 bpd on the week, to a level below last years' lows. The latest 4-wk average demand was +123,000 bpd above a year ago. Supply fell -0.7 million barrels last week, on lower production and imports. Supply for the latest 4-wk period was +31,000 bpd above a year ago.



Stocks decreased -1.5 million barrels last week, to a level near lows of the last 3-years. The latest 4-wk draw of -3.7 million barrels matched the lowest draw of the last 3-years for the week.

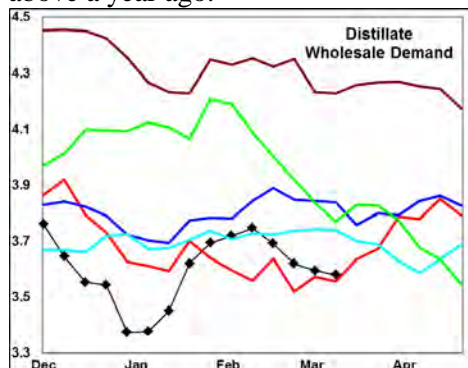


Stock levels in the Gulf region ended the week -3 million barrels below a year ago, while all other regions reported stock levels nearly unchanged year-on-year. Growth in year-on-year wholesale demand continues to slow. While weekly supply data are volatile, the latest 4-wk average is slightly above a year ago.

*With the overall market balanced, regional imbalances will be driven by spring refinery maintenance.*

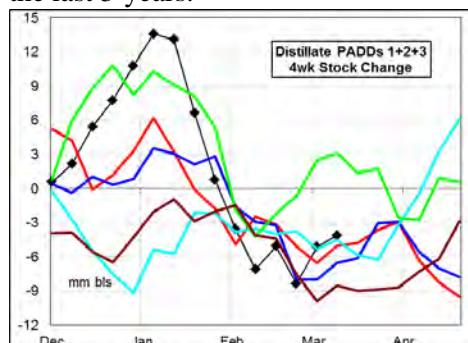
**Distillate** demand increased +232,000 bpd last week, to a level comparable to

last years' record lows. The latest 4-wk average demand was +5,000 bpd above a year ago.



Supply fell -84,000 bpd last week, on sharply lower imports. The latest 4-wk average supply was +39,000 bpd above last year. Stocks declined -0.6 million barrels on the week, to a level -12% below a year ago.

The latest 4-wk stock change in markets East of the Rockies was a -4.1 million barrel draw, a draw less than the last 3-years.



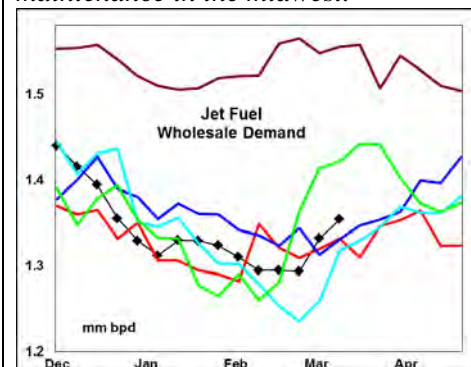
Wholesale demand and production are each tracking year ago levels. Stock levels remain well below last year and near 5-year lows.

Look for a seasonal uptrend in demand and spring refinery maintenance which should lead to continued seasonal stock draws.

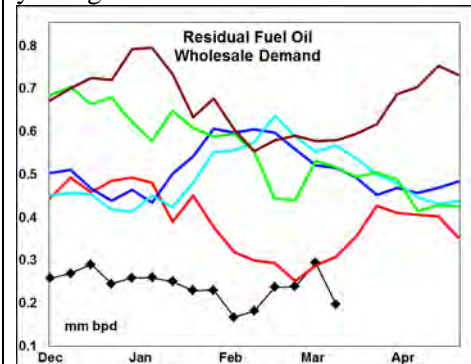
**Jet Fuel** demand decreased -40,000 bpd on the week, to a level above the last 3-years. The latest 4-wk average demand was -32,000 bpd below a year ago.

Supplies increased +42,000 bpd on the week, due to higher production. Supply for the latest 4-wk period was +47,000 bpd above a year ago. Stocks decreased -0.6 million barrels on the week, to a new record low level.

*Stock levels are particularly low in the midwest, gulf and west coast markets. Look for the supply balance to remain tight on higher seasonal demand and spring refinery maintenance in the midwest.*



**Residual fuel oil** demand fell -233,000 bpd last week. Demand for the latest 4-wk period was -15,000 bpd below a year ago.



Supply (production + imports) increased +56,000 bpd last week, on higher production. Production has climbed +250,000 bpd during the last quarter in the key Gulf region, to a record high. Stocks jumped +1.9 million barrels on the week, to a level above the 5-year mid range.

*The Gulf and Midwest have each experienced a spike in production during the 1<sup>st</sup> quarter, lifting stock levels to record highs in each region.*





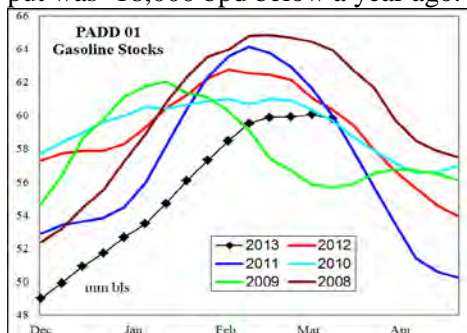
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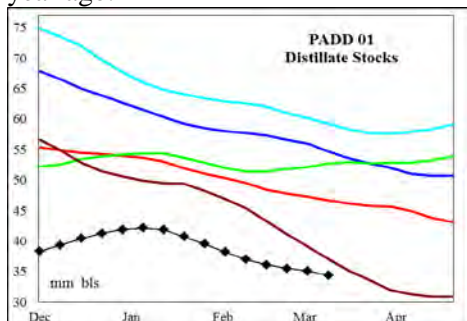
#### PADD Supply Trends

**PADD 1** refinery crude oil runs increased +51,000 bpd last week, a level comparable to the last 2-years. The latest 4-wk average crude oil thru put was -18,000 bpd below a year ago.

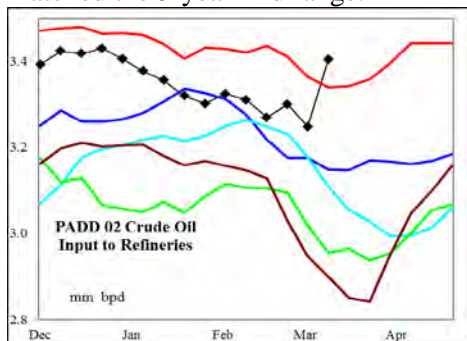


Gasoline supply fell -291,000 bpd on lower imports last week. Stocks decreased -0.1 million barrels, with the level equal to the last 3-years.

Distillate supply fell -203,000 bpd on the week due to lower imports. Stocks fell -1.6 million barrels on the week, with the level -25% below a year ago.



Jet fuel stocks increased +0.6 million barrels for the week, to a level that matched the 5-year mid range.



**PADD 2** crude oil refinery runs jumped +294,000 bpd last week, to a level above the 5-year range. Runs for the latest 4-wk period were -90,000 bpd below last year. Crude oil stocks

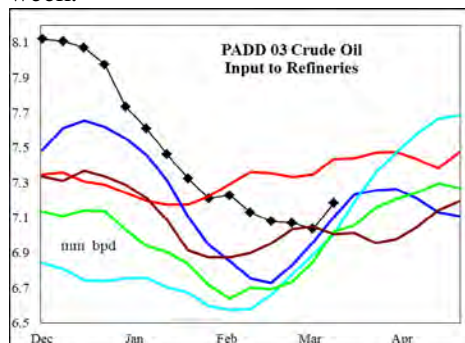
declined -1.3 million barrels on the week. Stocks ended the week +27% above a year ago at Cushing, Oklahoma.

Gasoline production increased +33,000 bpd on the week, a level above the last 3-years. Stocks increased +0.2 million barrels on the week, to a level near the historic mid range.

Distillate supply increased +5,000 bpd last week, to a level just below last years' record high. Stocks declined -0.5 million barrels last week, to a level equal to the historic mid range.

Jet fuel production remains near record low levels. Stock levels were also below the 5-year range.

**PADD 3** refinery runs increased +134,000 bpd last week, to a level above the historic mid range. The latest 4-wk average runs were -202,000 bpd below a year ago. Crude oil stocks increased +2.4 million barrels to a level that matched 5-year highs for the week.



Gasoline supply decreased -70,000 bpd last week, ending the week at a level below the last 2-years. Production for the latest 4-wk period was +35,000 bpd above a year ago. Stocks fell -0.8 million barrels, to a level above the 3-year mid range.

Distillate supply was unchanged on the week, with the latest 4-wk average +2,000 bpd above last year. Stocks increased +1.4 million barrels on the week, to a level below each of the last 3-years.

Jet fuel supply increased +10,000 bpd last week. Stocks fell -0.9 million barrels on the week, to a level below the 5-year range.

Residual fuel oil supplies increased +73,000 bpd on the week, to a new record high. Stocks increased +1.1 million barrels to a new record high.

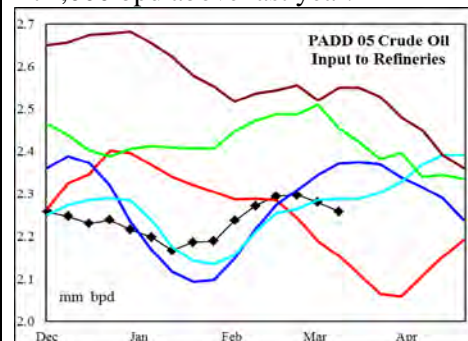
**PADD 4** refinery crude runs increased +4,000 bpd on the week to a new record high.

Gasoline production fell -53,000 bpd on the week, to a level above the 5-year mid range. Stocks increased +0.1 million barrels to a level below four of the last 5-years.

Distillate production matched last years' record high. Stocks were unchanged, at a level mid way between last years' record high and the prior year range.

Jet fuel stocks ended the week at a 5-year season record high level.

**PADD 5** crude oil refinery runs increased +37,000 bpd on the week; to a level near the 3-year average. The latest 4-wk average run rate was +74,000 bpd above last year.



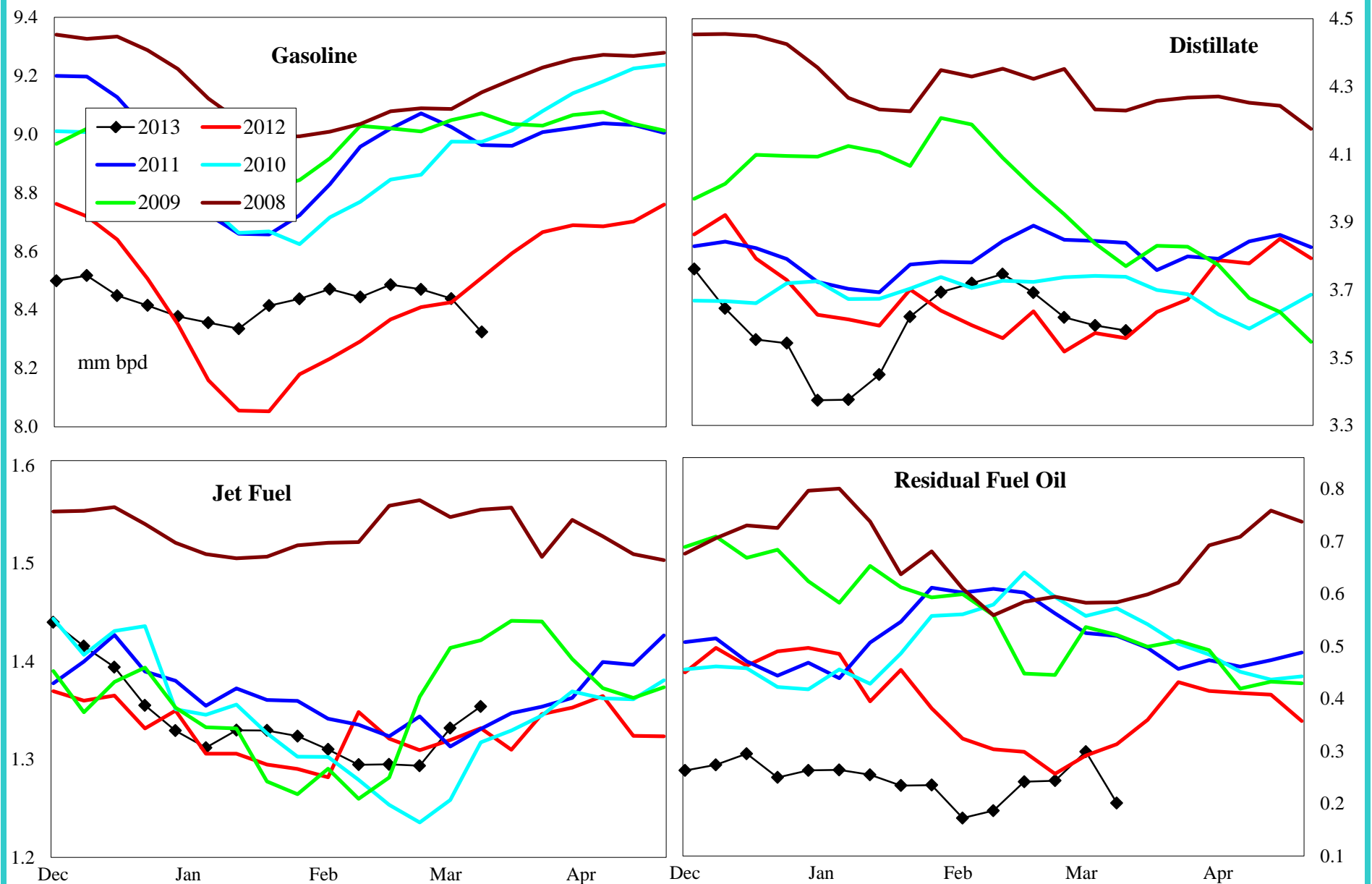
Gasoline supply increased +29,000 bpd on the week, to a level comparable with the last 2-years. The latest 4-wk average supply was -1,000 bpd below a year ago. Stocks fell -0.8 million barrels, to a level below the last 3-years.

Distillate supply increased +116,000 bpd, to a level above the 5-year range. Stocks were unchanged on the week, at a level that matched the 3-year mid range.

Jet fuel supply increased +19,000 bpd last week, to a level above the last 4-years. Stock levels fell below the 5-year range.



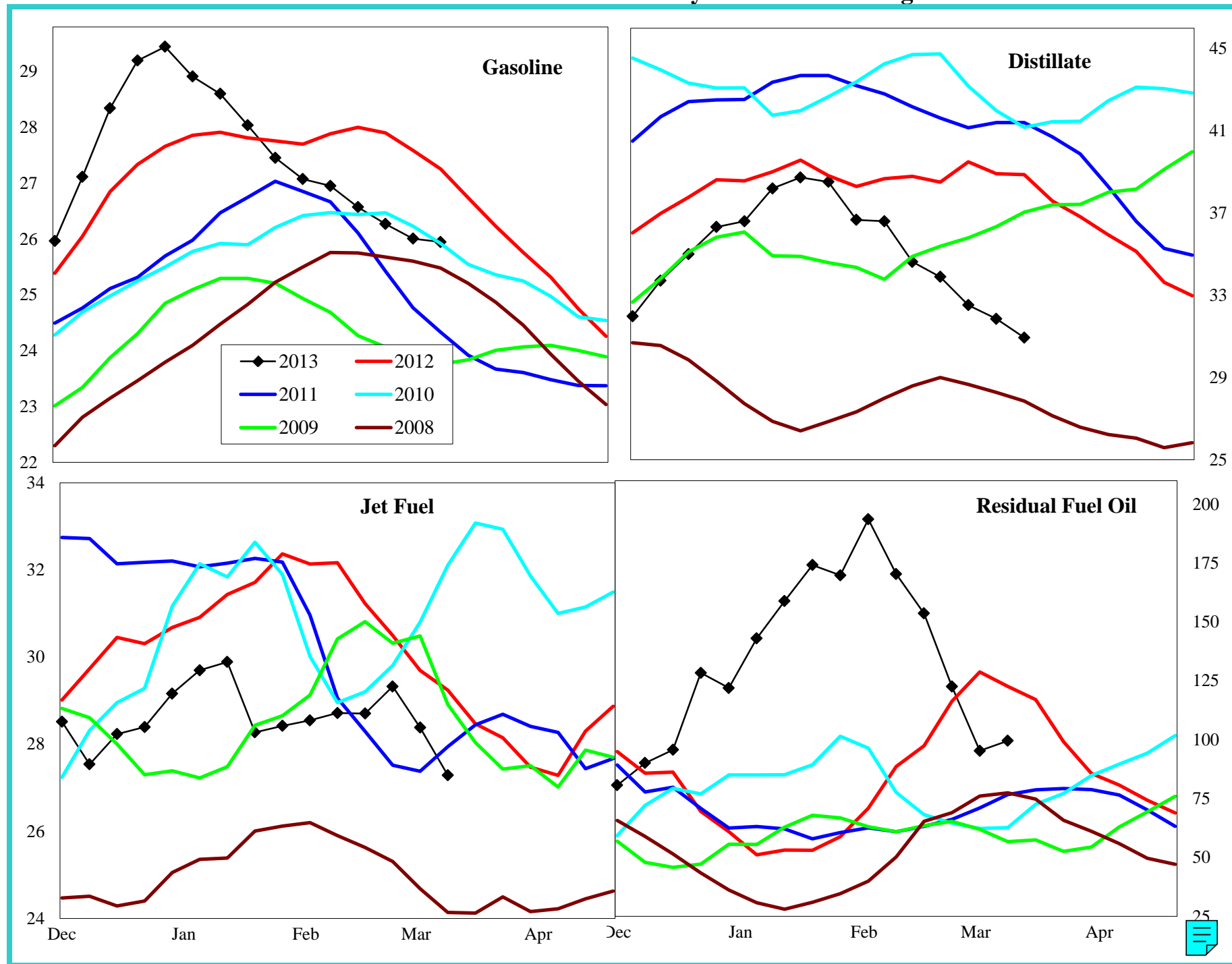
## United States Wholesale Petroleum Demand



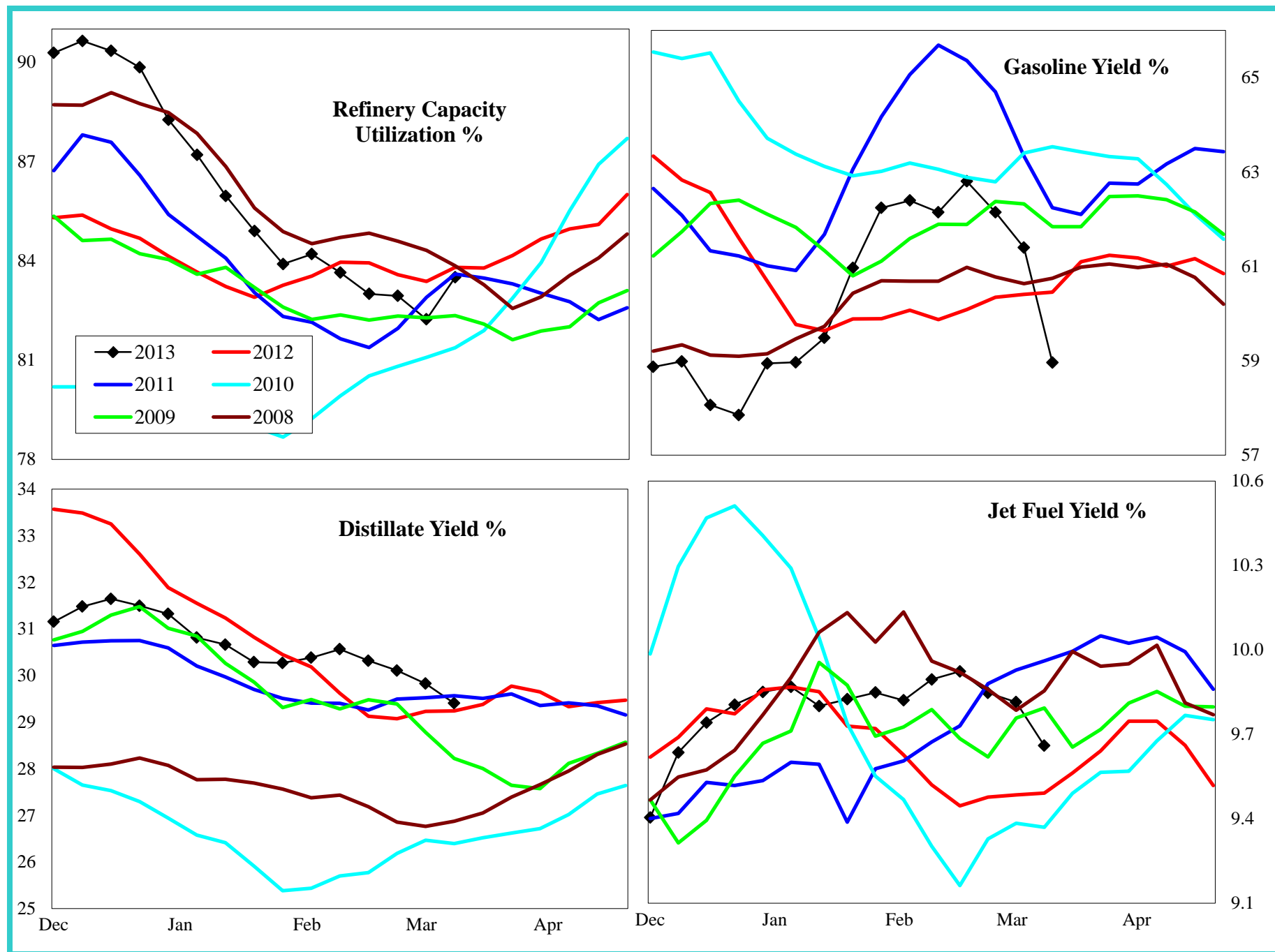
	000 bpd change from prior year				% change from prior year			
	4wk avg	Feb	Jan	Dec	4wk avg	Feb	Jan	Dec
Gasoline	123	-171	230	-244	1.5	-2.0	2.8	-2.8
Distillate	5	-203	-282	-286	0.1	-5.1	-7.4	-7.4
Jet Fuel	-32	-40	49	67	-2.3	-3.0	3.7	4.9
Resid	-15	-160	-135	-209	-4.6	-40.6	-32.1	-40.3



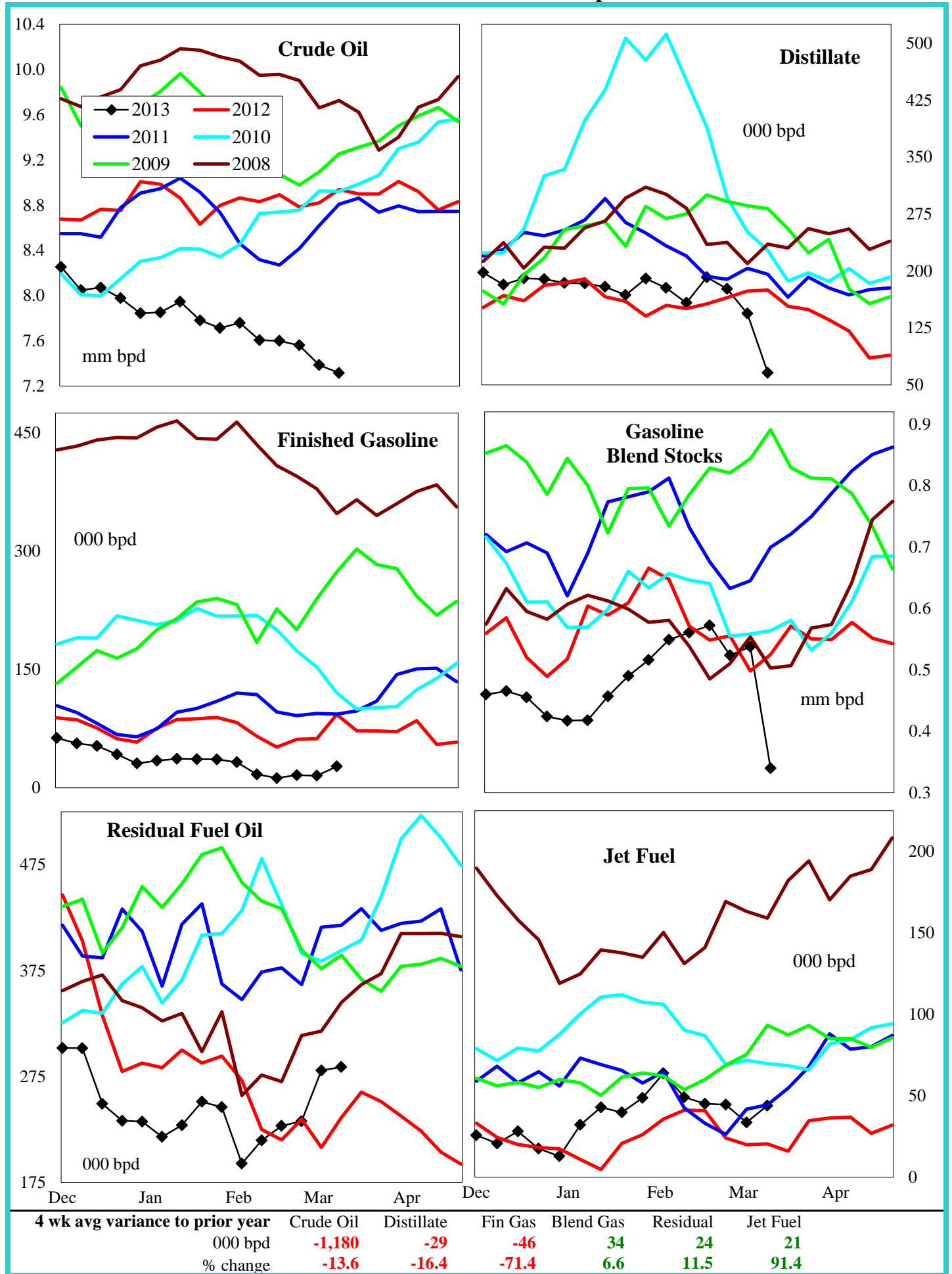
## United States Product Stocks: Days Forward Coverage



## United States Refinery Percent Utilization Rate and Product Yields

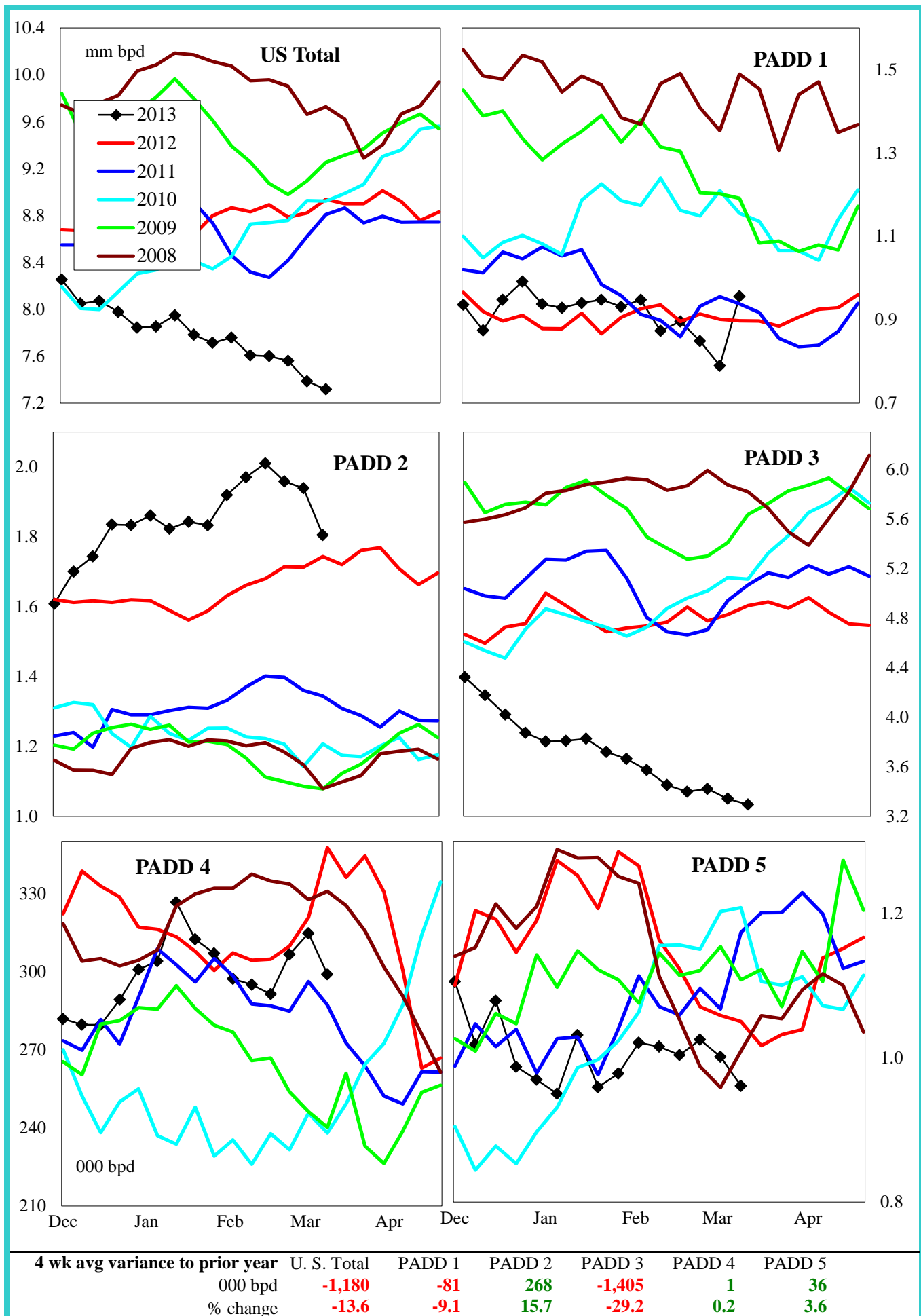


# United States Petroleum Imports

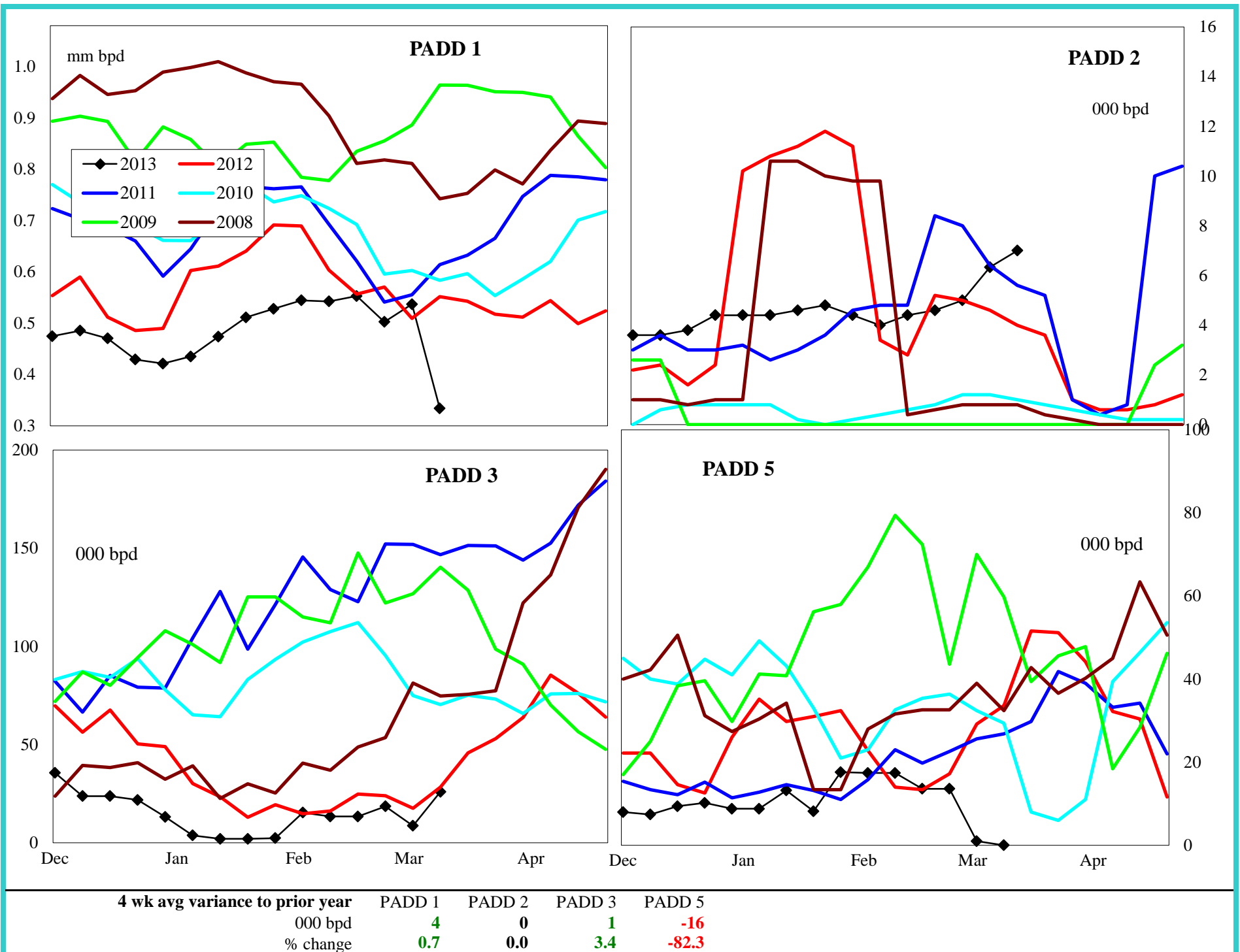




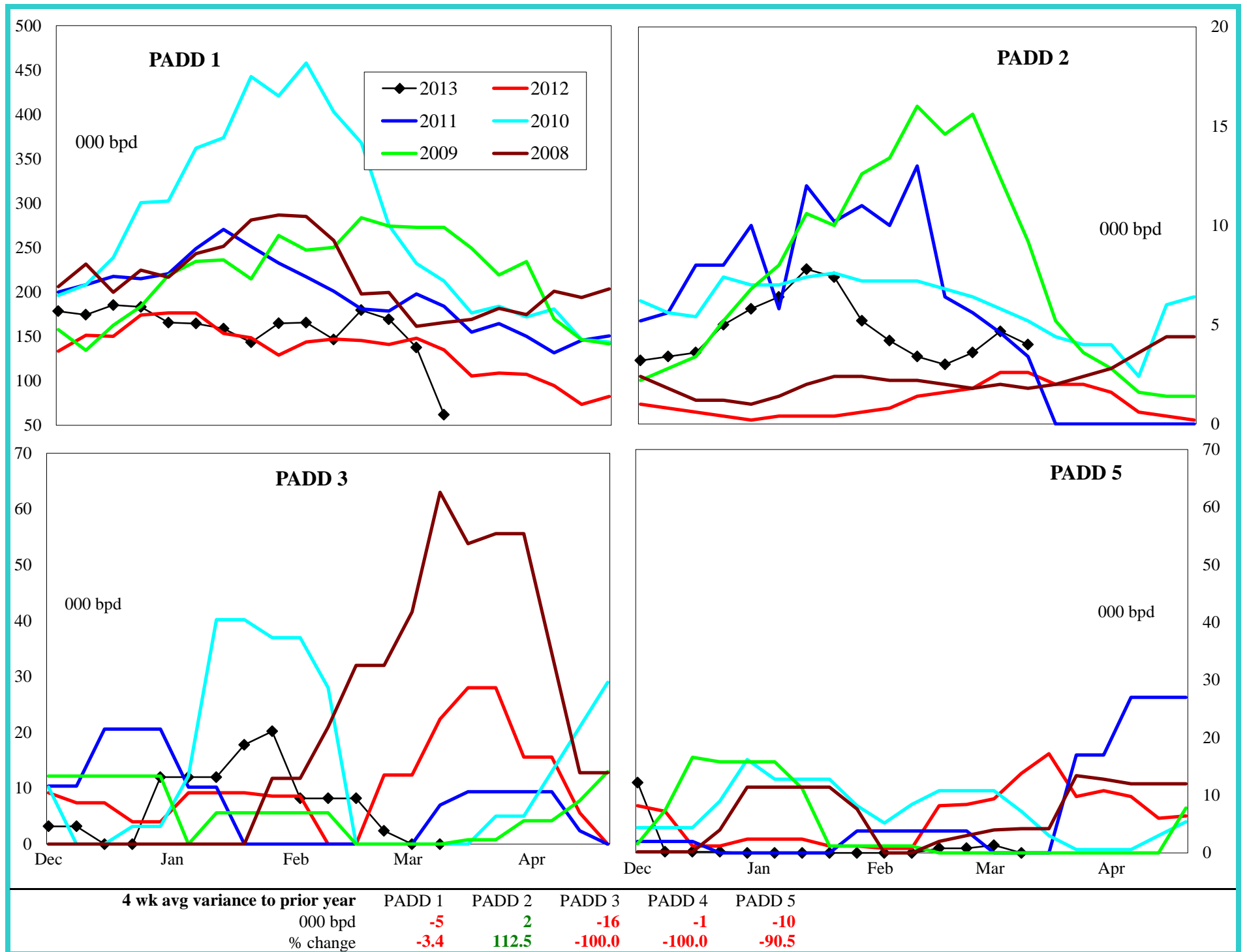
## Crude Oil Imports by PADD



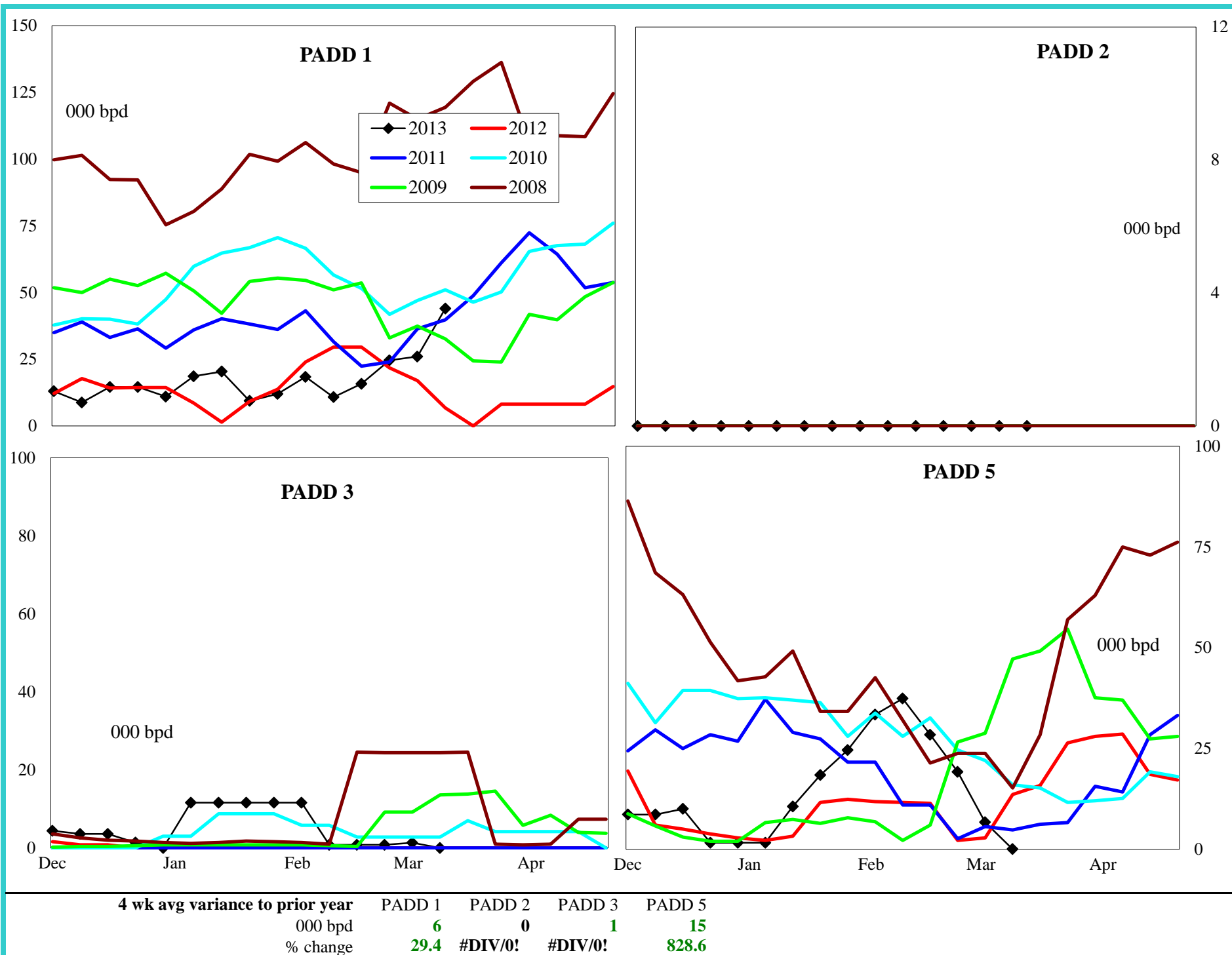
# Gasoline Imports by PADD (Finished + Blend Stocks)



# Distillate Imports by PADD

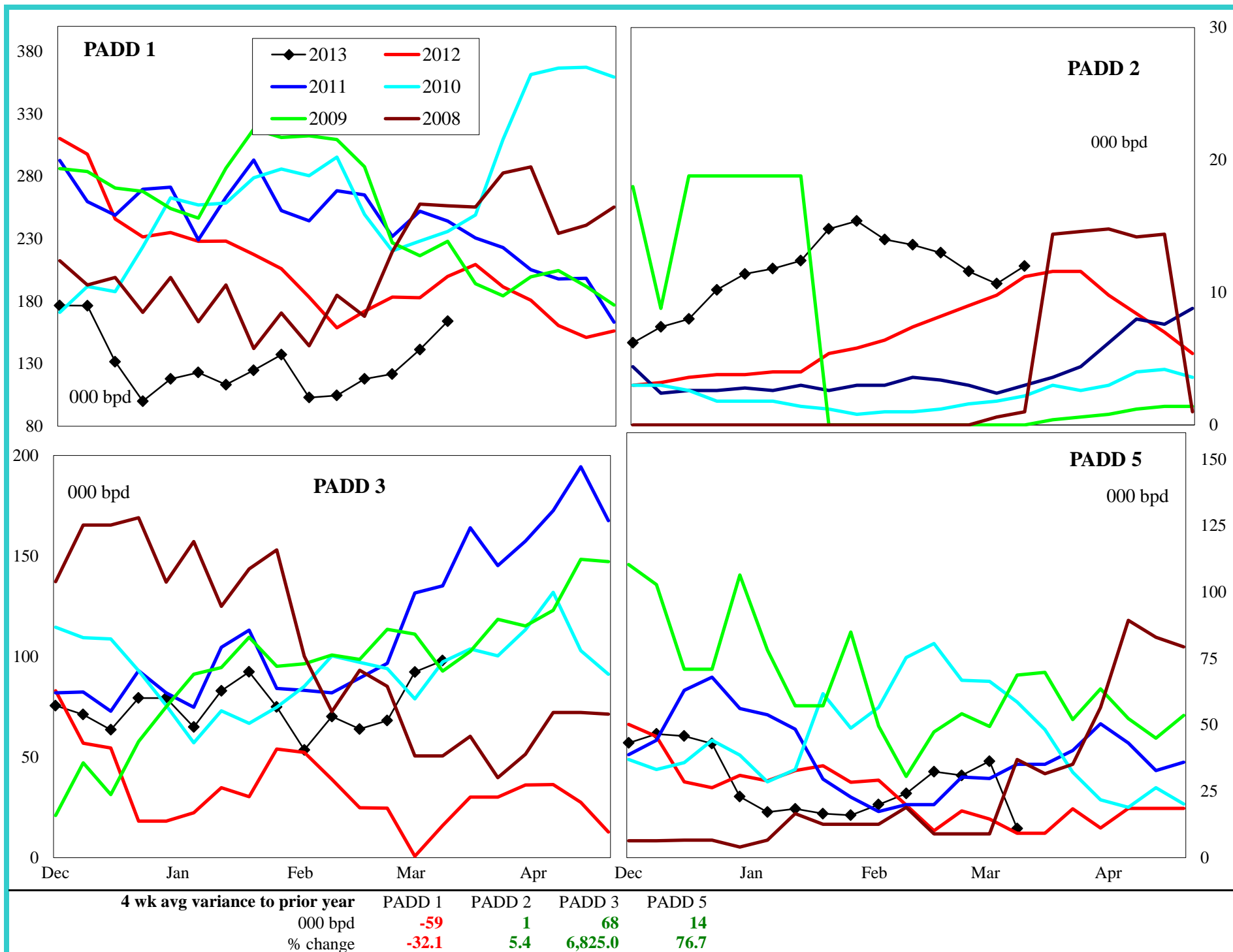


# Jet Fuel Imports by PADD

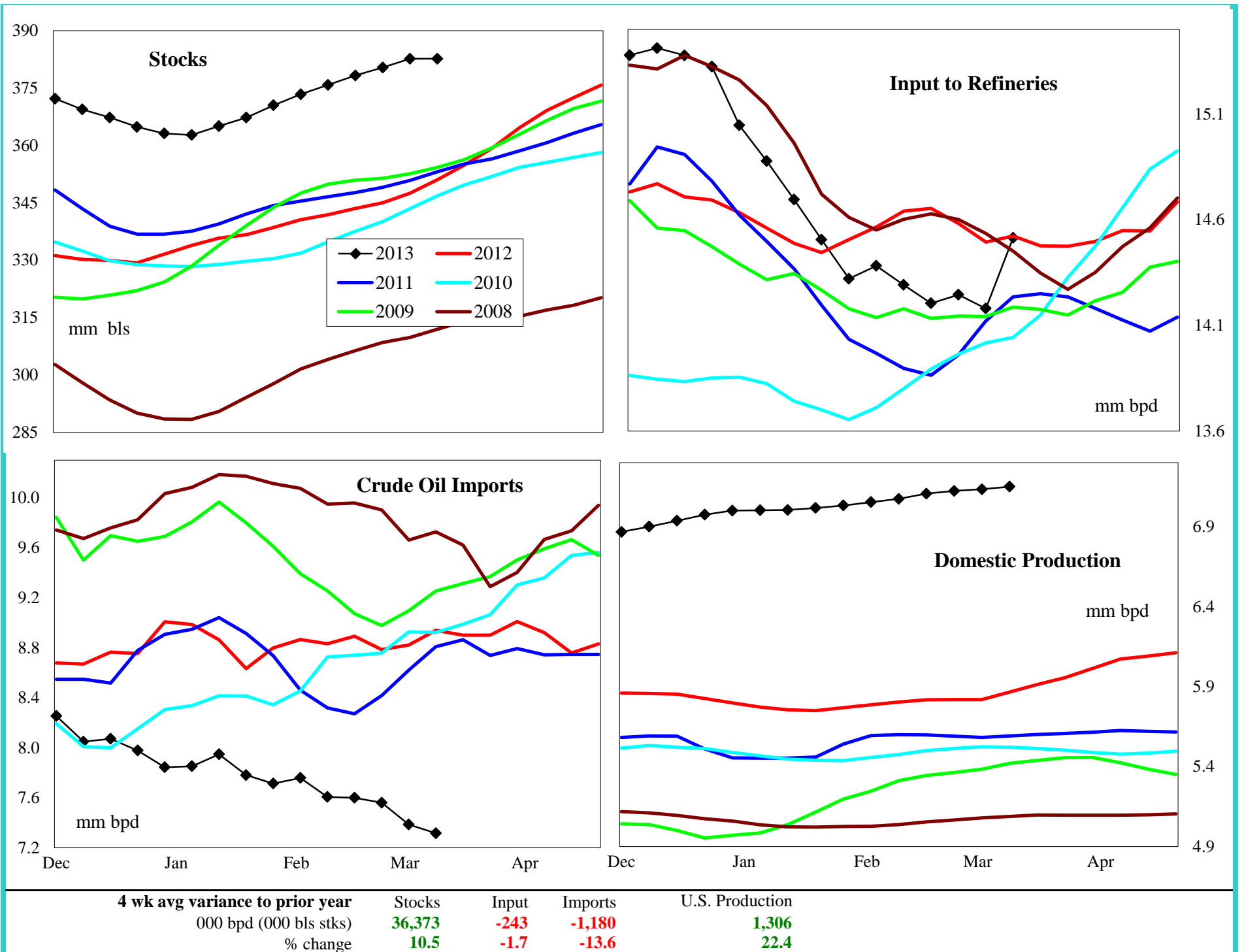




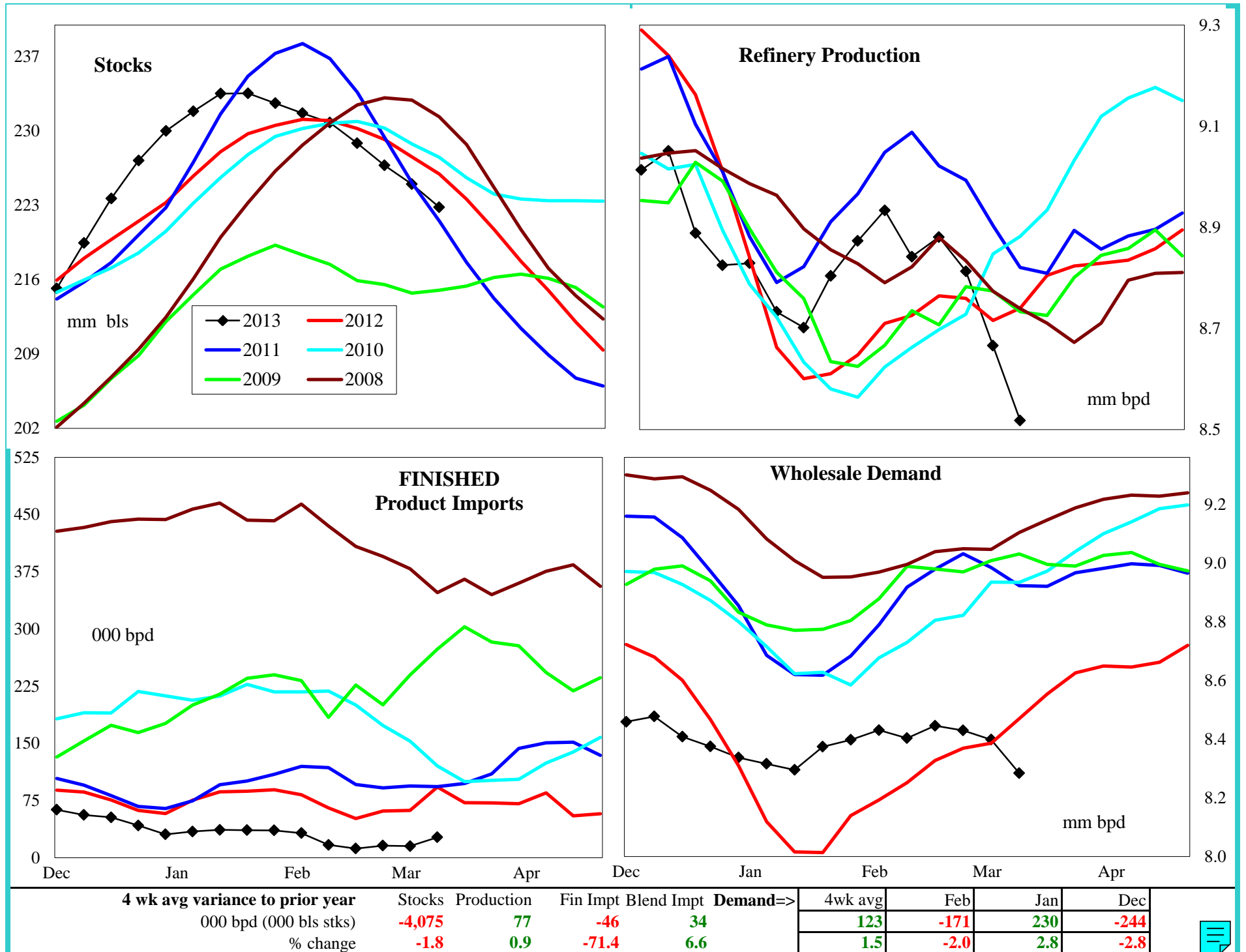
## Residual Fuel Oil Imports by PADD



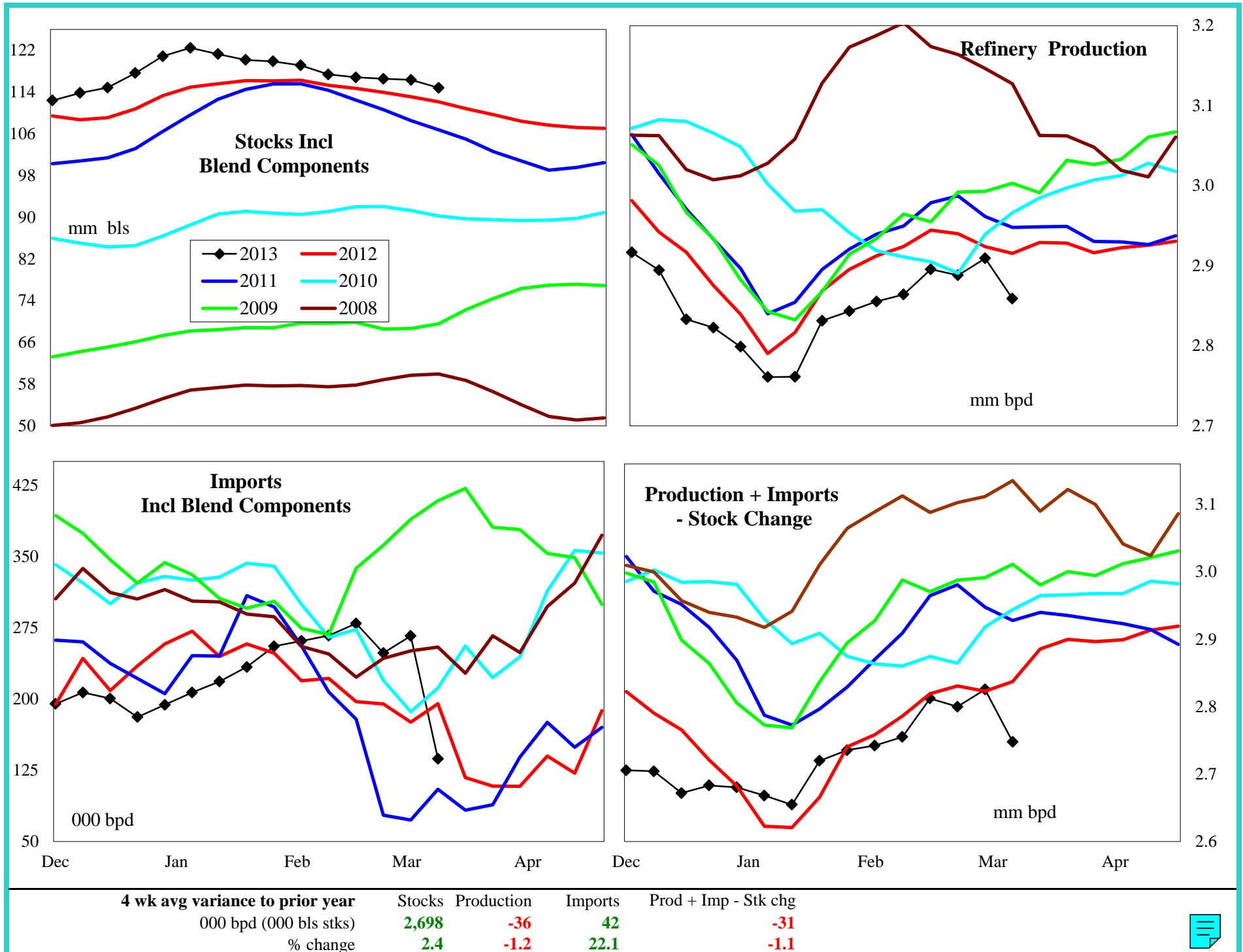
# United States Crude Oil Supply and Demand Balance



# United States Gasoline Supply and Demand Balance

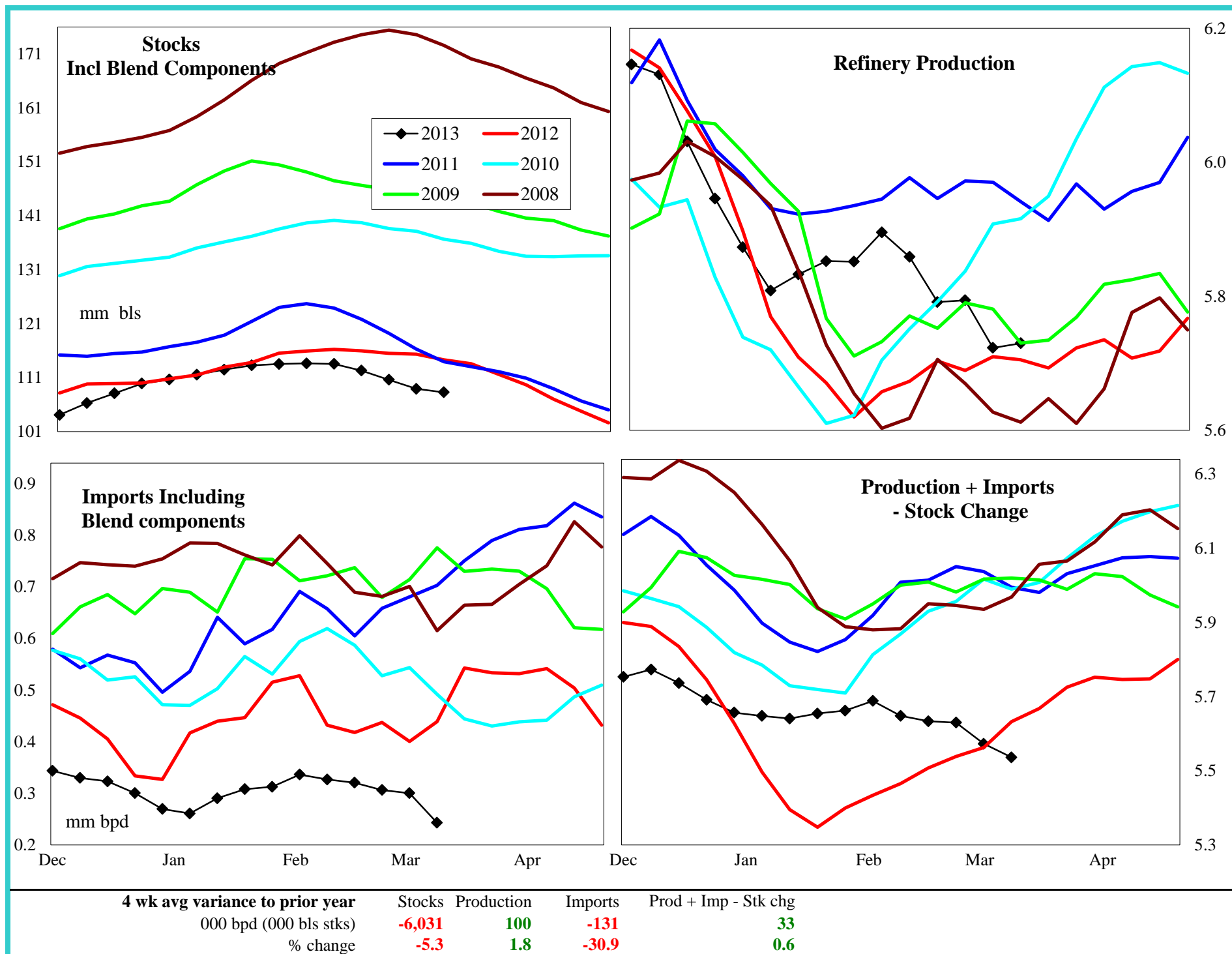


# United States Reformulated Gasoline Supply

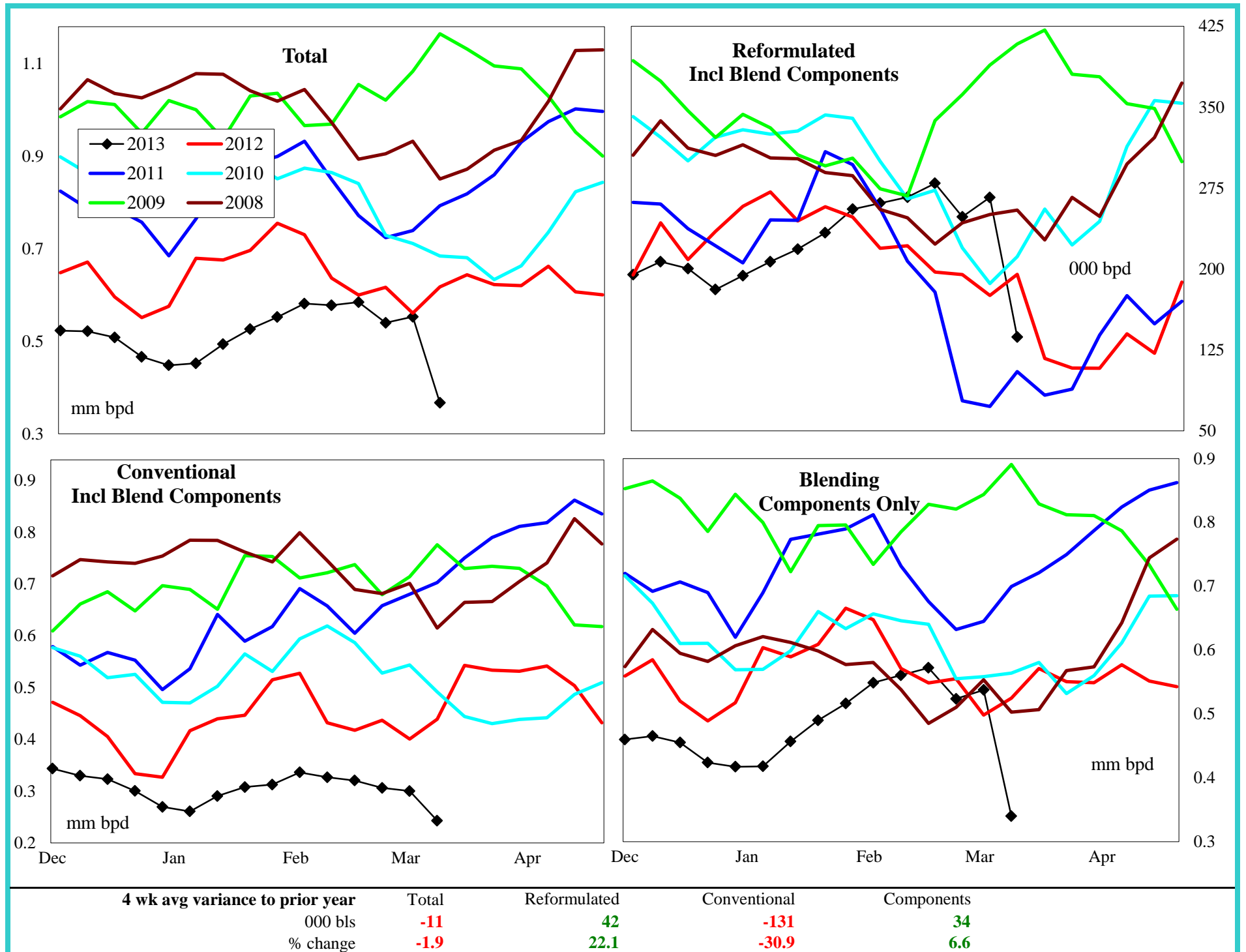




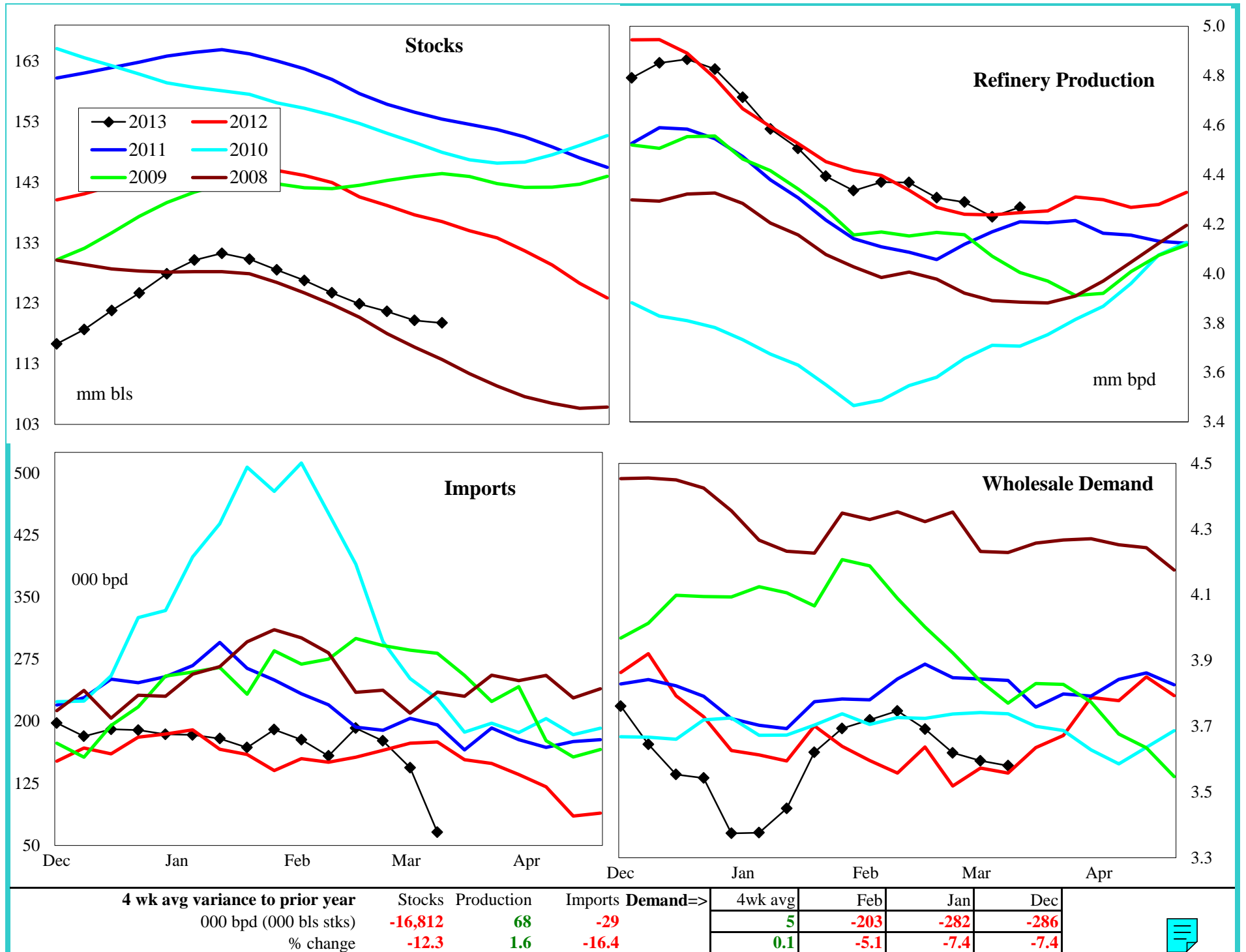
# United States Conventional Gasoline Supply



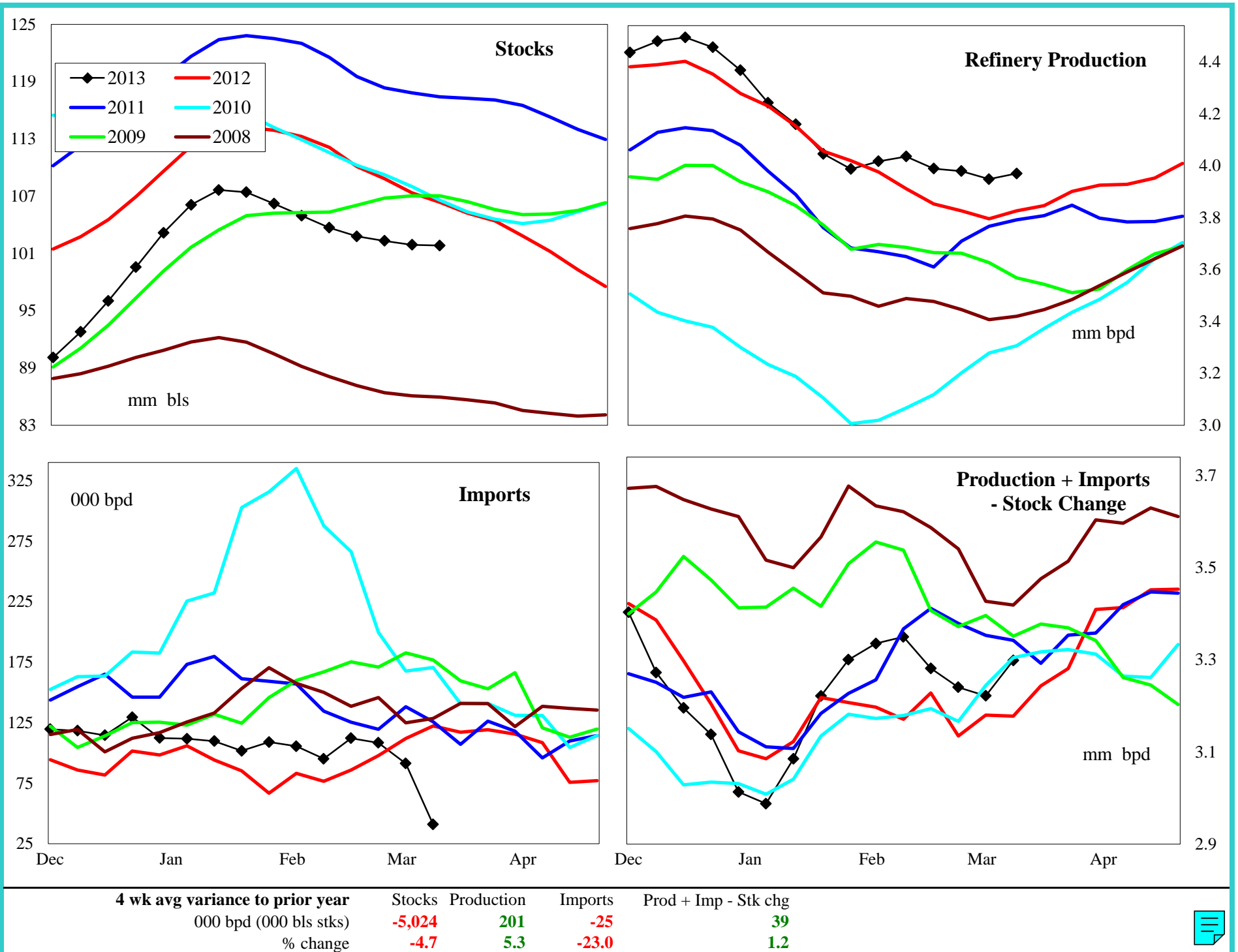
# United States Gasoline Imports by Type



# United States Distillate Supply and Demand Balance

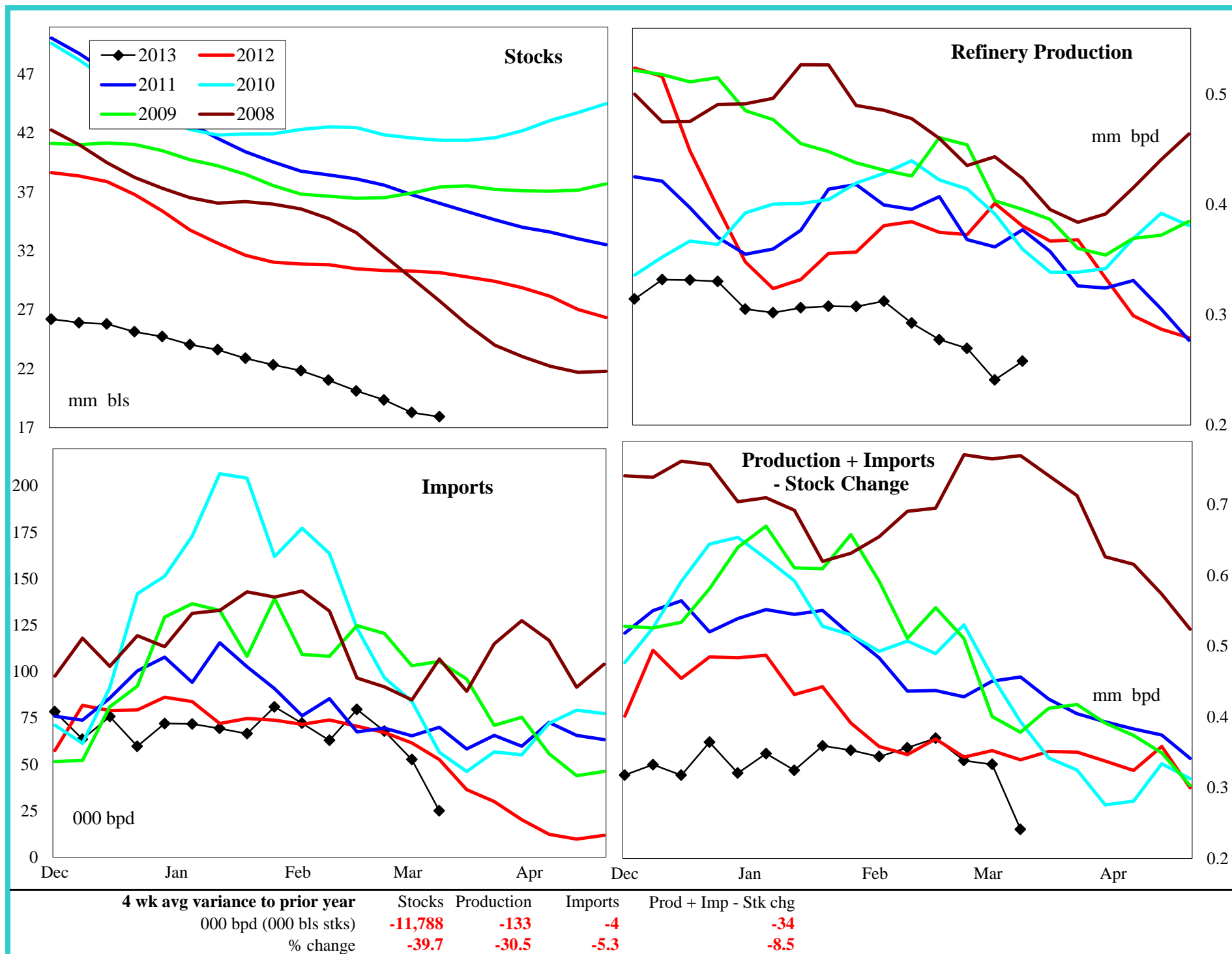


# United States Low Sulfur Distillate Supply

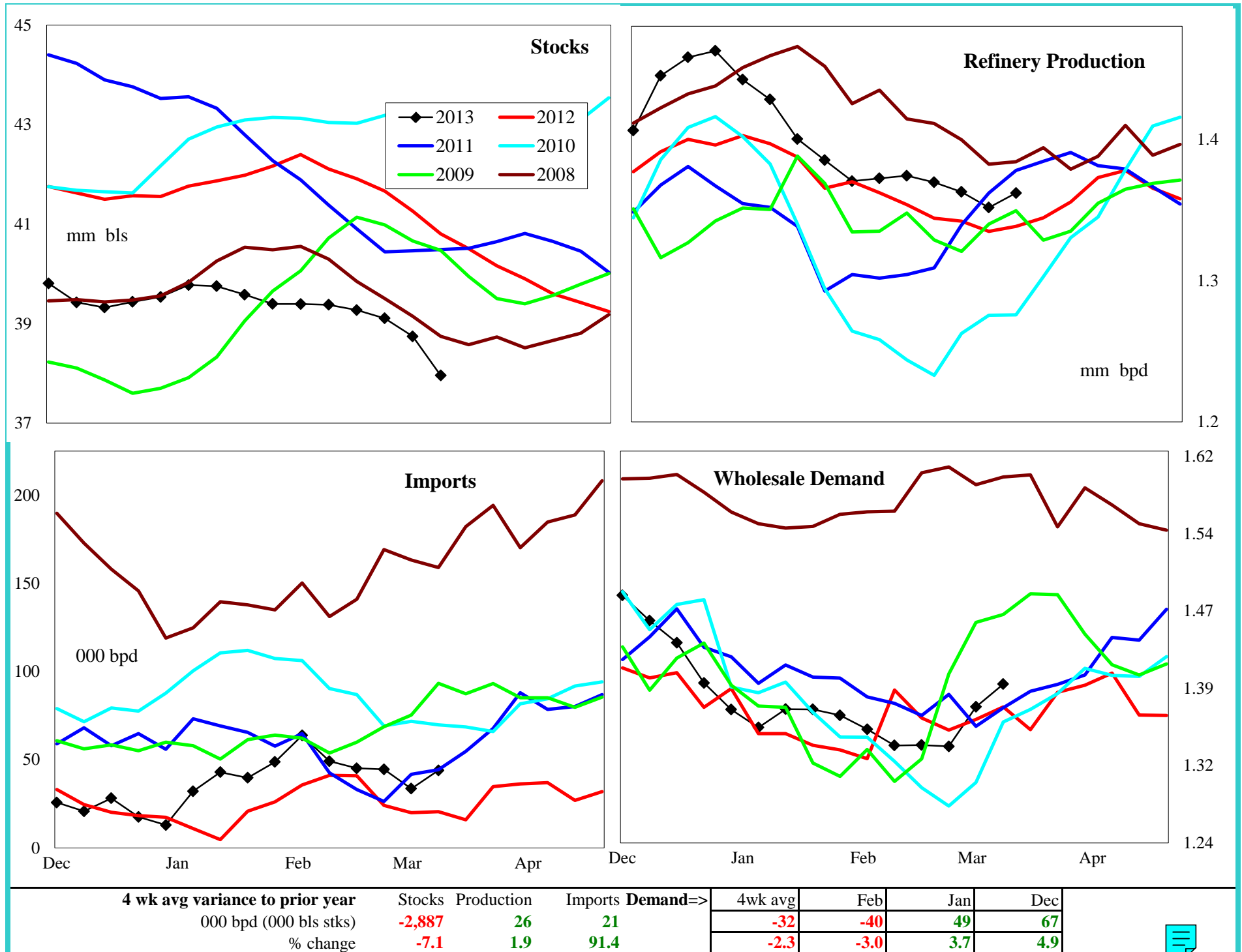




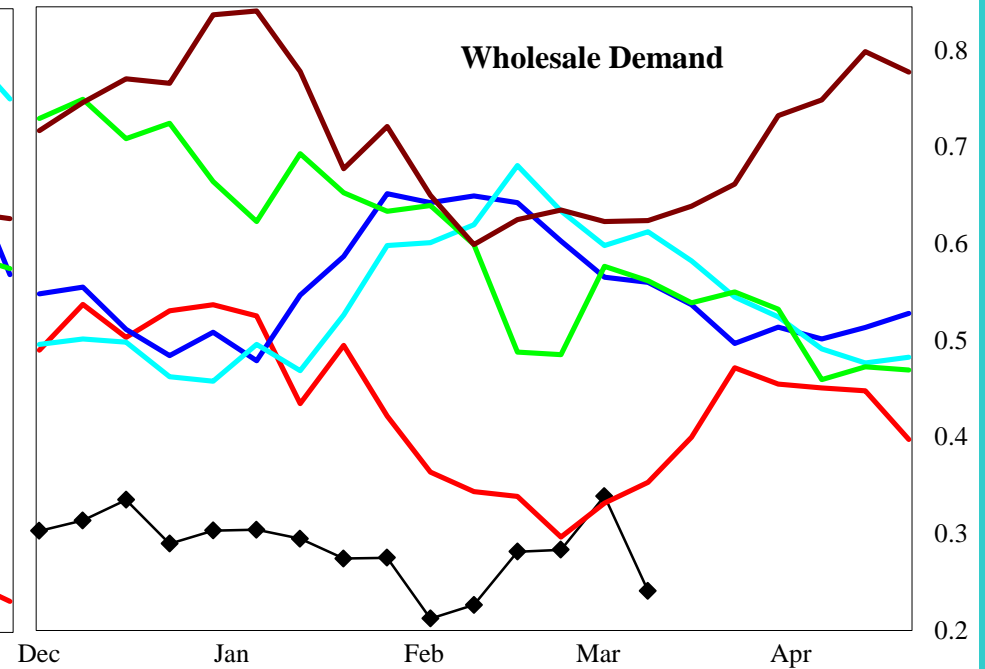
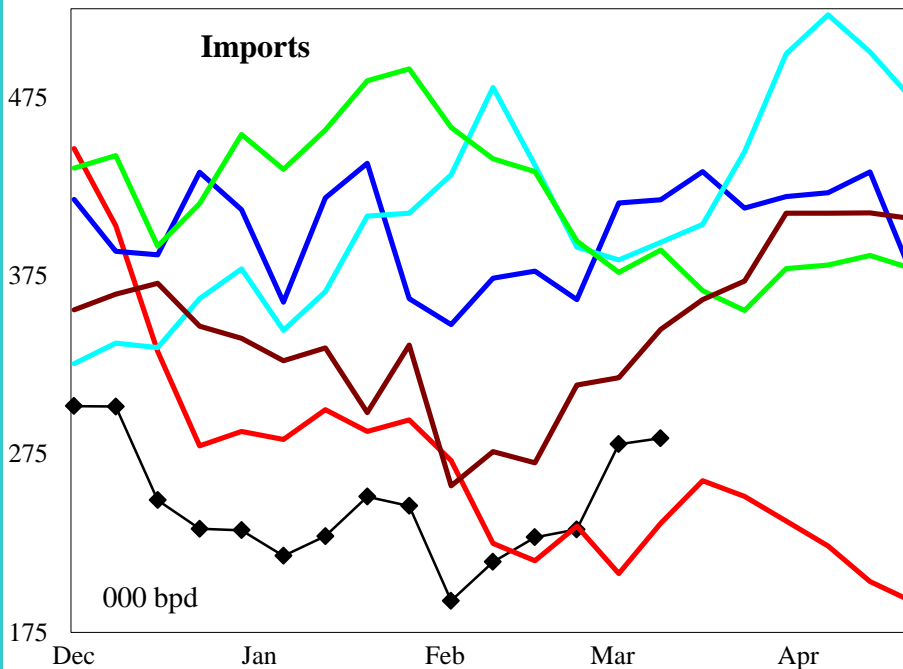
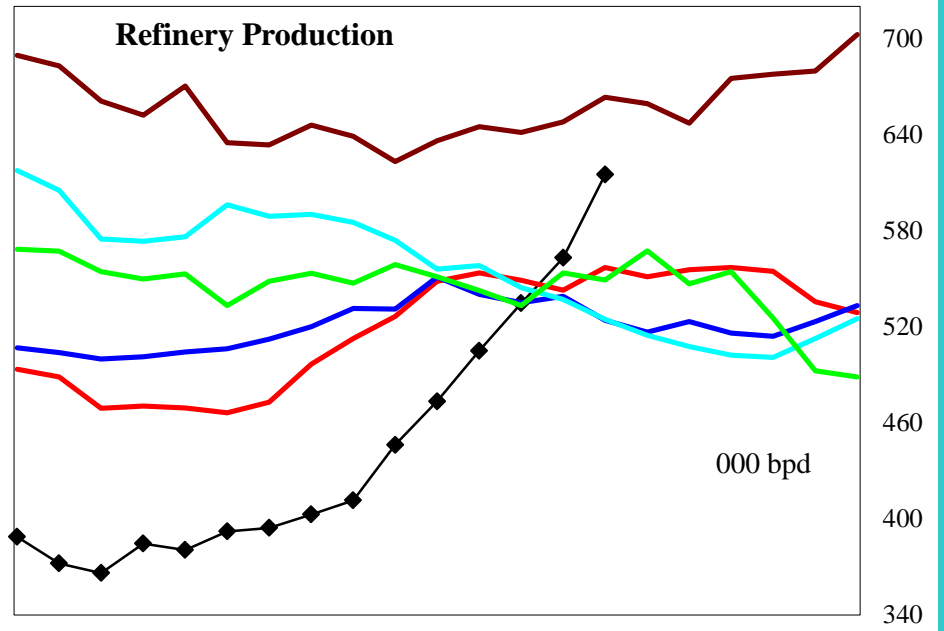
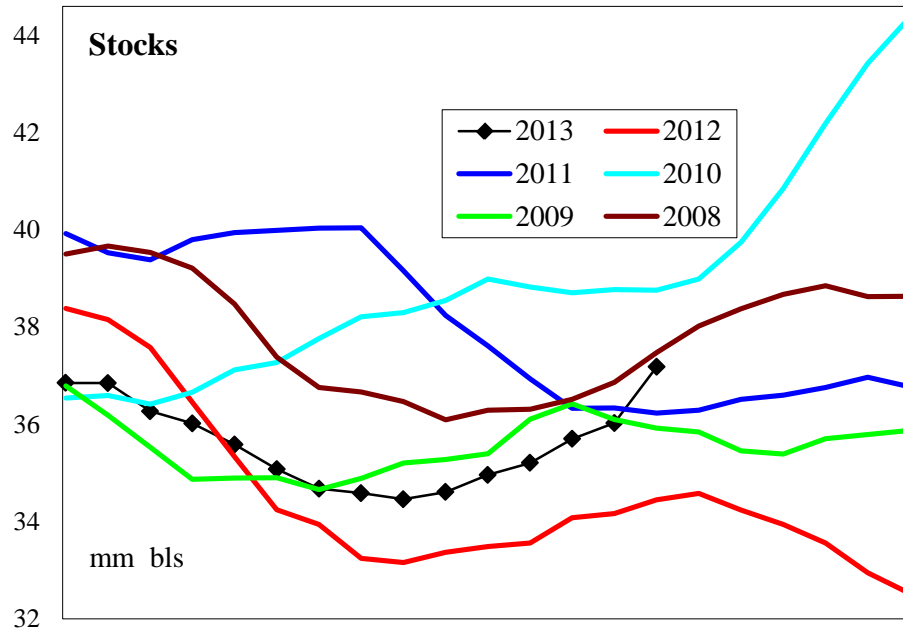
# United States High Sulfur Distillate Supply



# United States Jet Fuel Supply and Demand Balance



# United States Residual Fuel Oil Supply and Demand Balance



4 wk avg variance to prior year

000 bpd (000 bls stks)

% change

Stocks

Production

Imports

Demand=>

2,728

8

24

7.8

1.4

11.5

4wk avg

Feb

Jan

Dec

-15

-160

-135

-209

-4.6

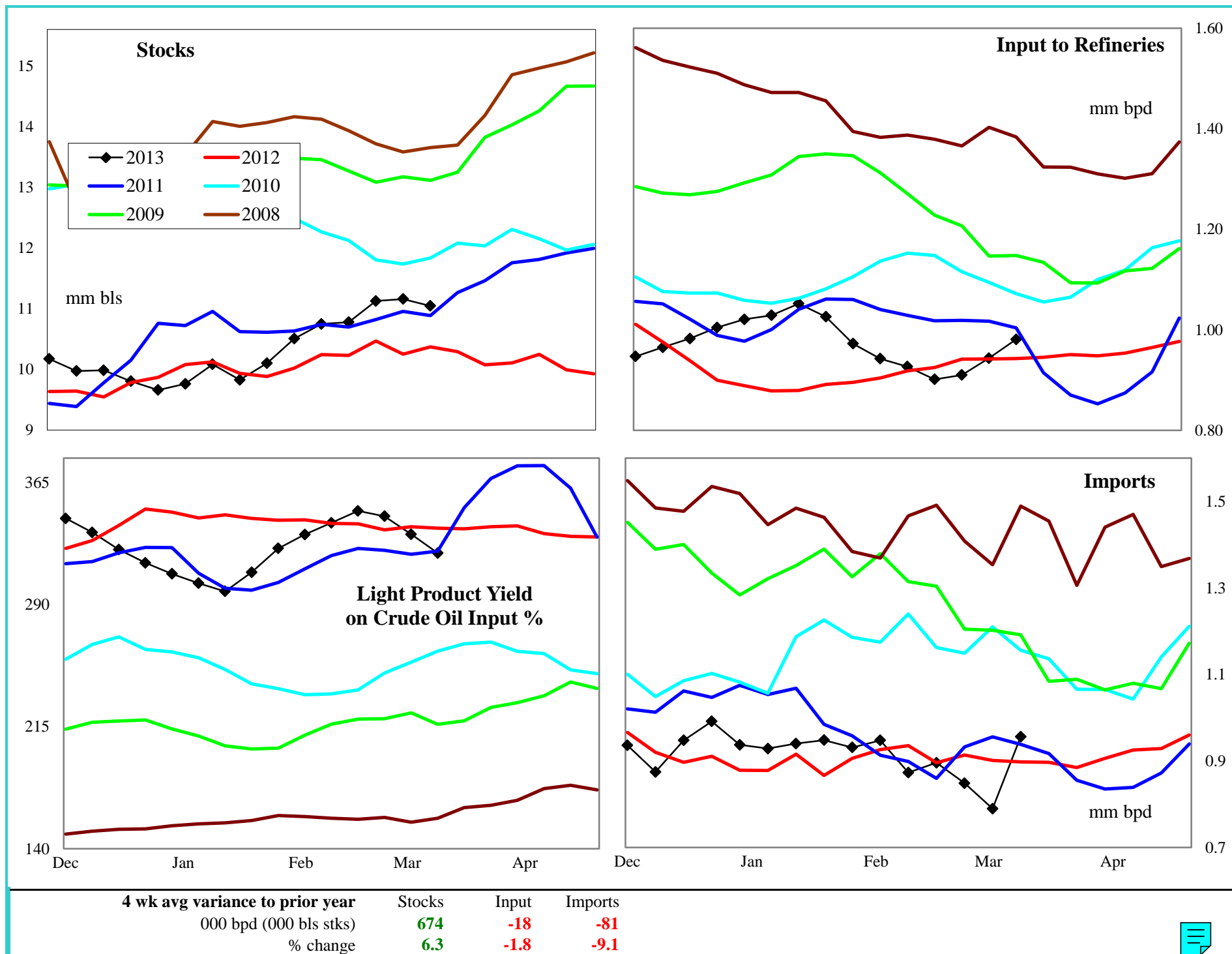
-40.6

-32.1

-40.3

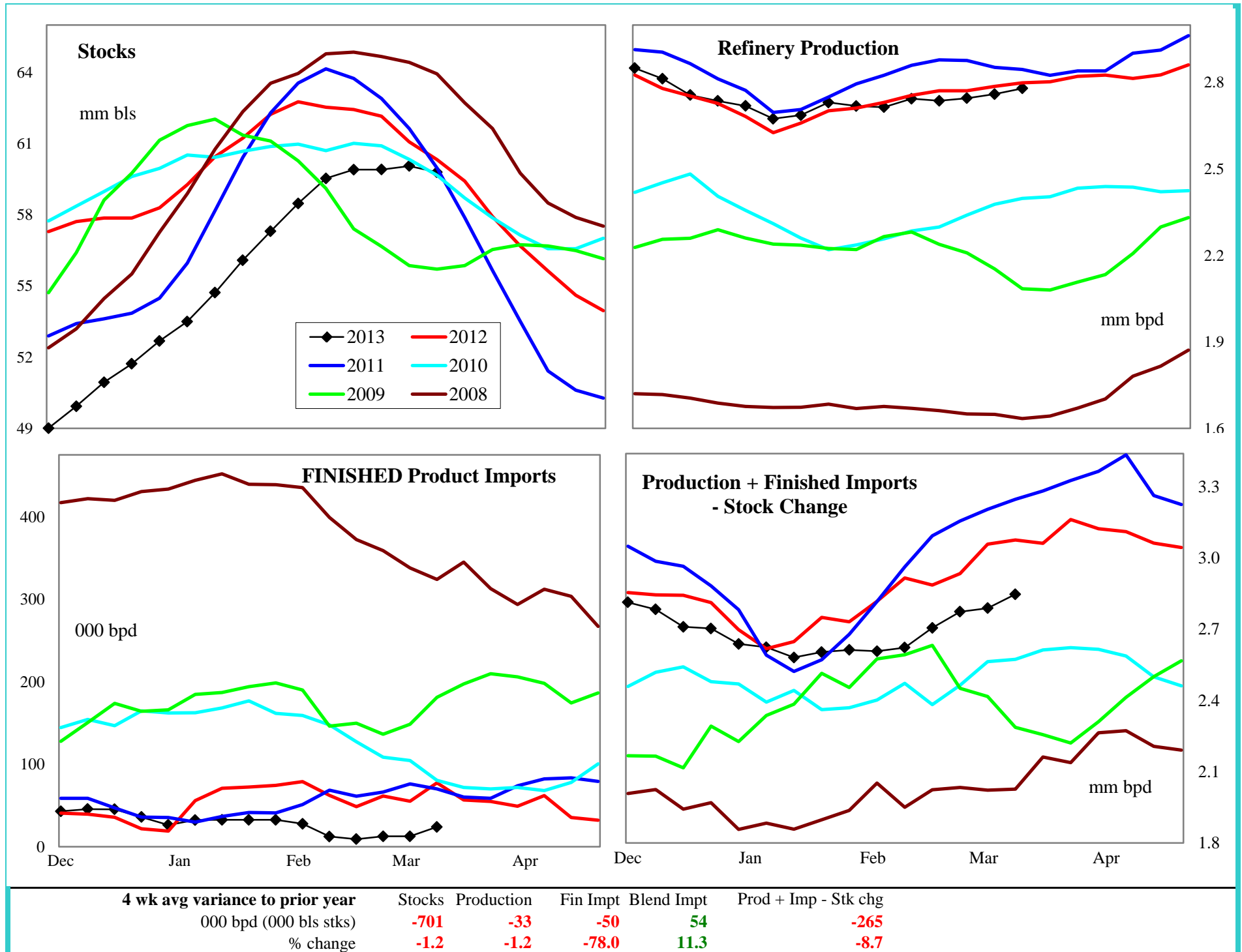


# PADD 1 Crude Oil Supply and Refining

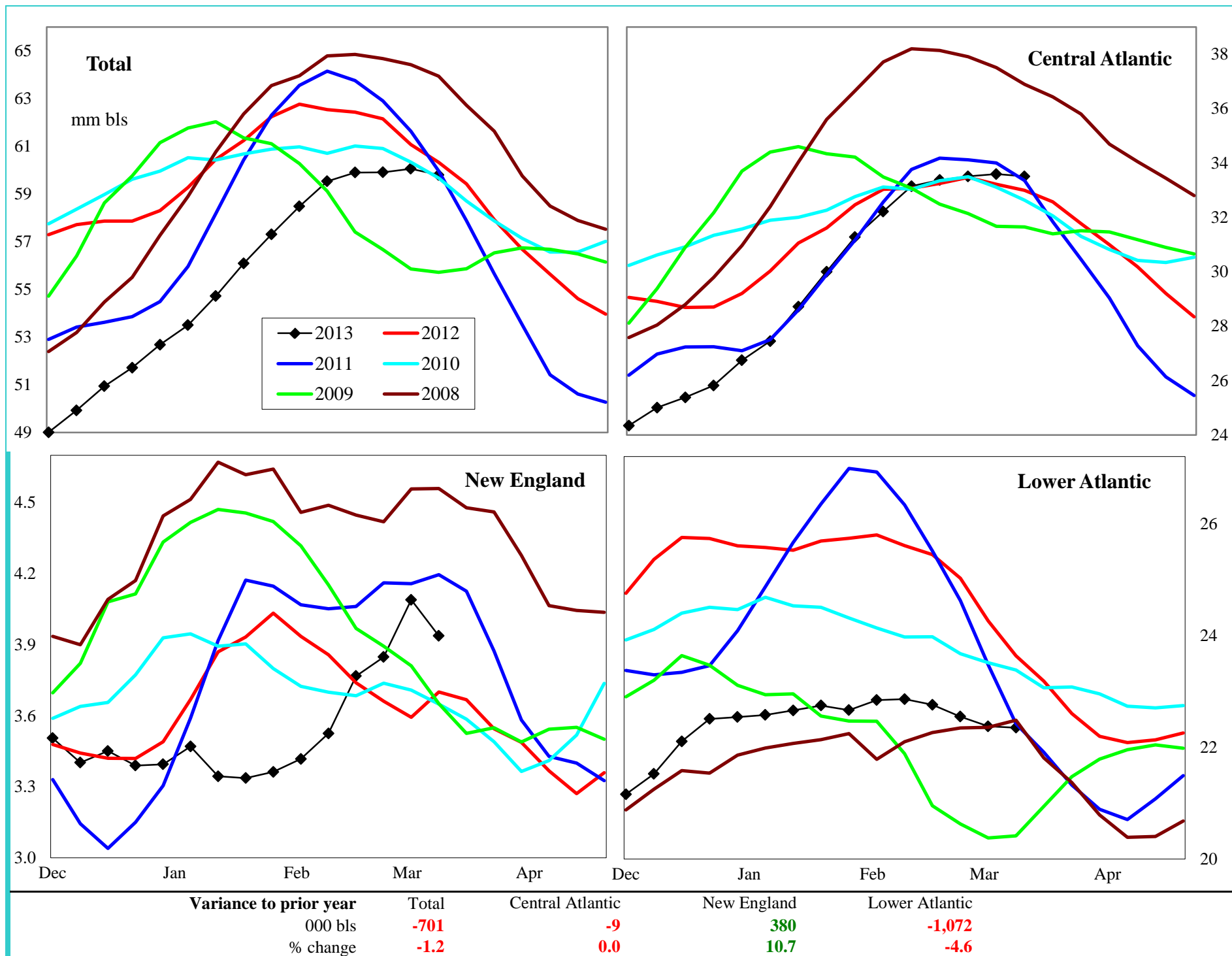




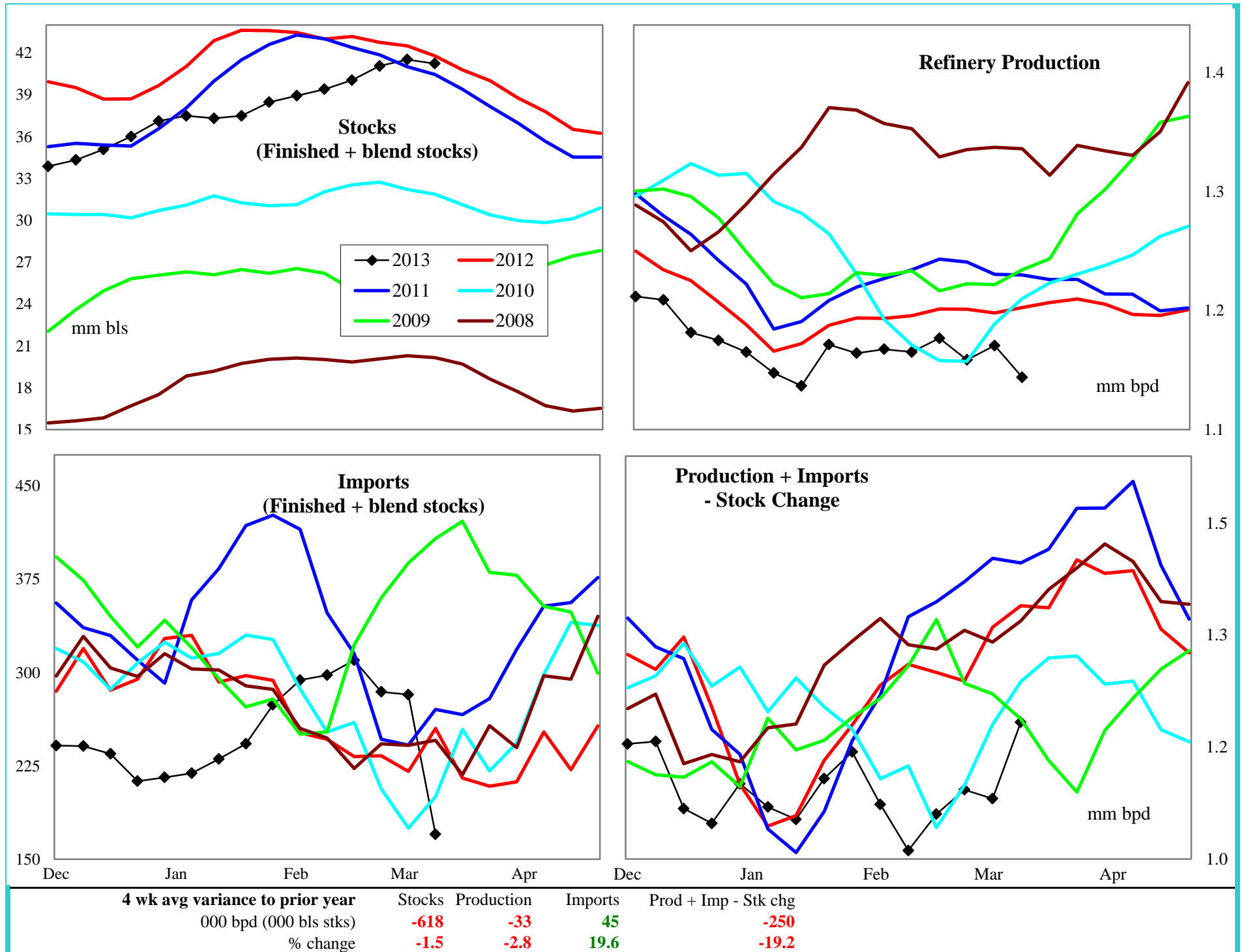
## PADD 1 Gasoline Supply



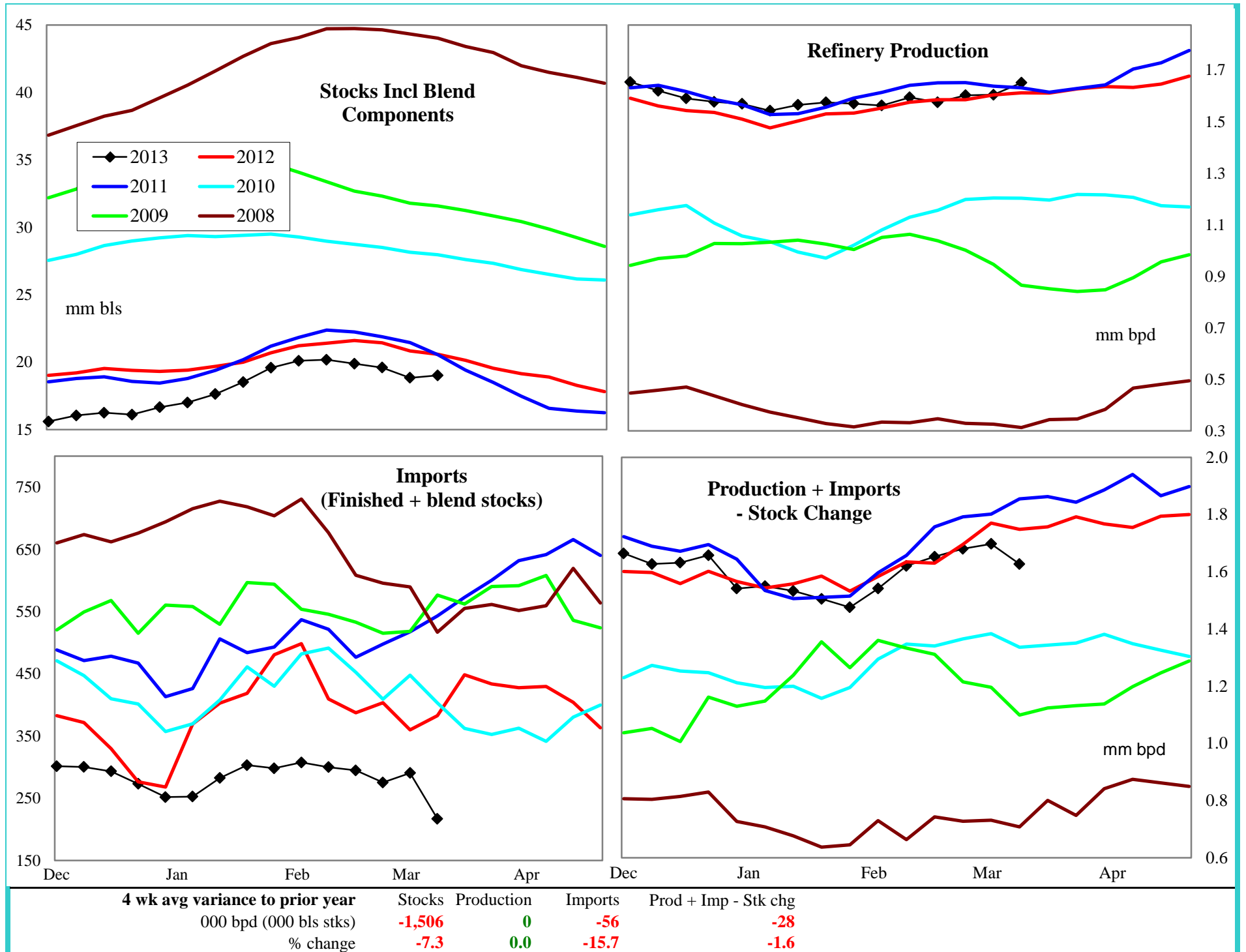
## PADD 1 Gasoline Stocks by Region



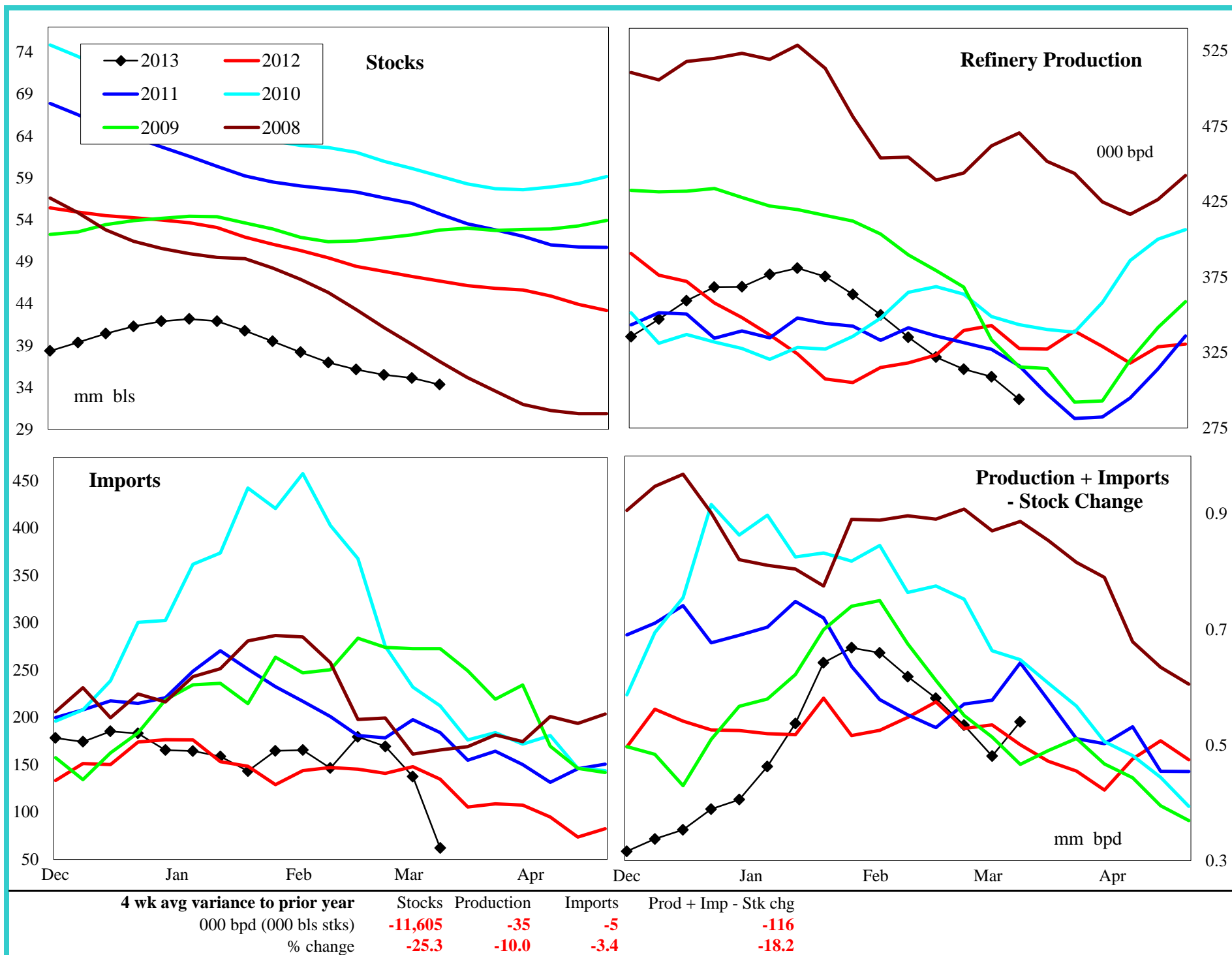
# PADD 1 Reformulated Gasoline Supply



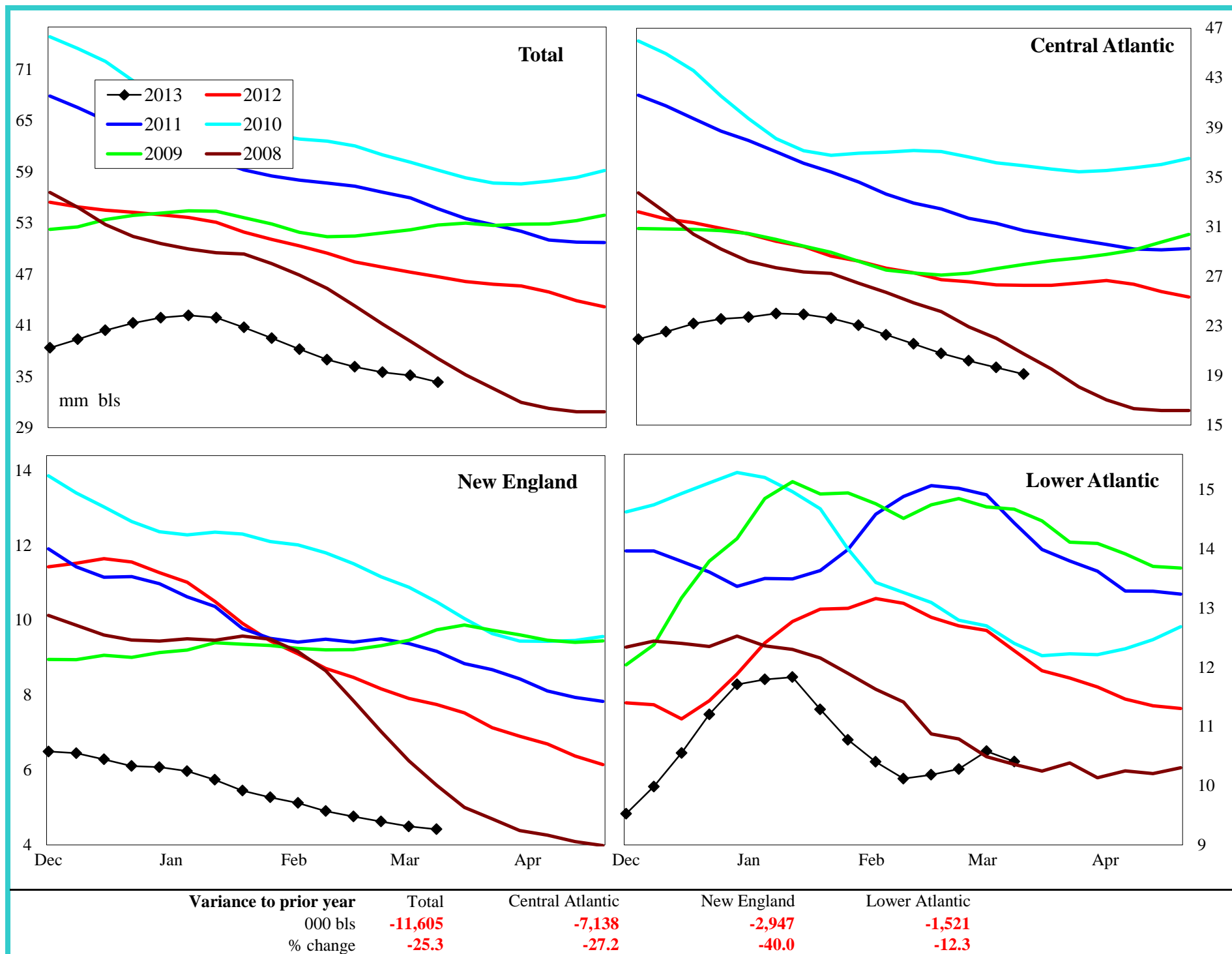
# PADD 1 Conventional Gasoline Supply



## PADD 1 Distillate Supply

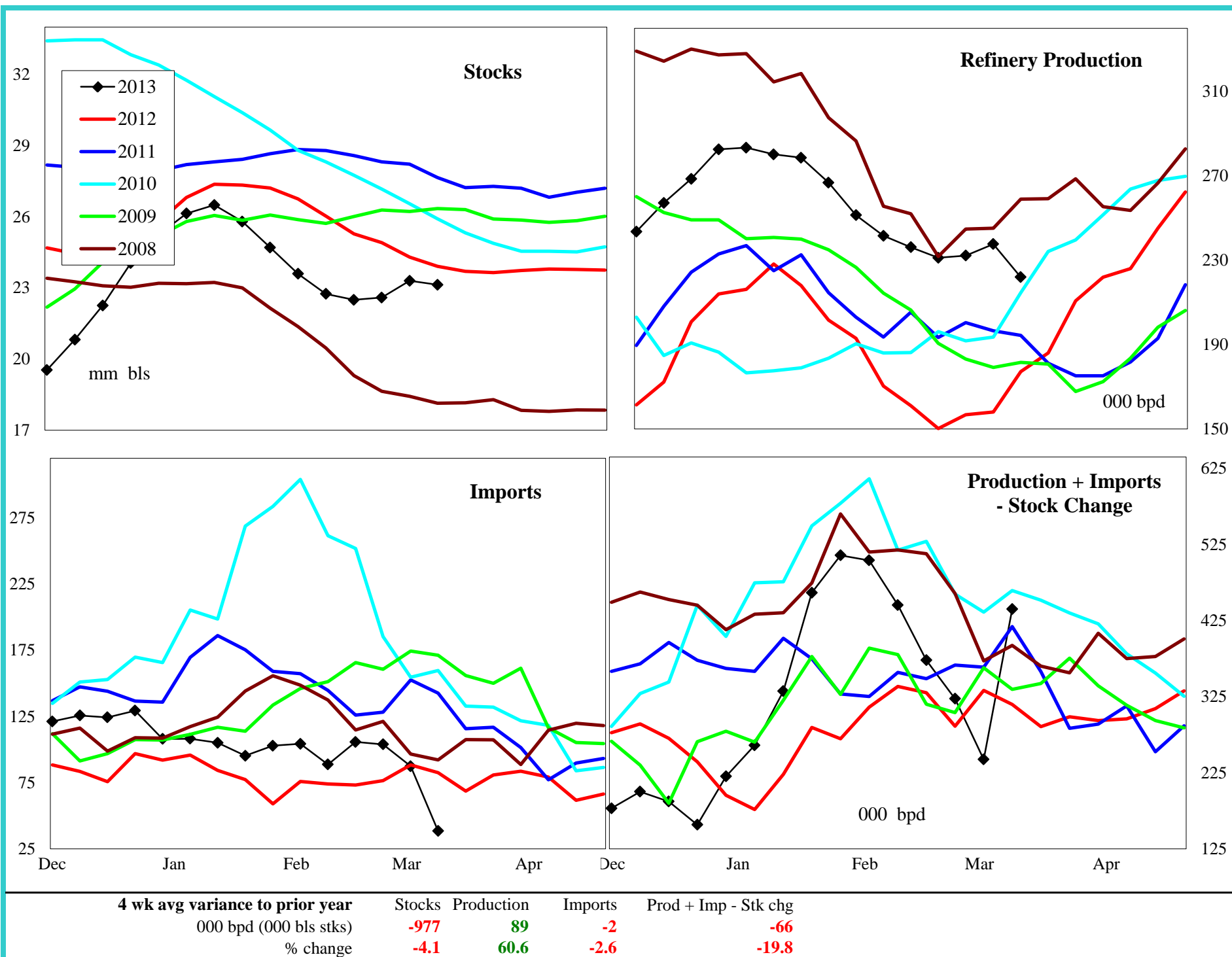


# PADD 1 Distillate Stocks by Region

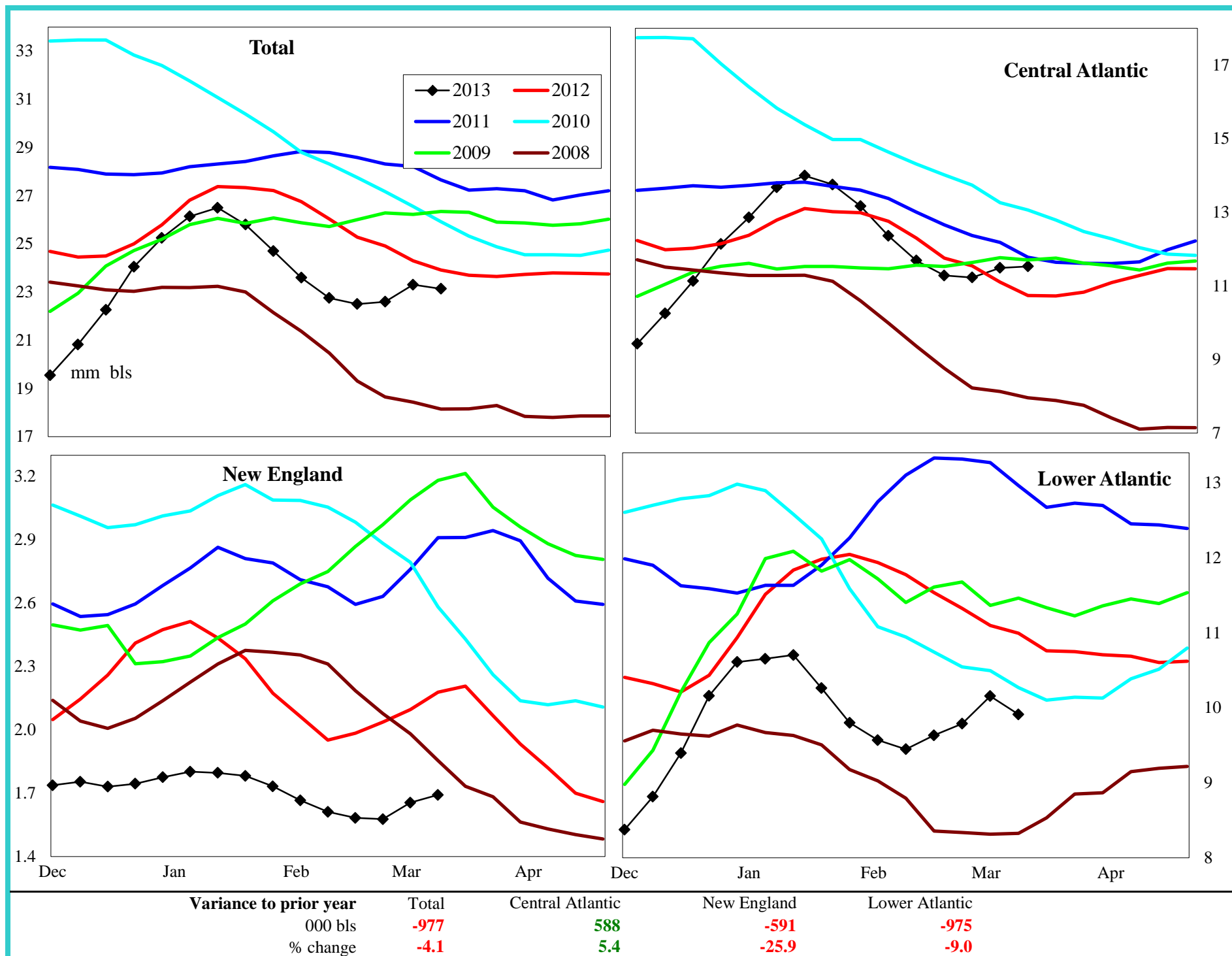




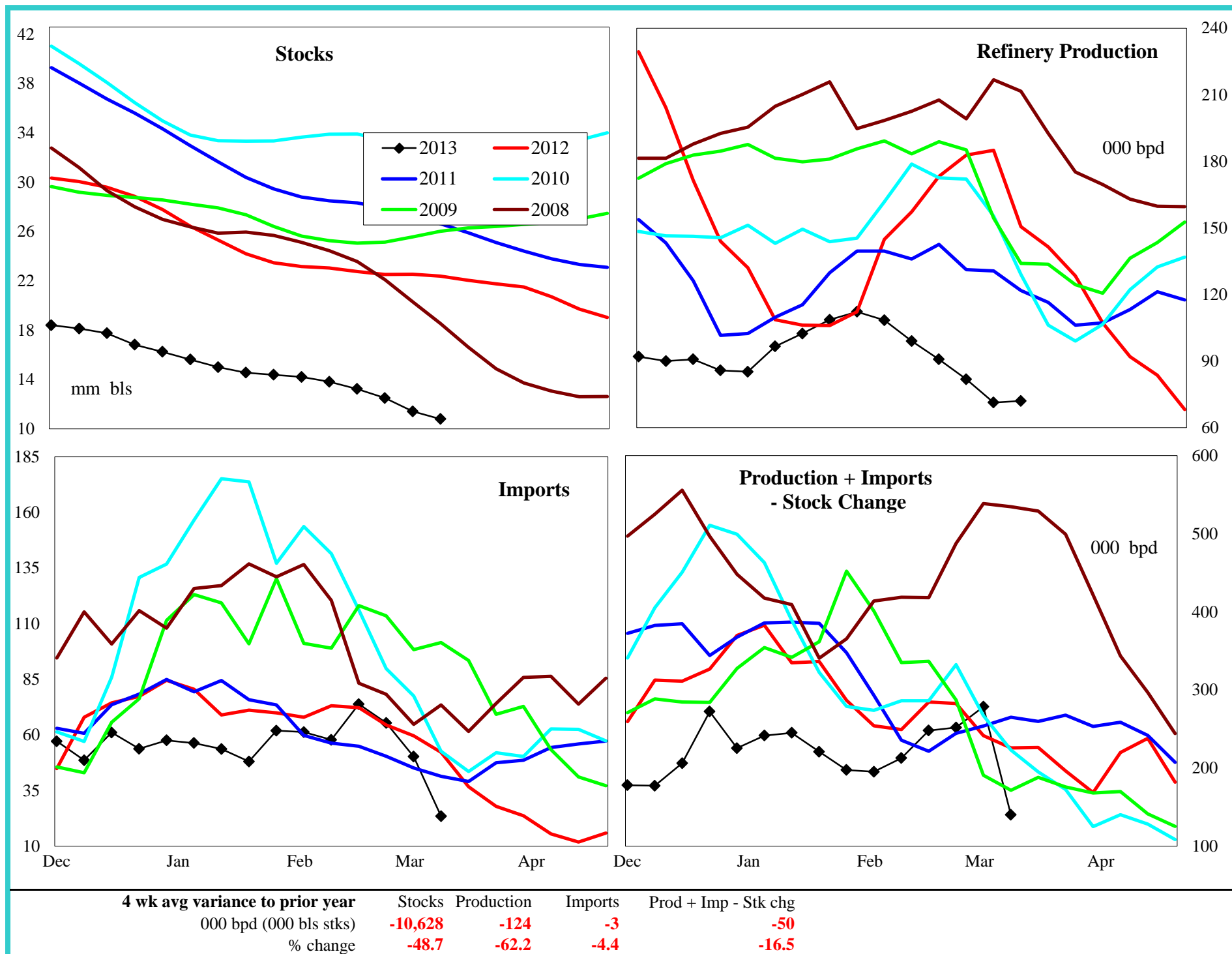
# PADD 1 Low Sulfur Distillate Supply



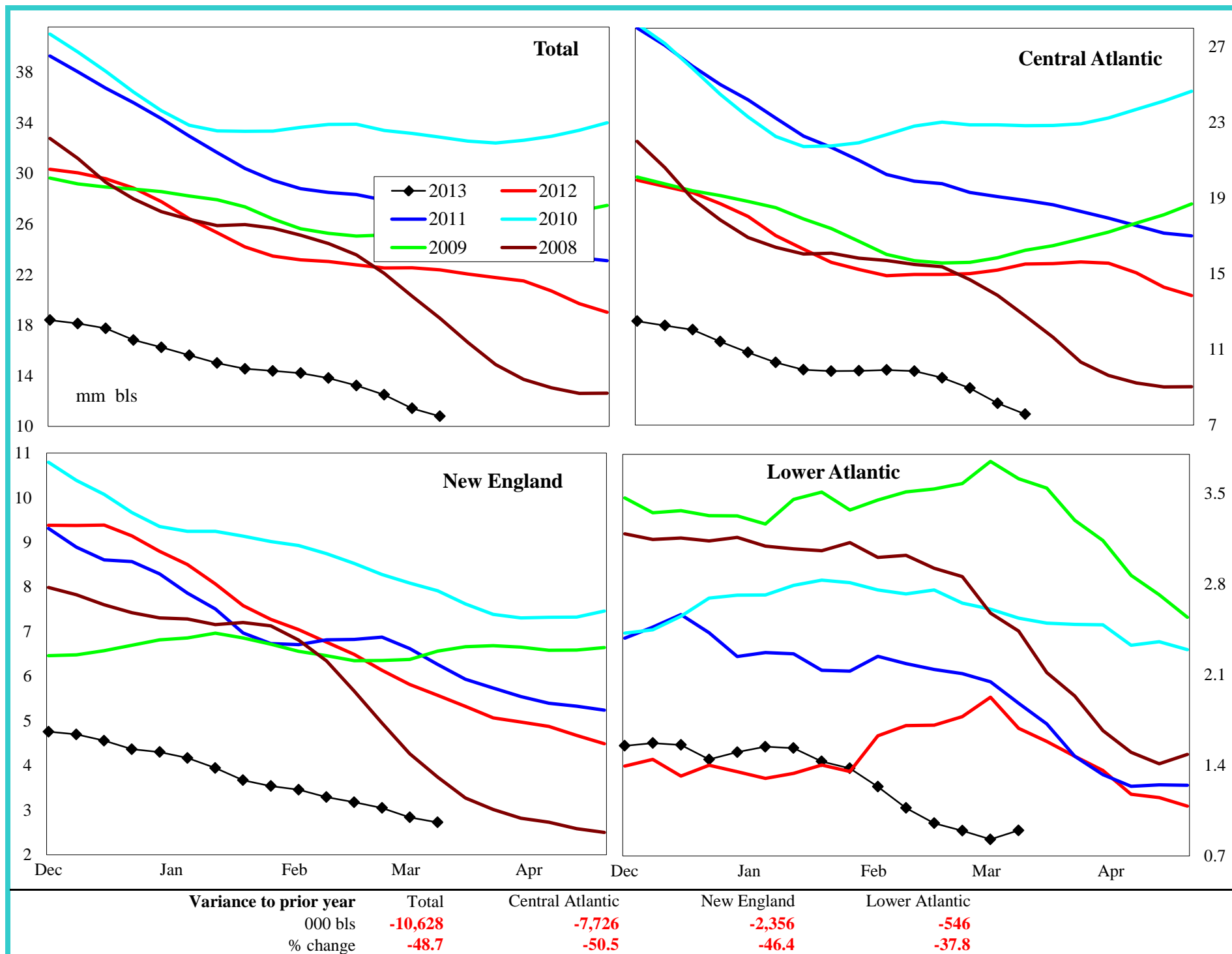
# PADD 1 Low Sulfur Distillate Stocks by Region



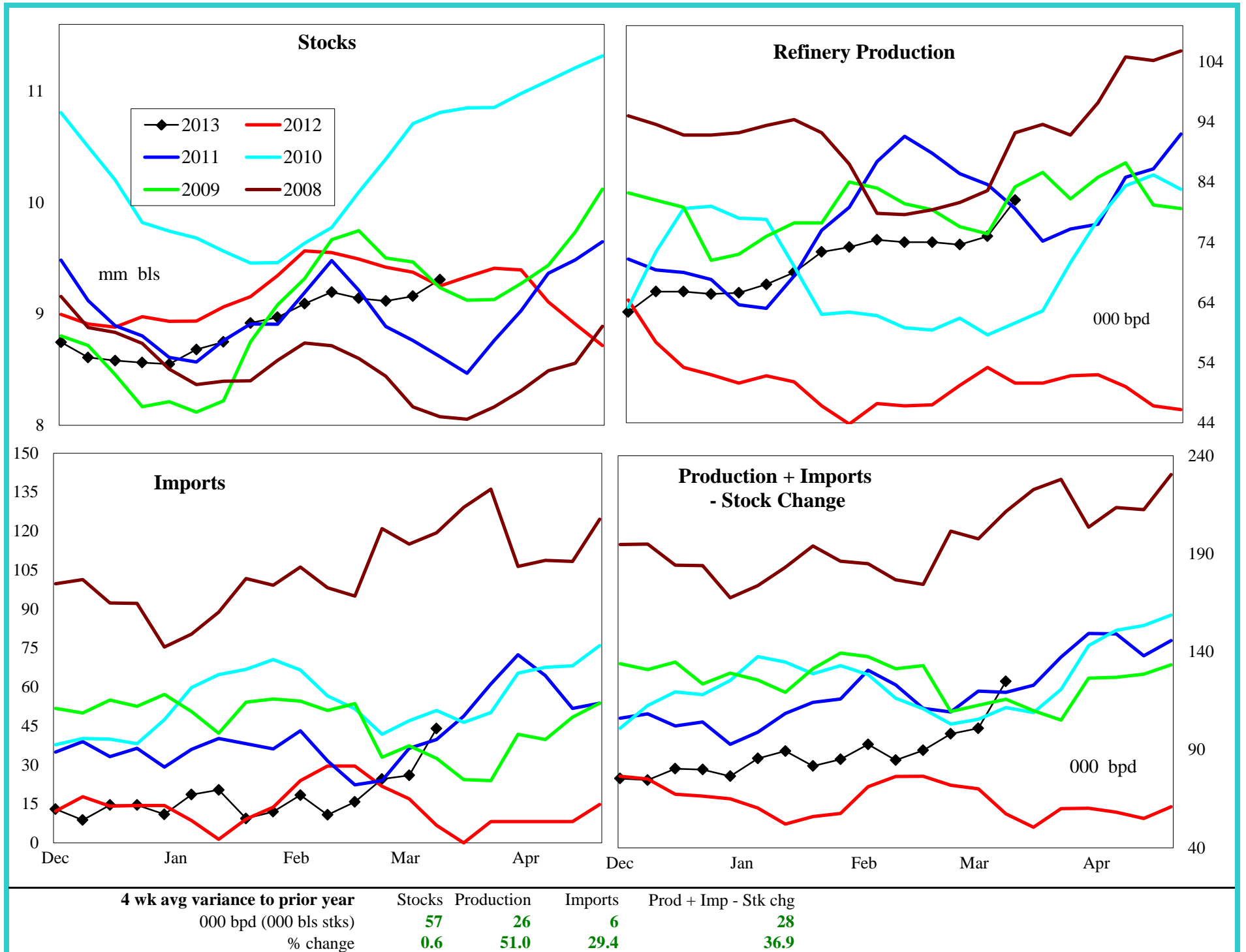
# PADD 1 High Sulfur Distillate Supply



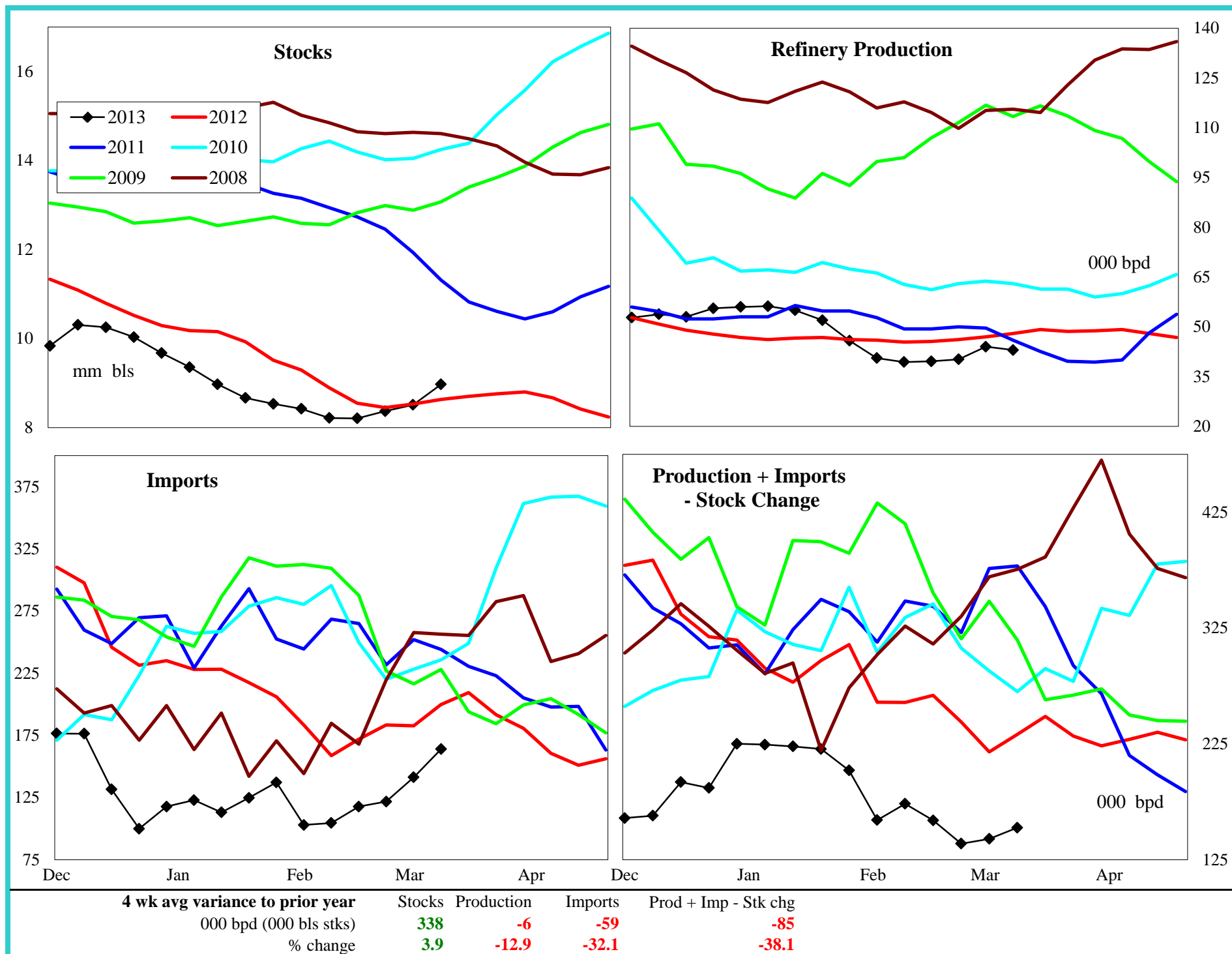
# PADD 1 High Sulfur Distillate Stocks by Region



## PADD 1 Jet Fuel Supply

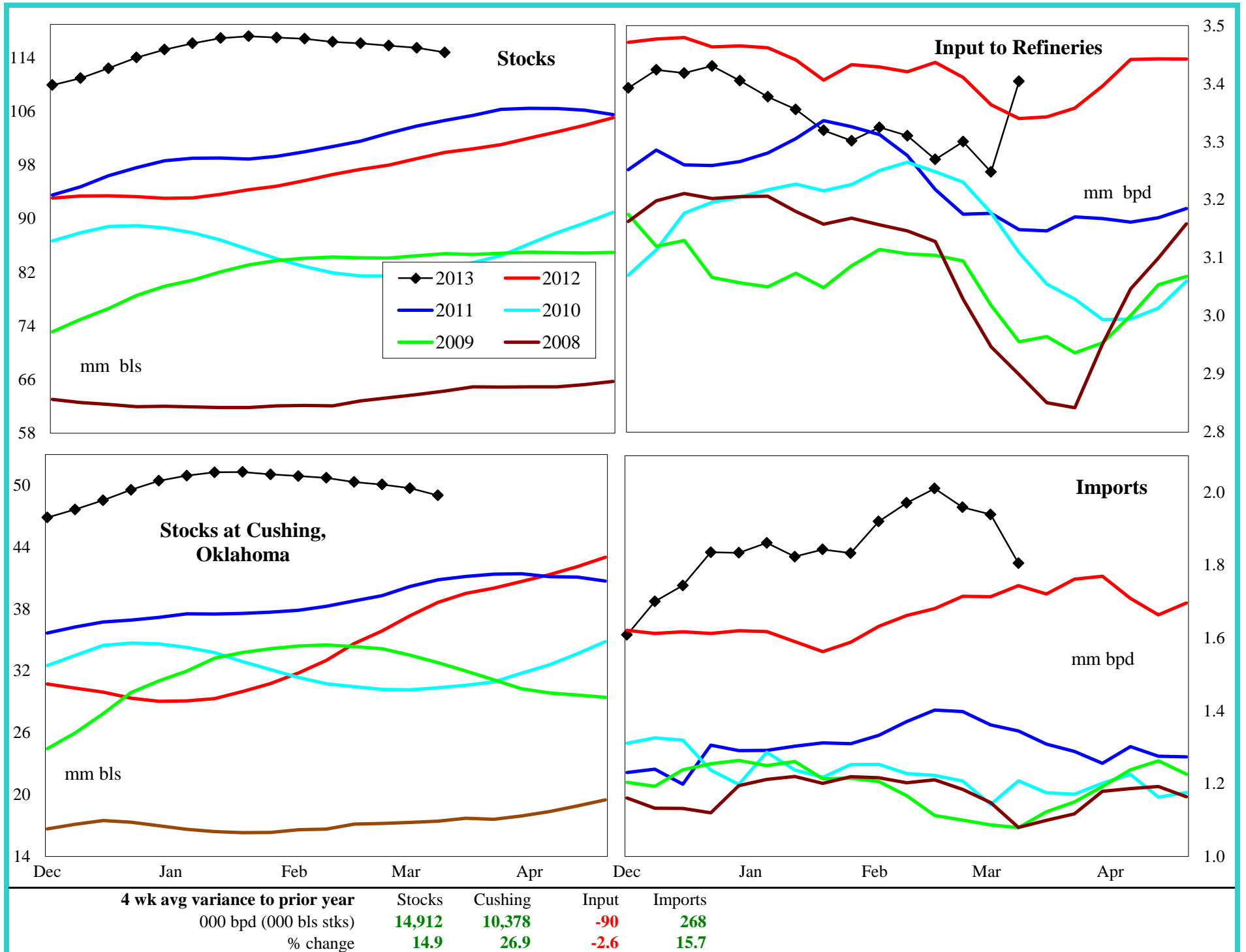


## PADD 1 Residual Fuel Oil Supply

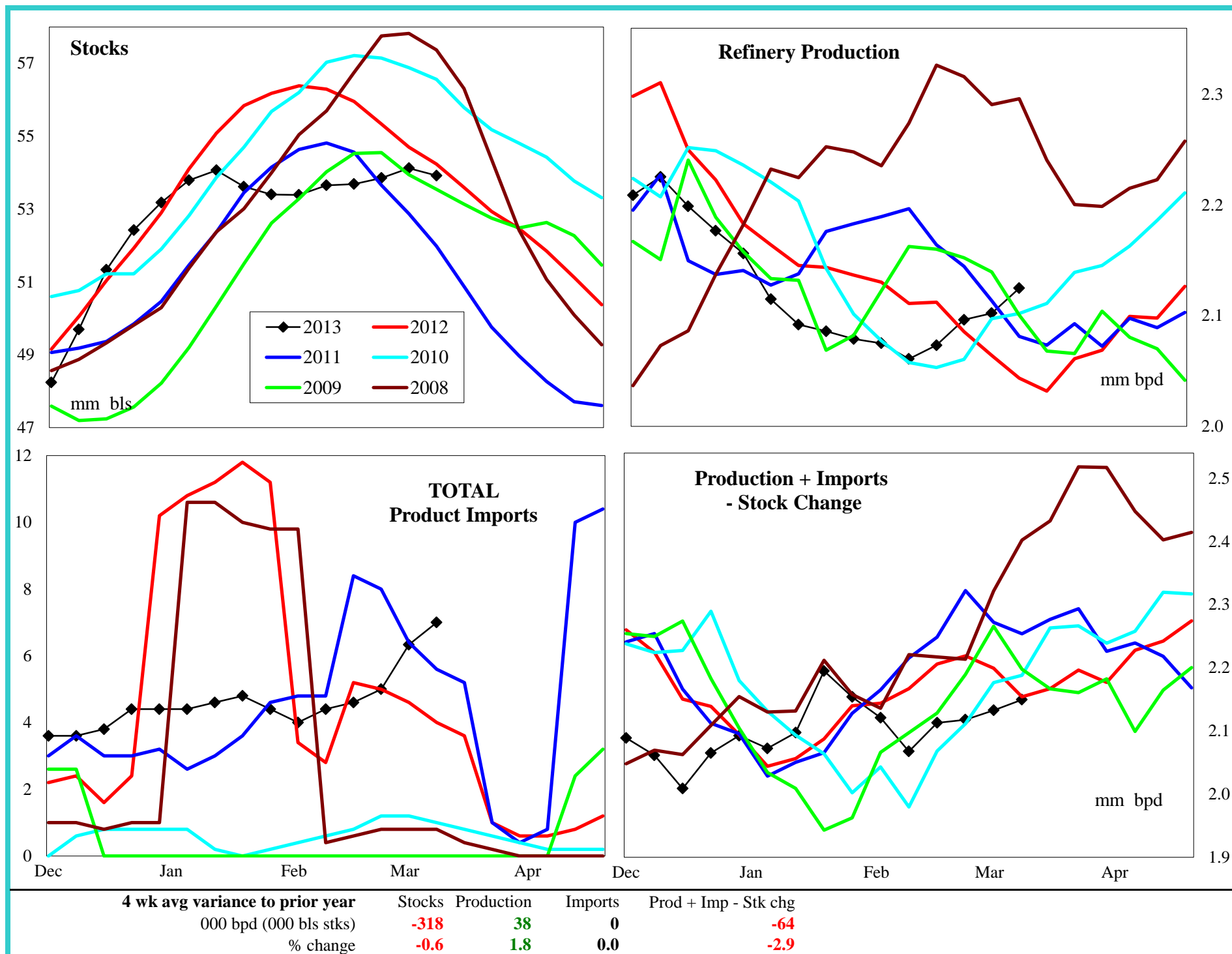




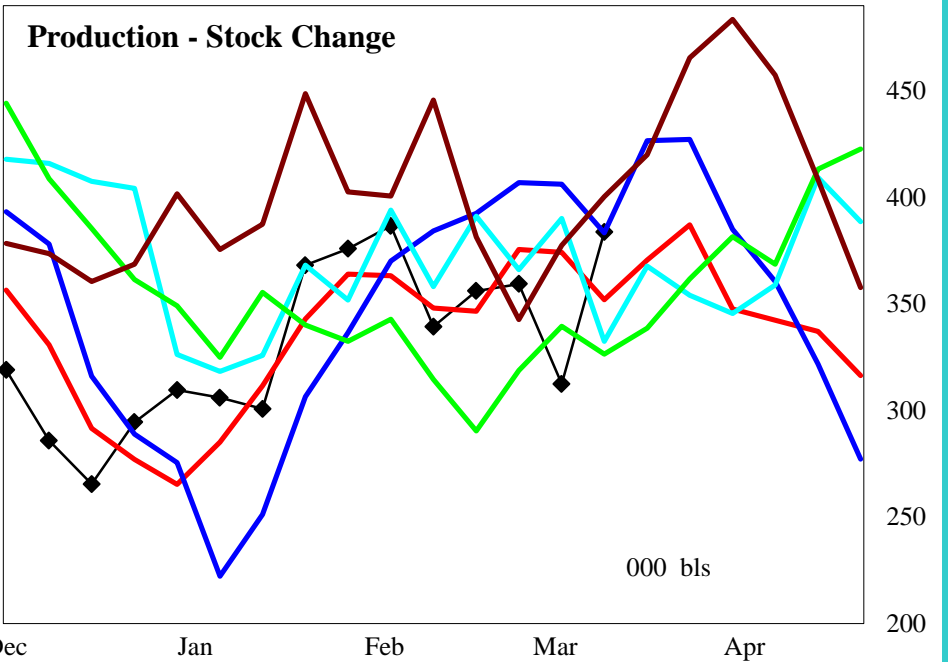
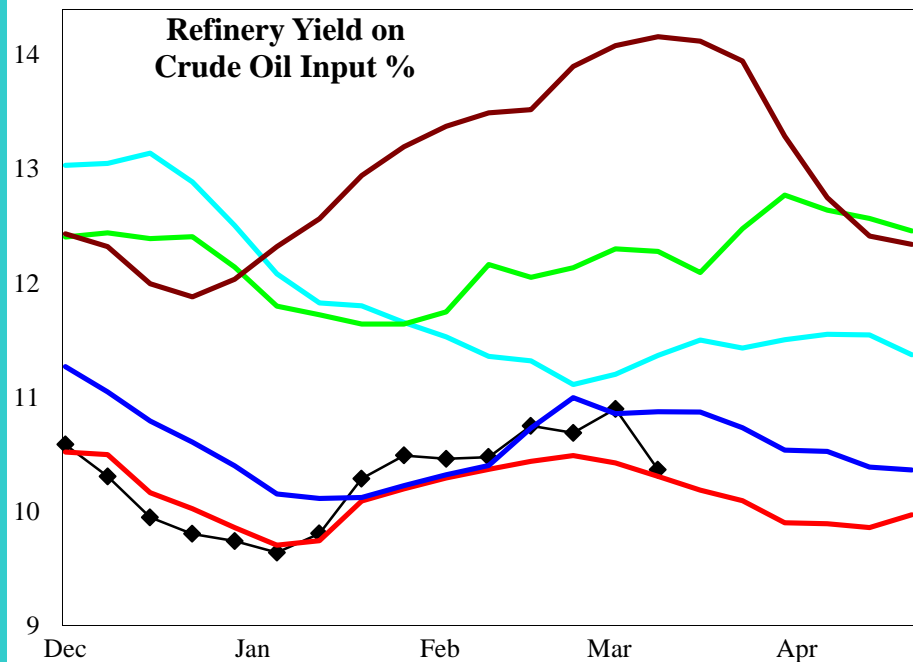
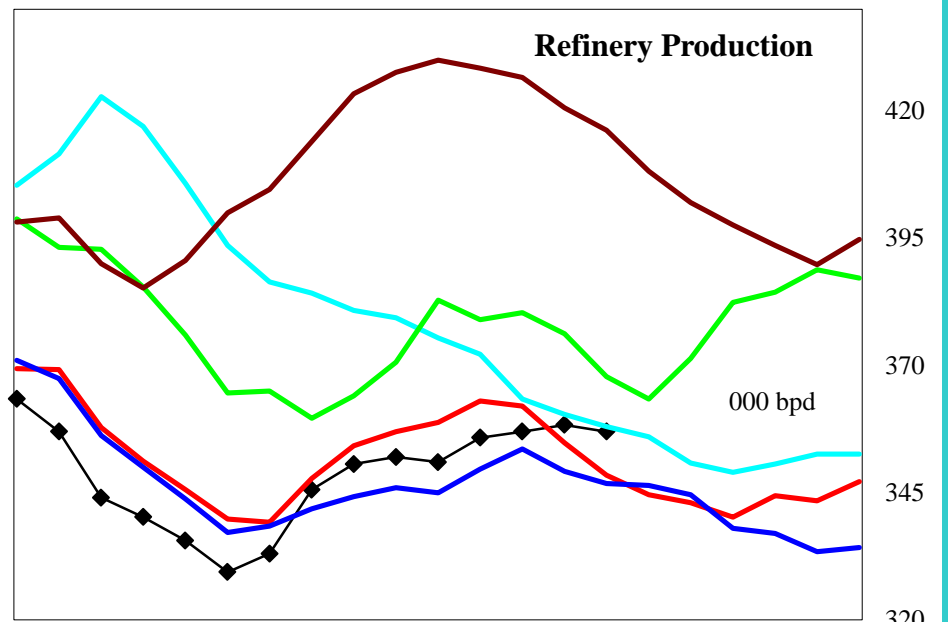
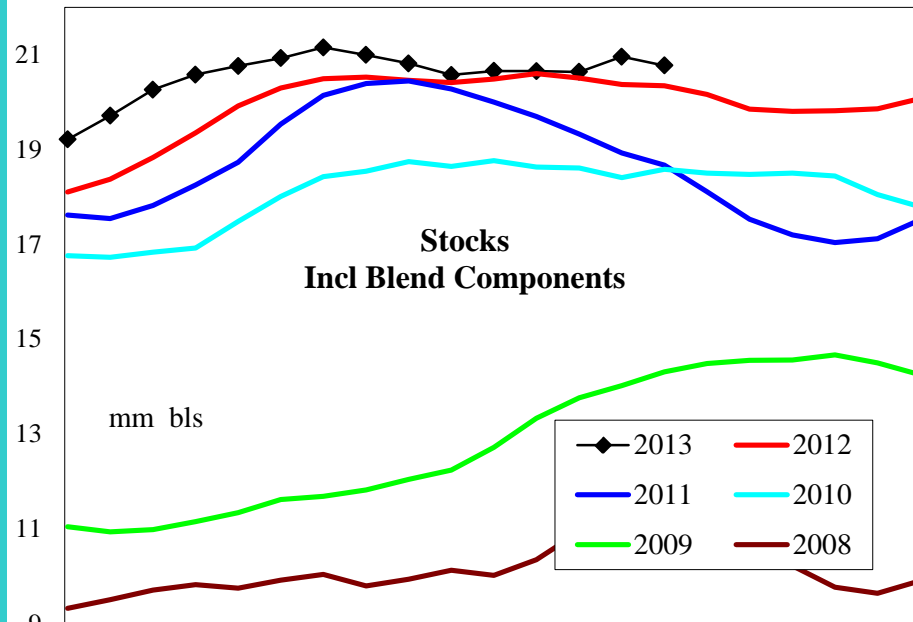
# PADD 2 Crude Oil Supply and Refining



## PADD 2 Gasoline Supply



# PADD 2 Reformulated Gasoline Supply



4 wk avg variance to prior year

000 bpd (000 bls stks)

% change

Stocks

Production

Prod - Stk chg

425

0

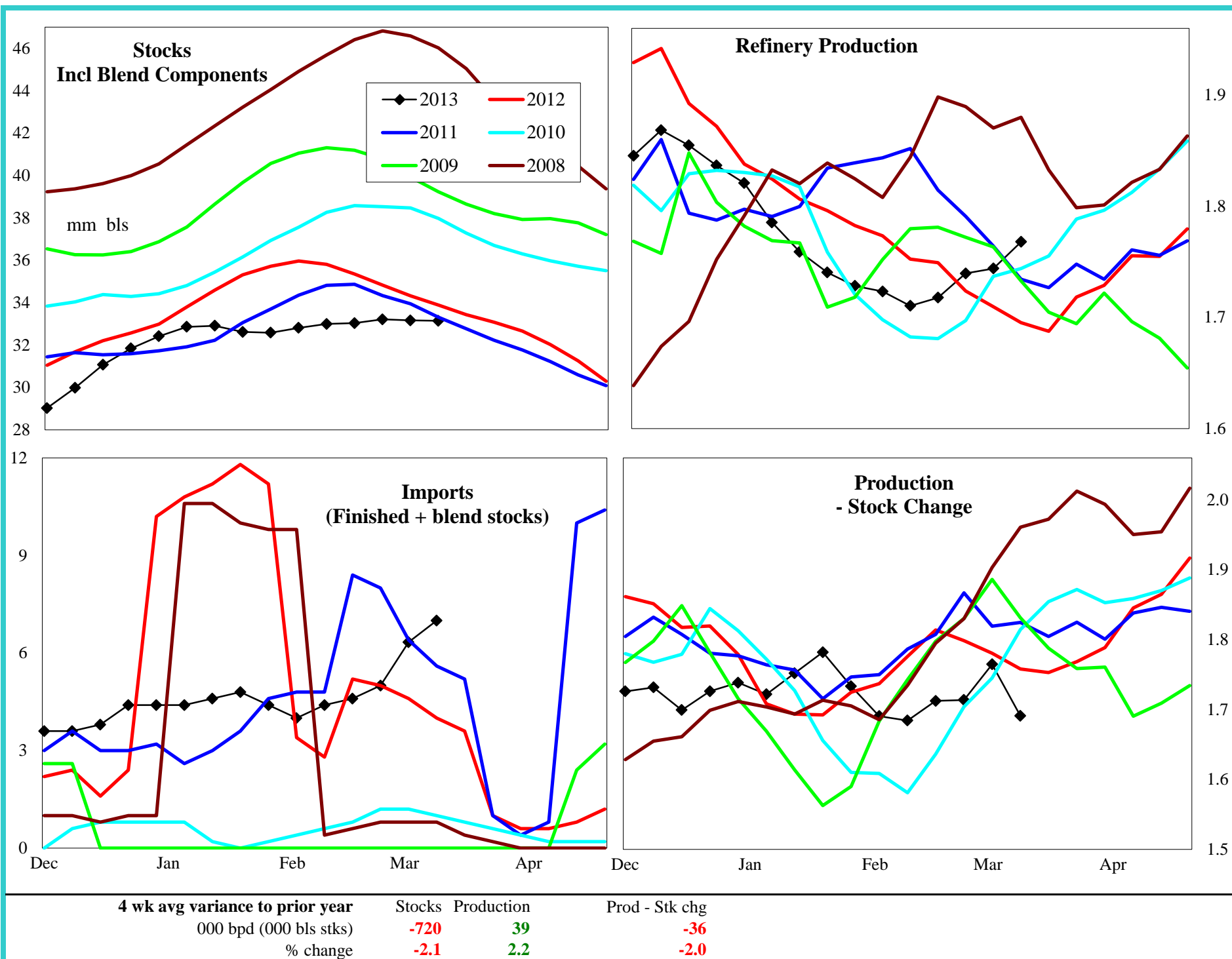
2.1

0.0

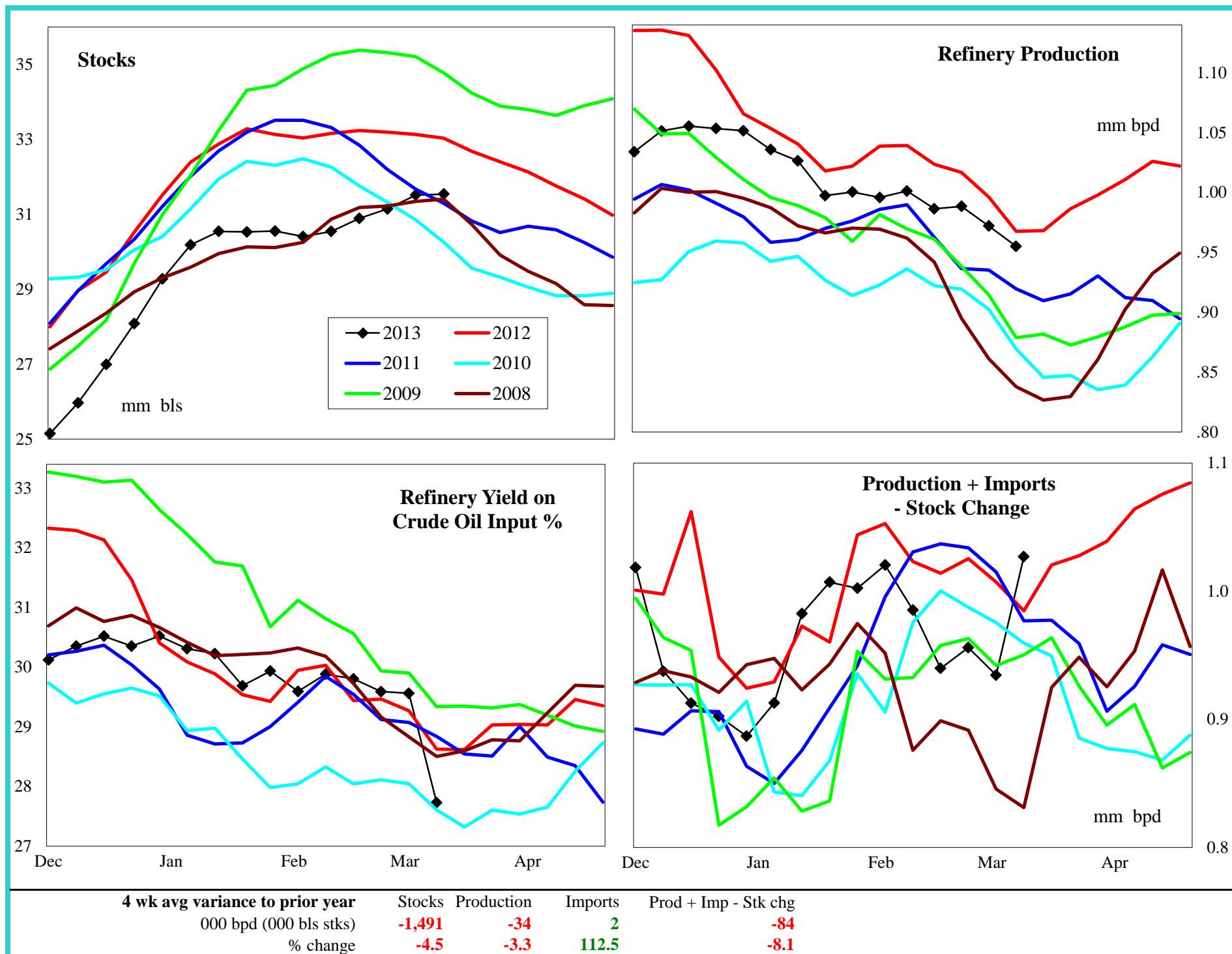
-9

-2.5

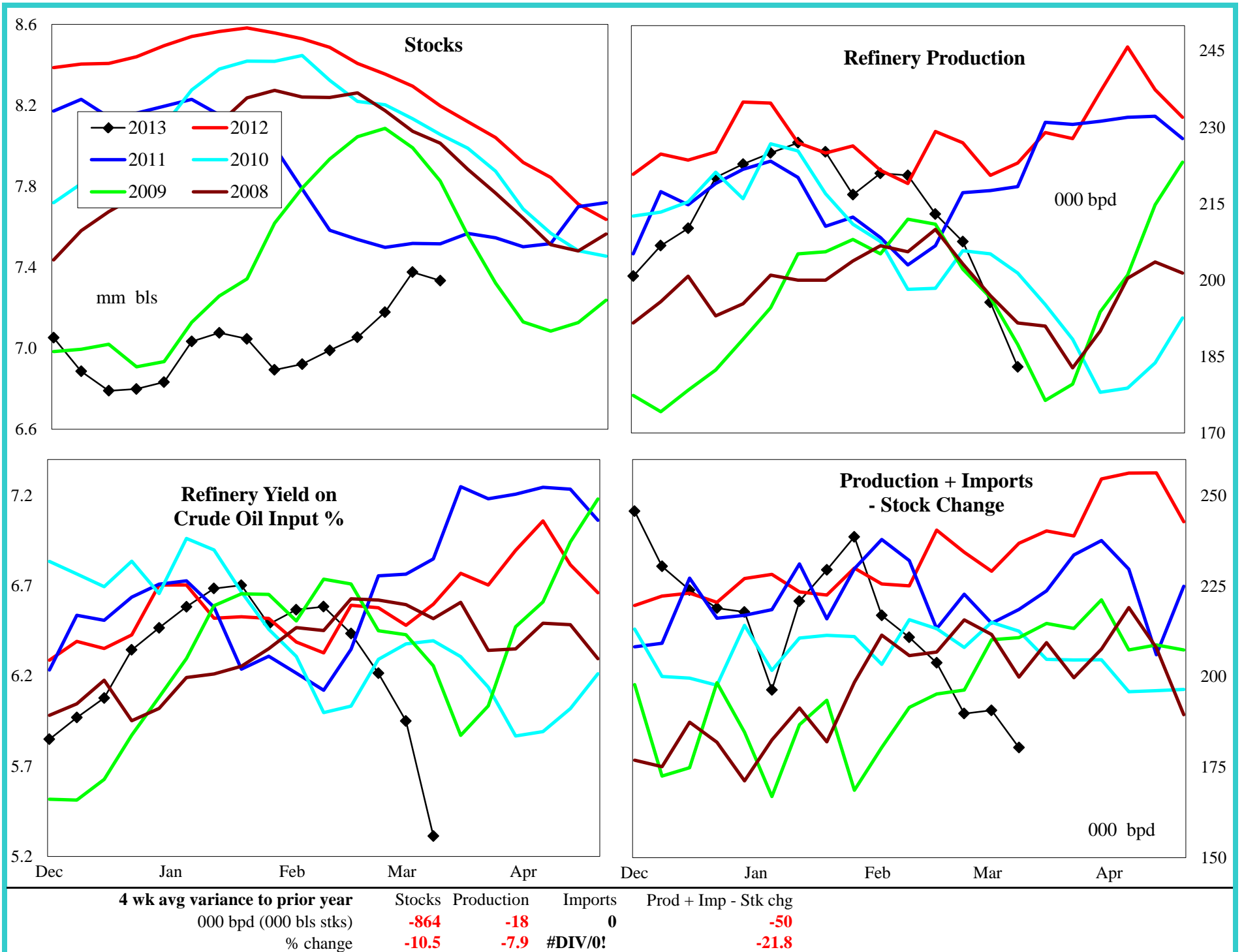
# PADD 2 Conventional Gasoline Supply



## PADD 2 Distillate Supply

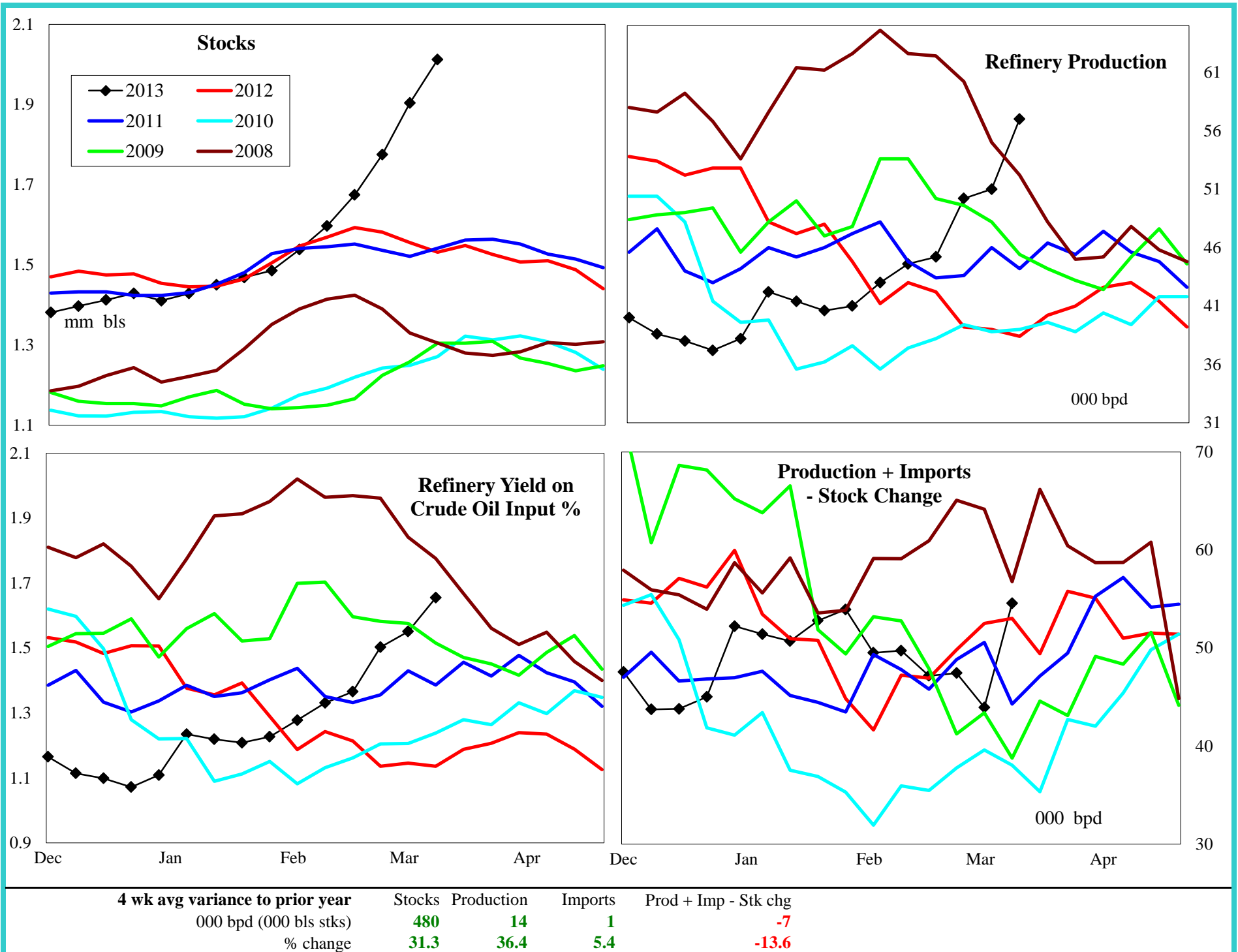


## PADD 2 Jet Fuel Supply

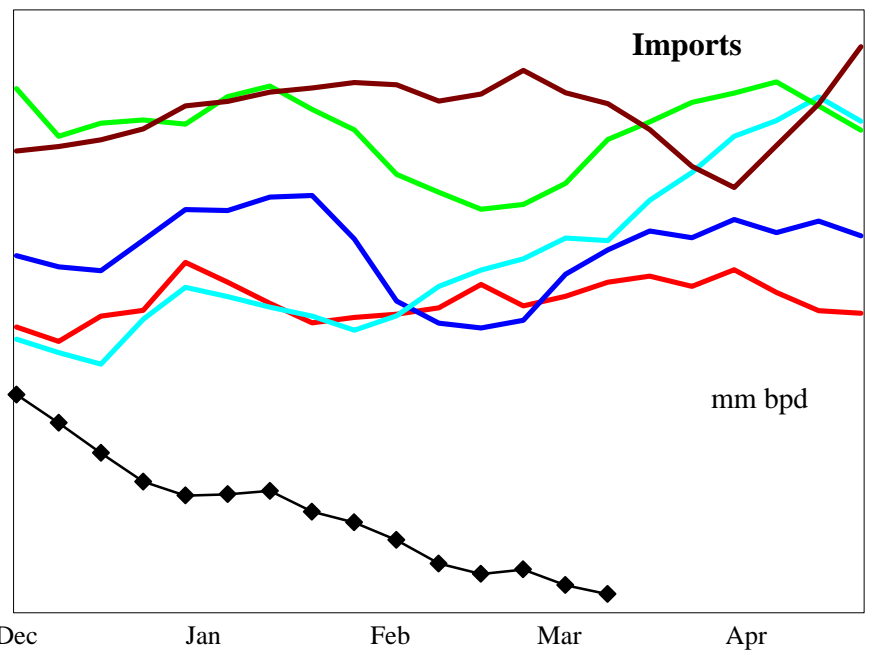
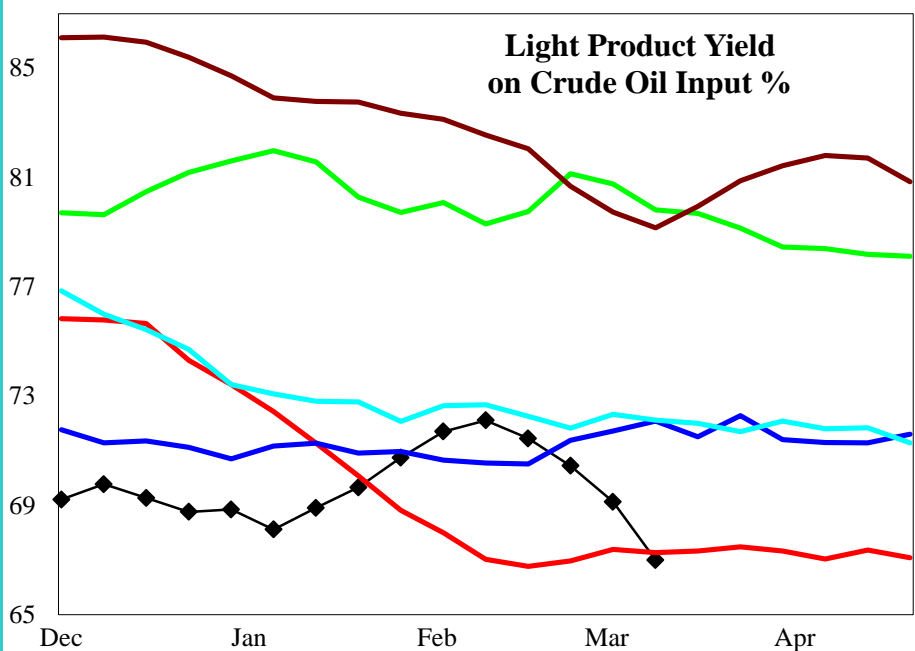
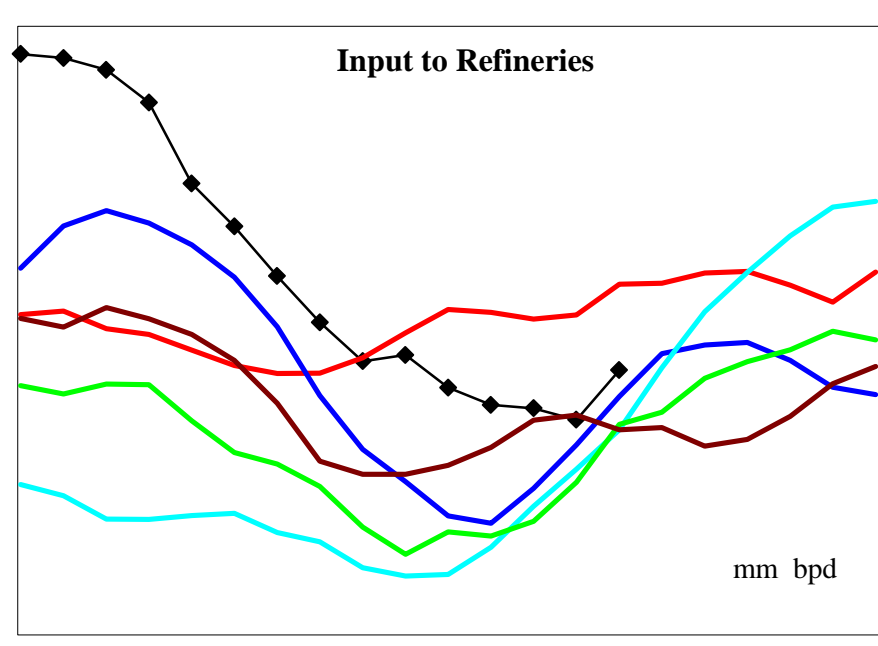
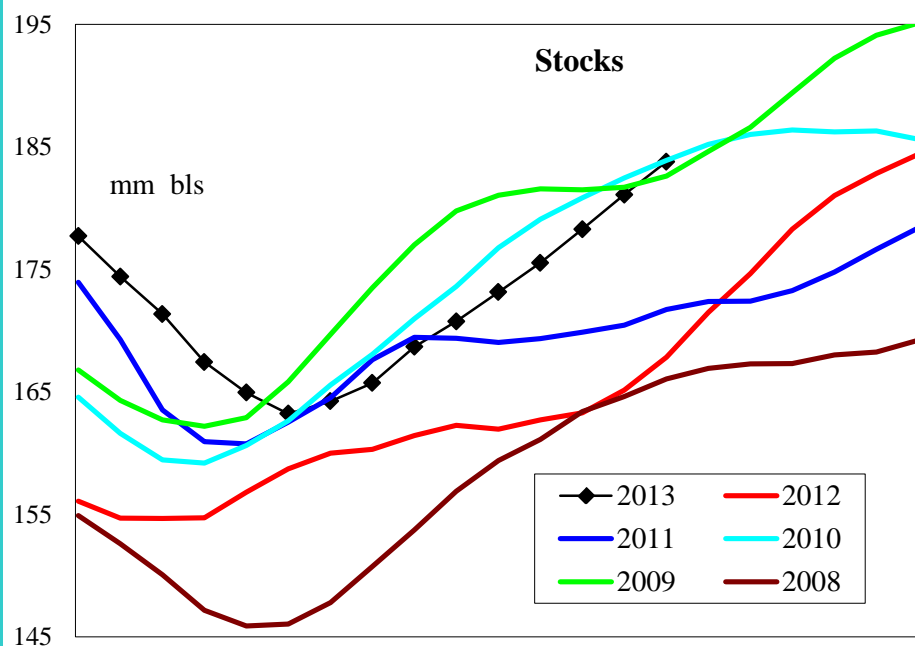




## PADD 2 Residual Fuel Oil Supply



# PADD 3 Crude Oil Supply and Refining



4 wk avg variance to prior year

000 bpd (000 bbls stks)

% change

Stocks

15,943

9.5

Input

-222

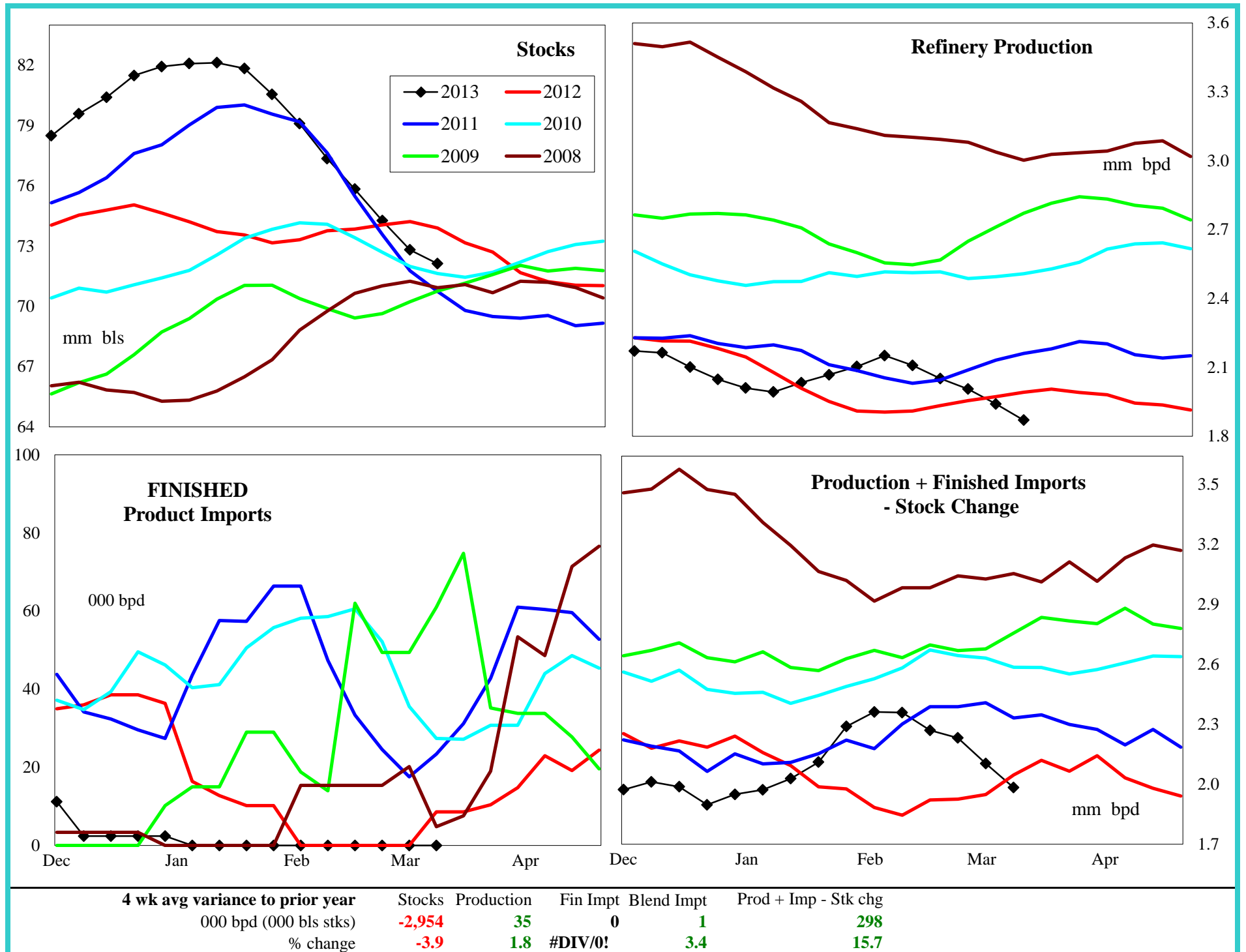
-3.0

Imports

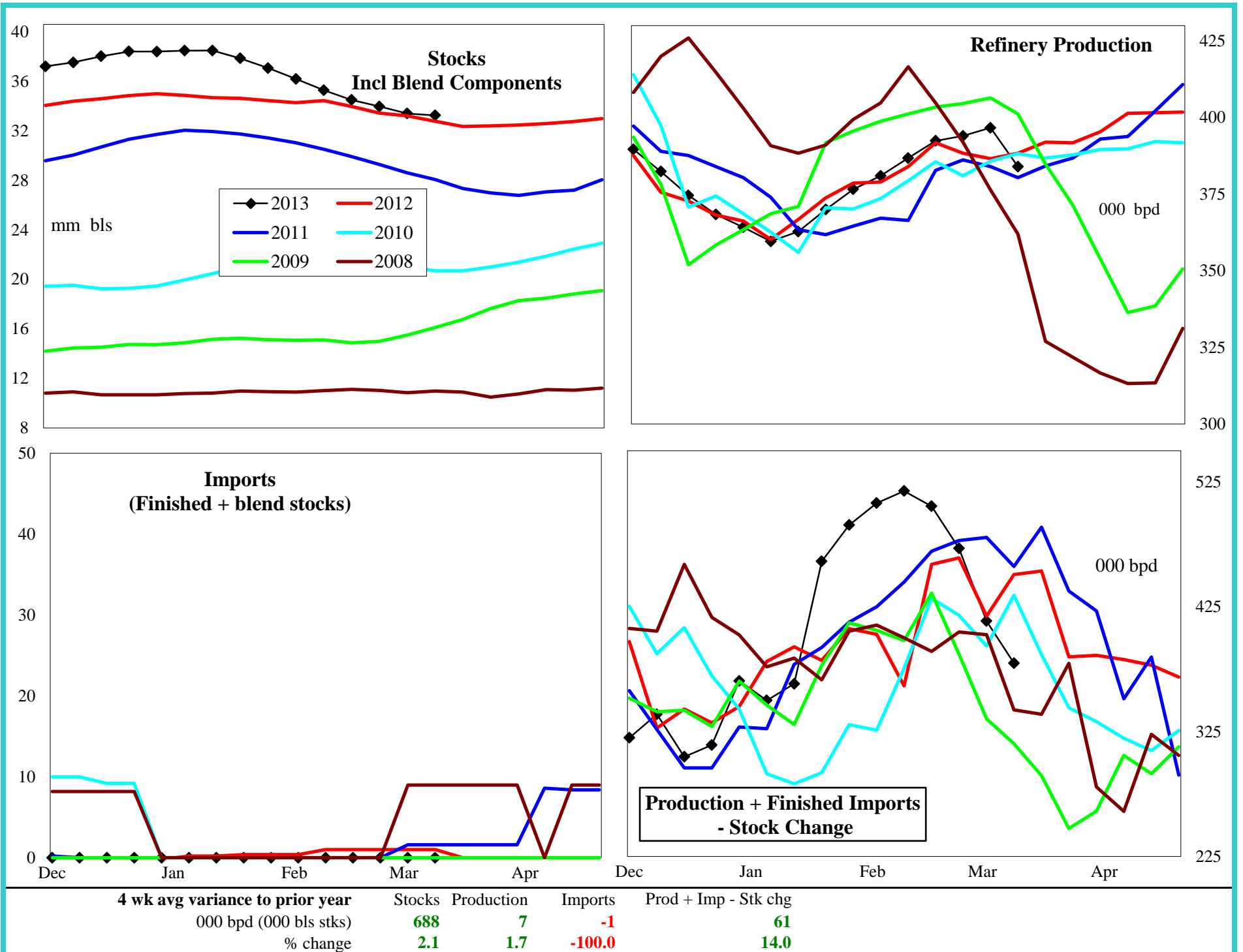
-1,405

-29.2

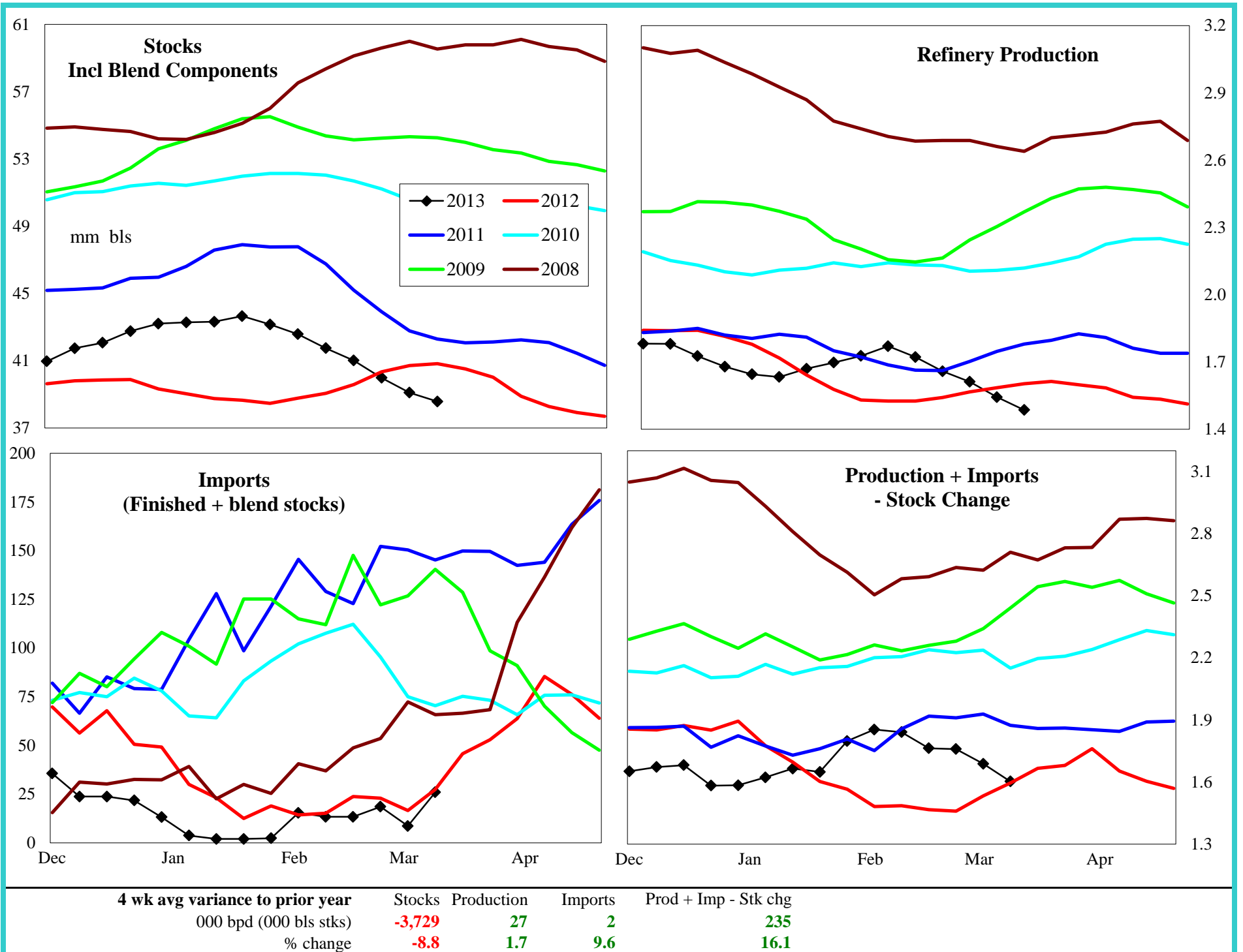
## PADD 3 Gasoline Supply



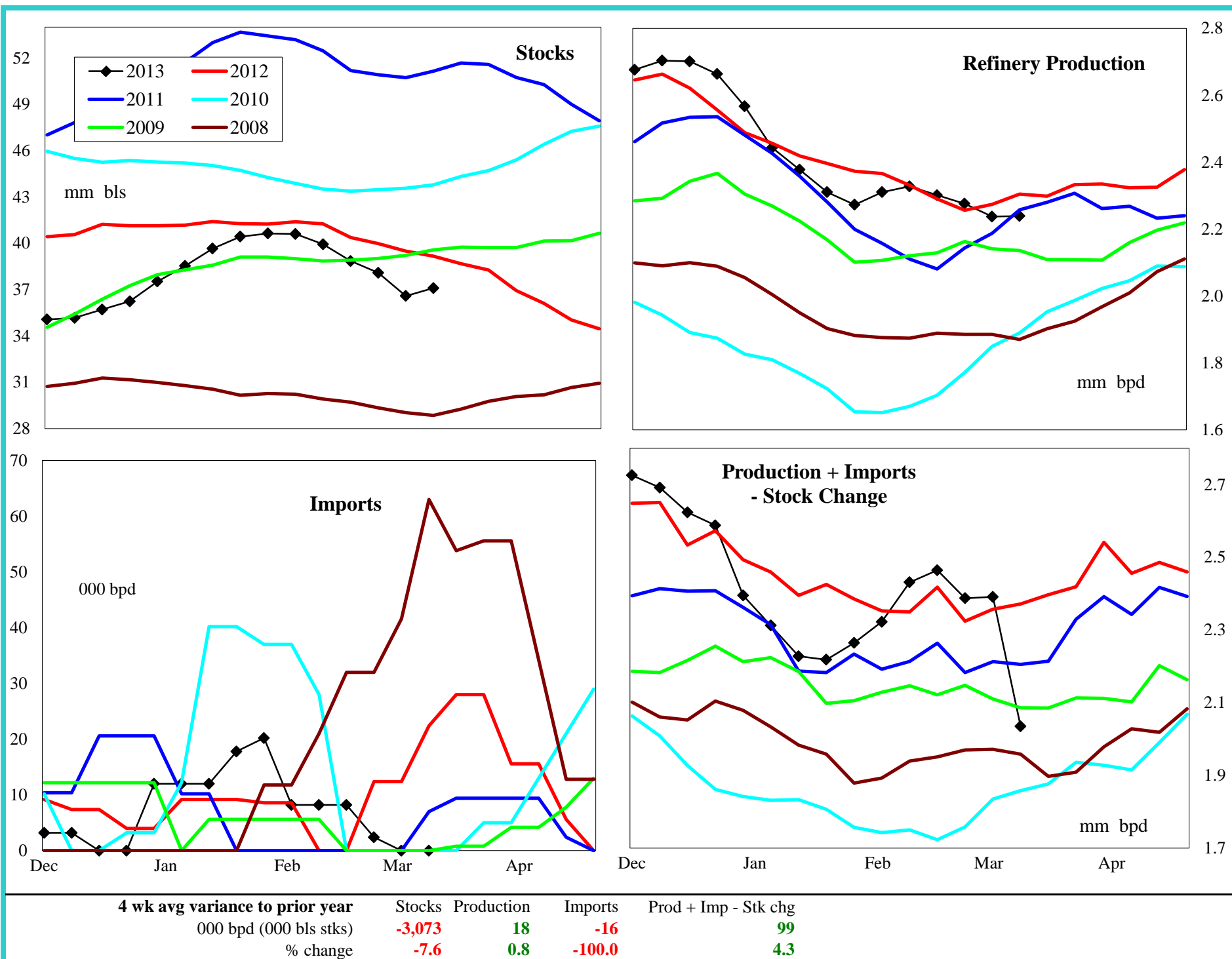
# PADD 3 Reformulated Gasoline Supply



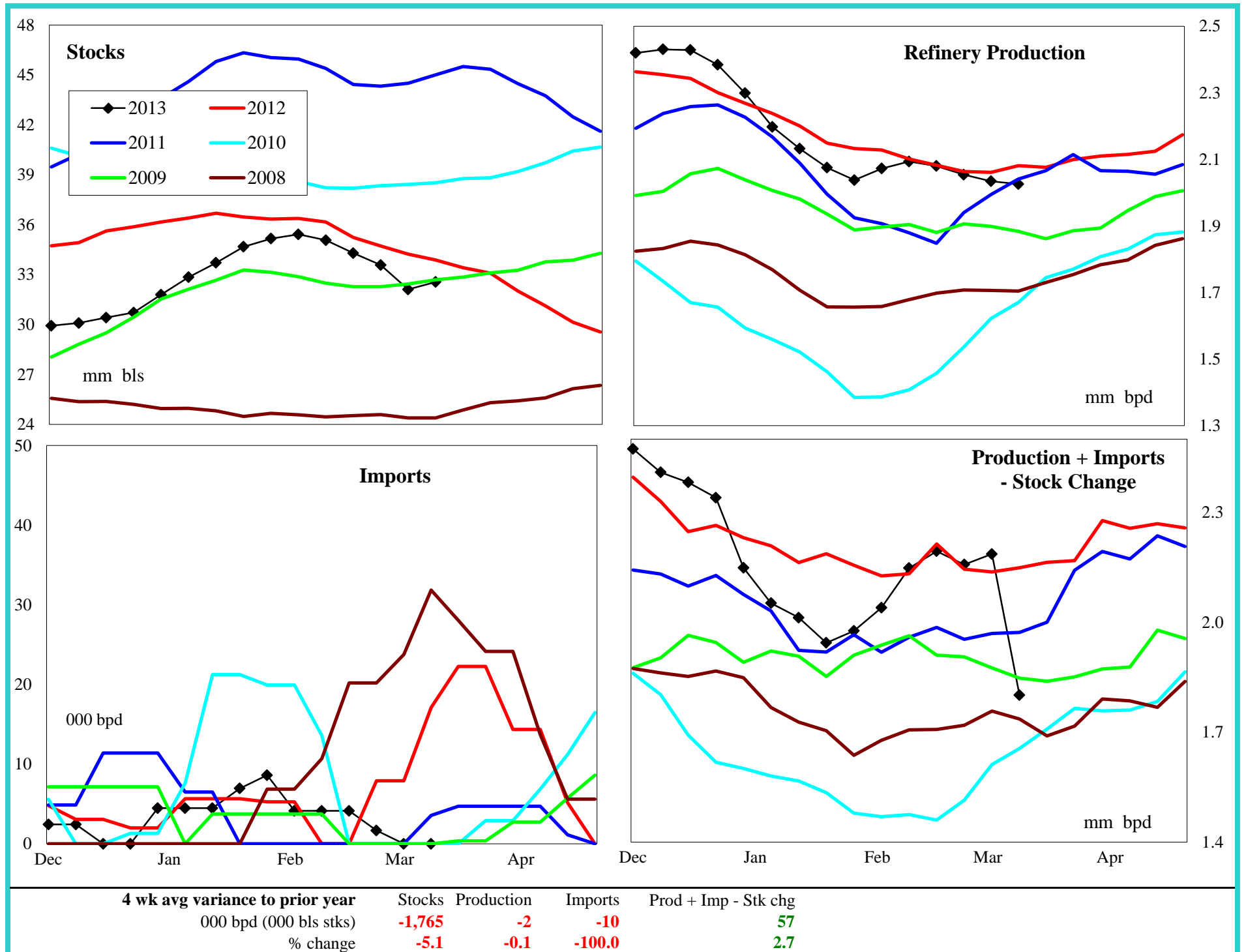
# PADD 3 Conventional Gasoline Supply



## PADD 3 Distillate Supply

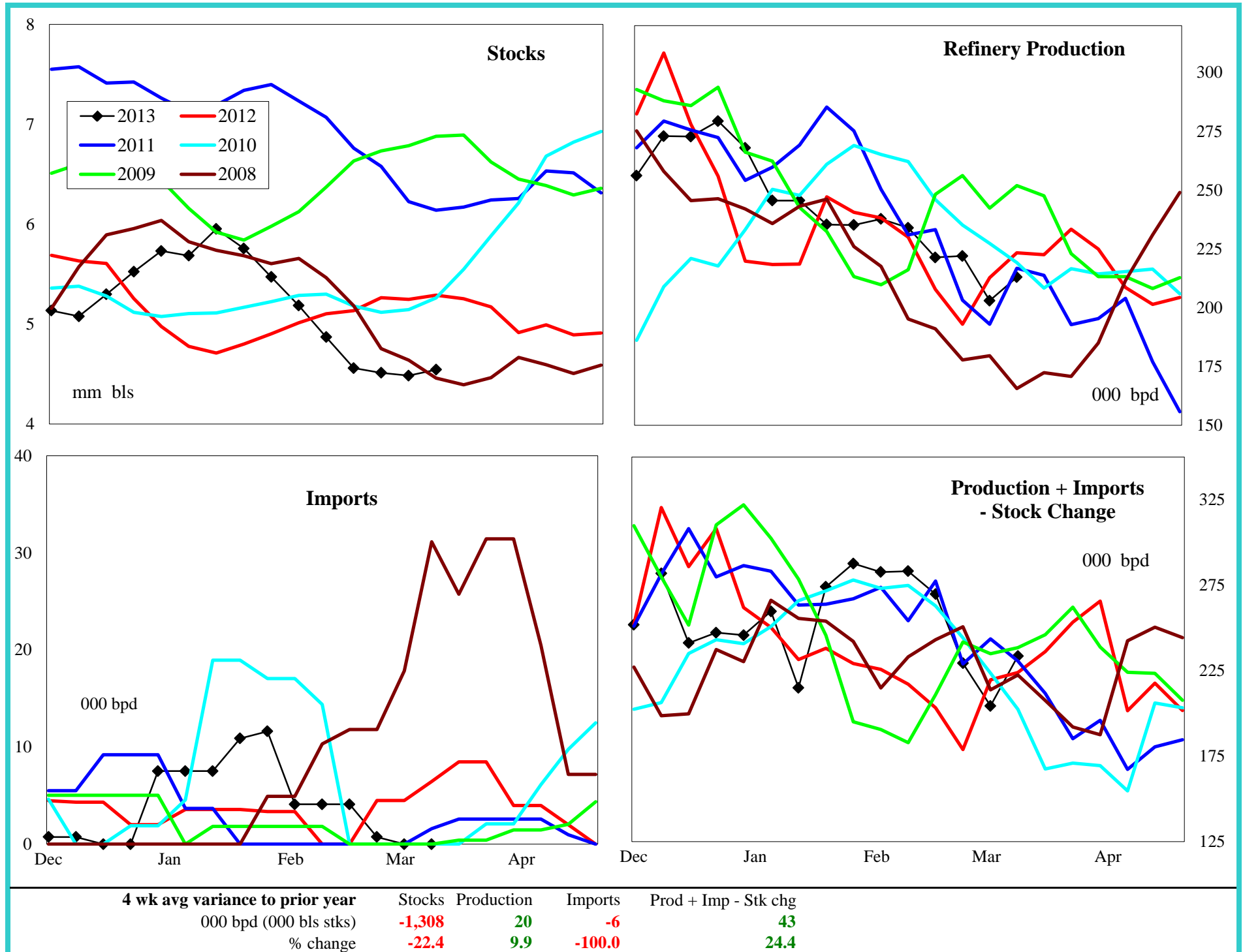


# PADD 3 Low Sulfur Distillate Supply

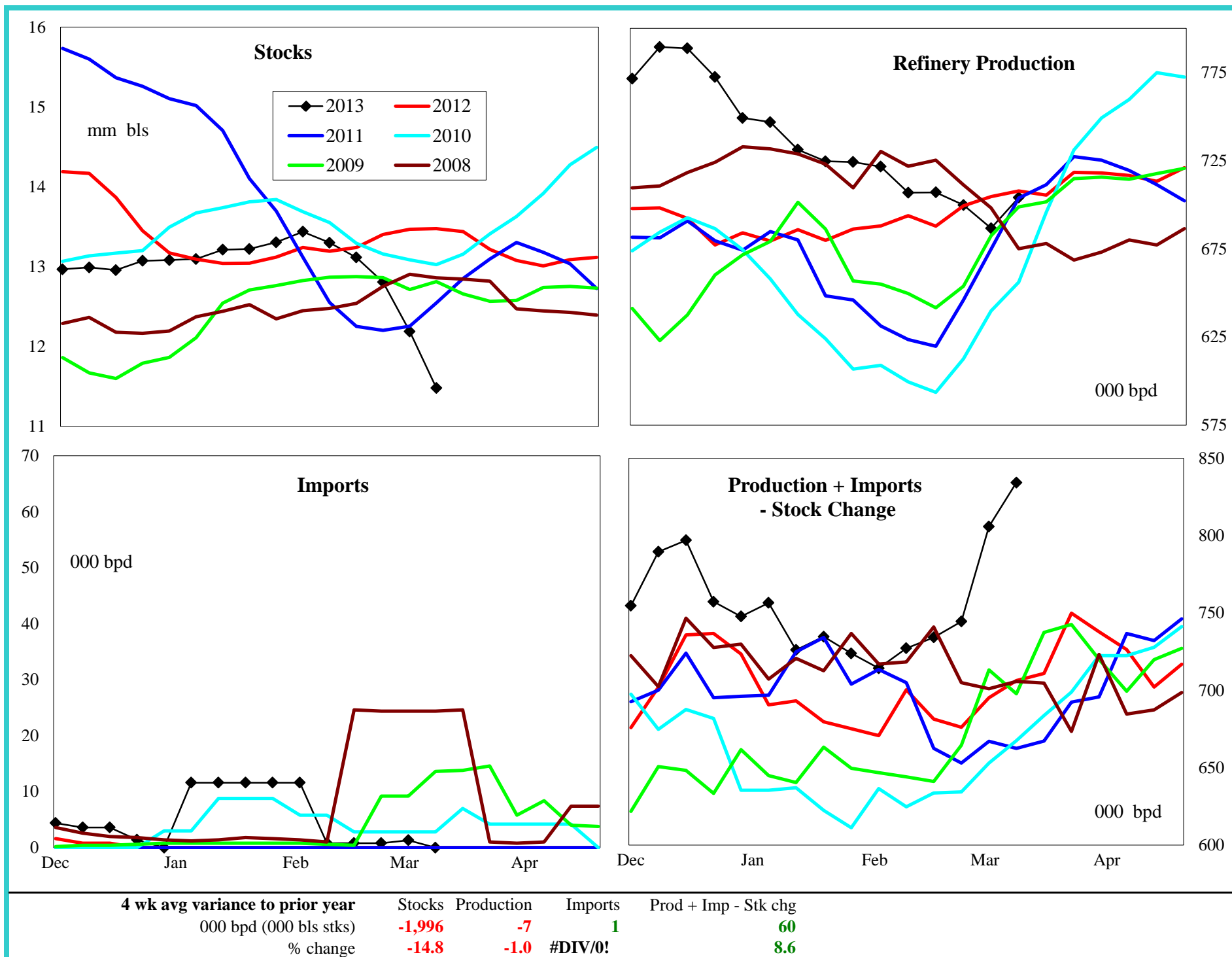




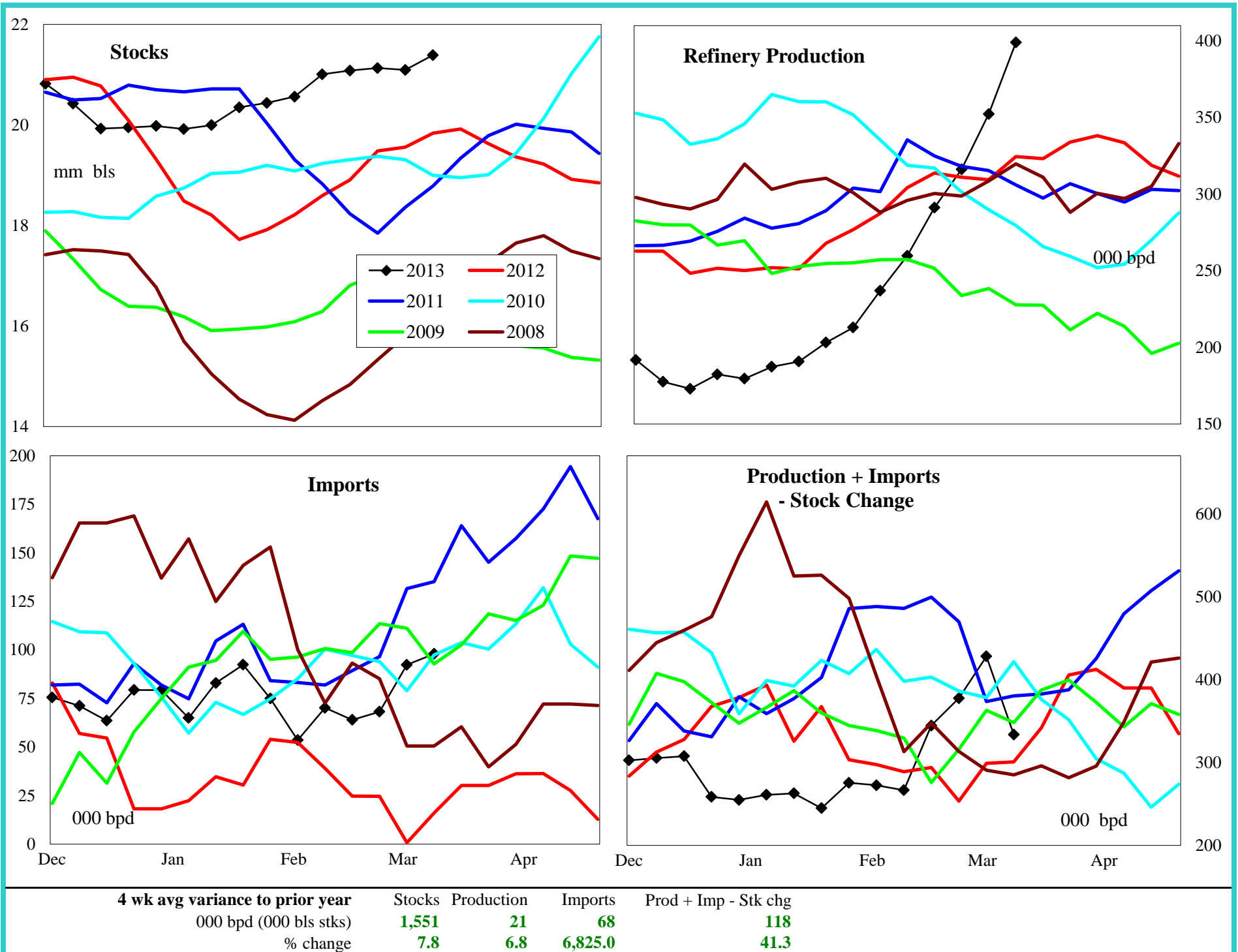
# PADD 3 High Sulfur Distillate Supply



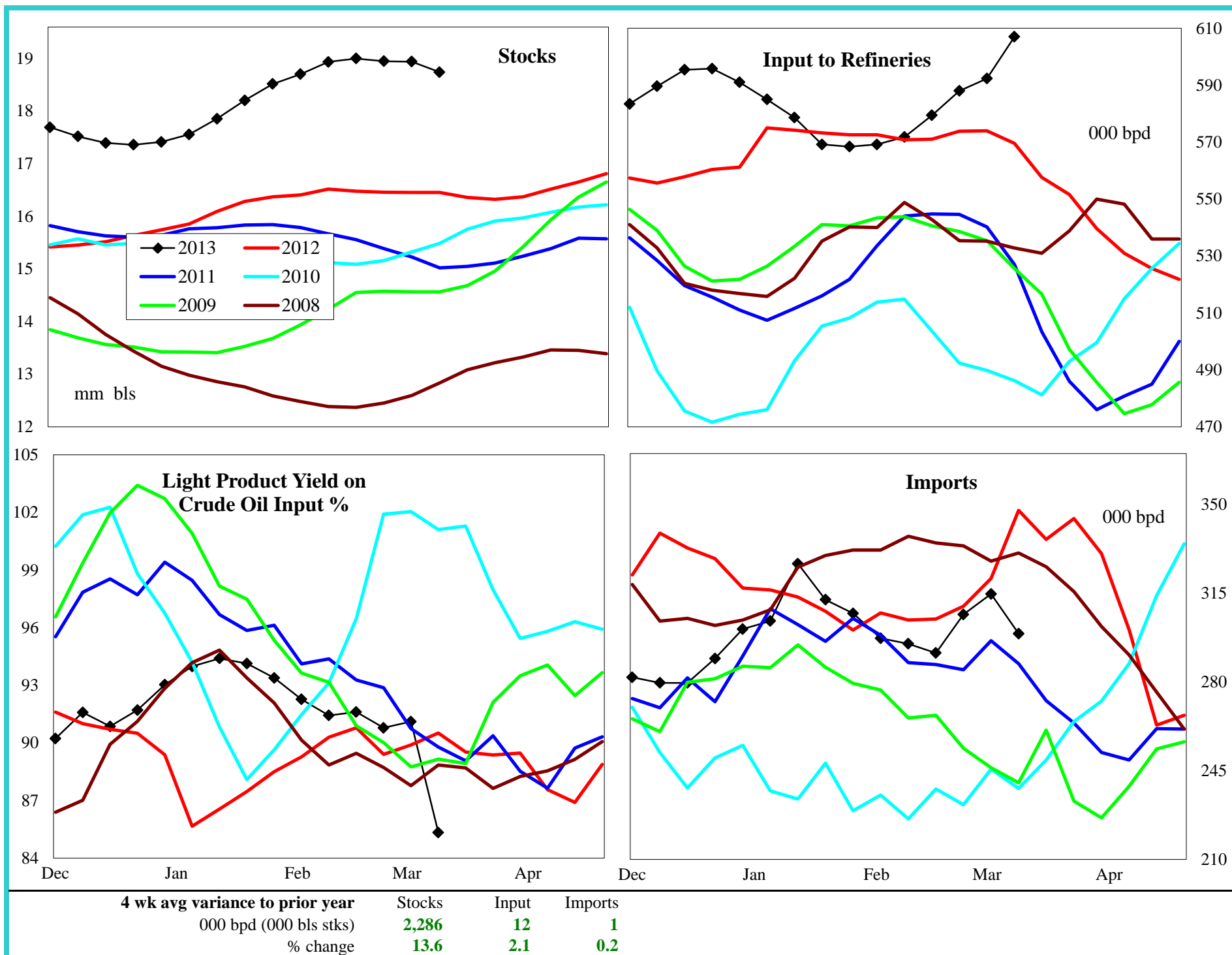
## PADD 3 Jet Fuel Supply



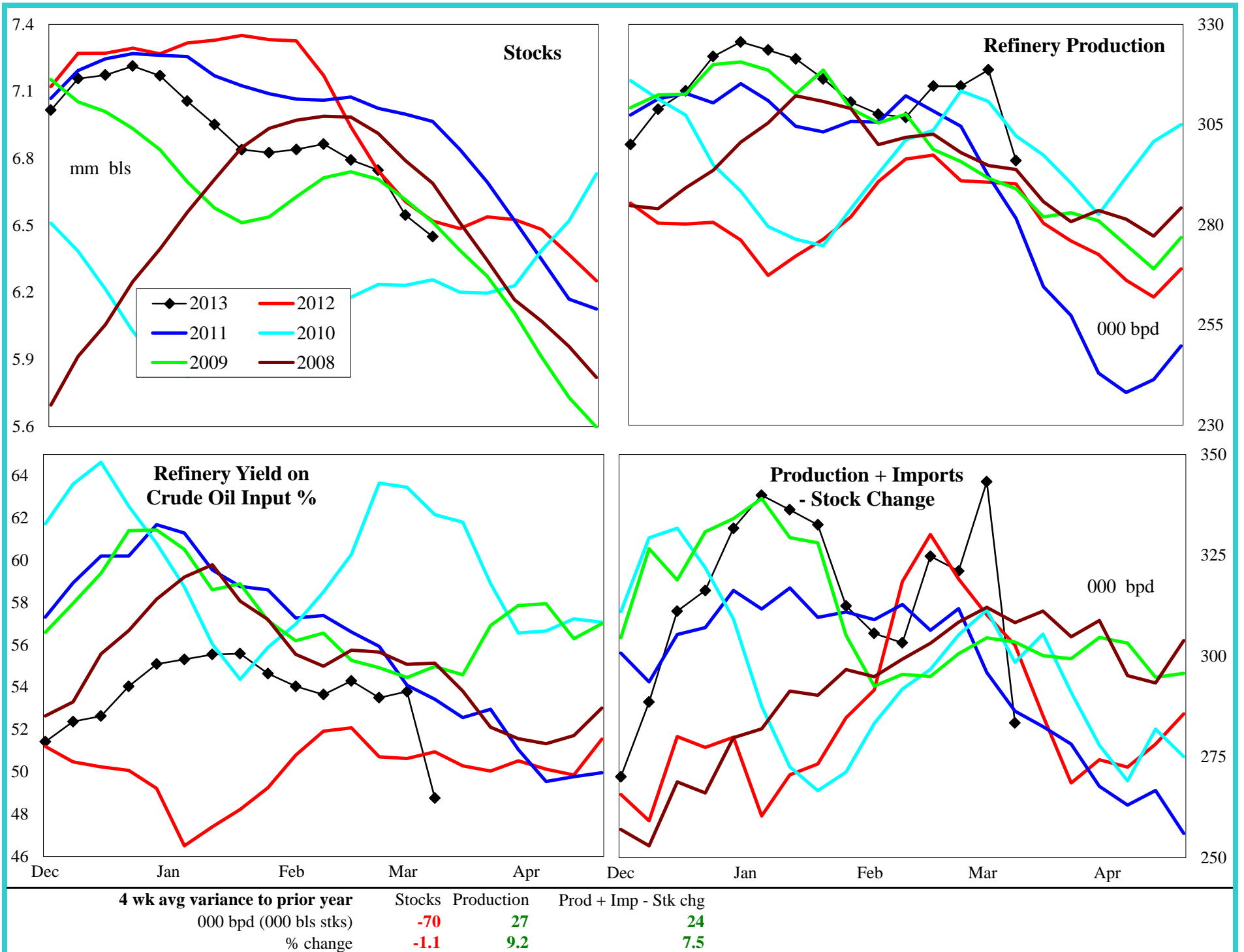
## PADD 3 Residual Fuel Oil Supply



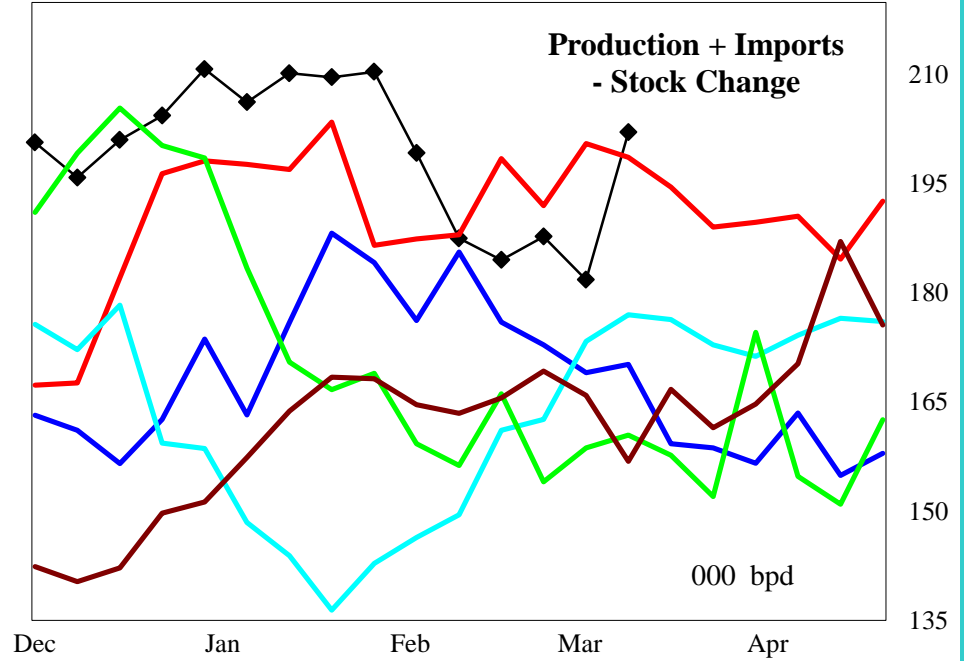
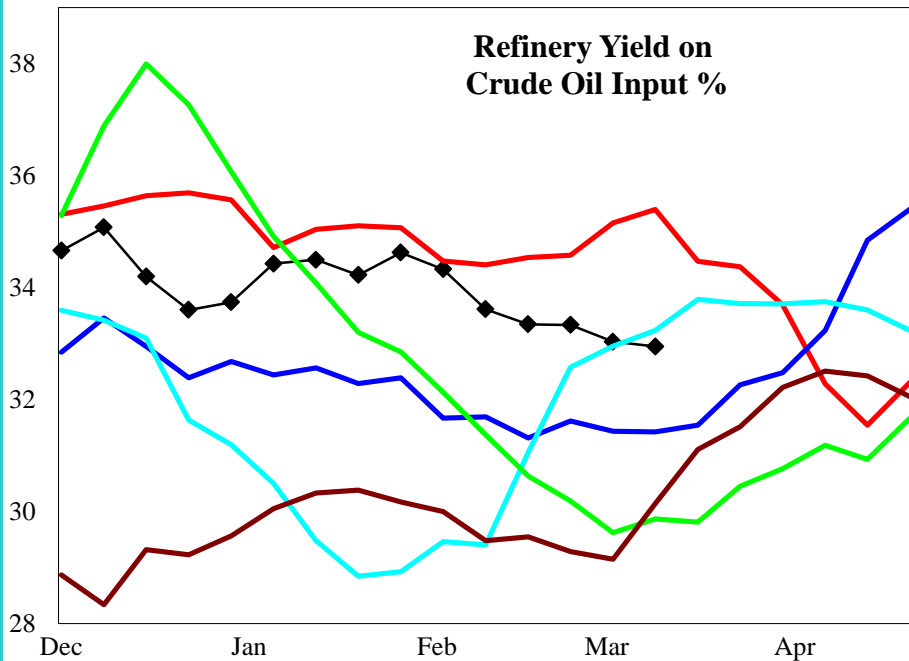
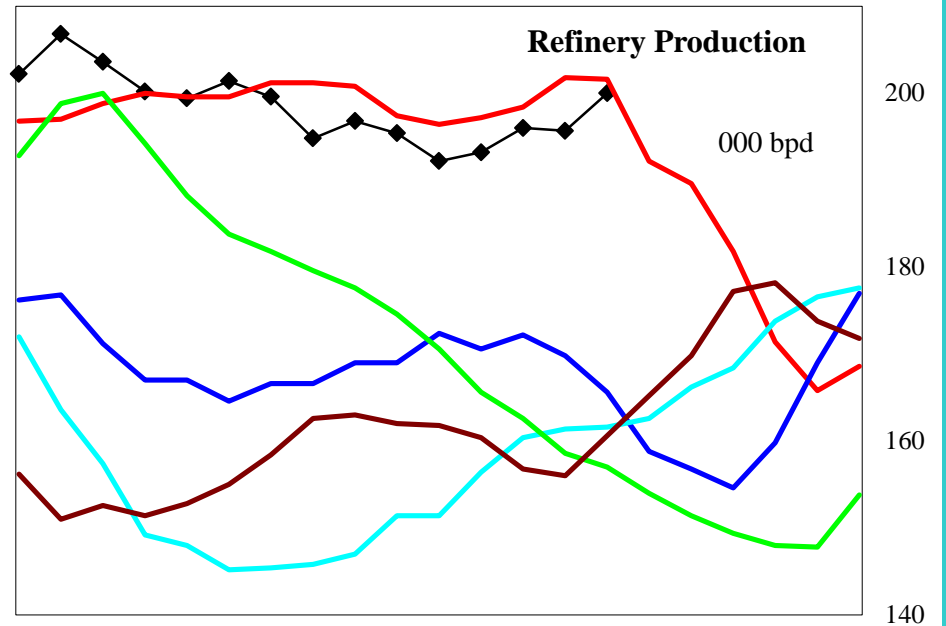
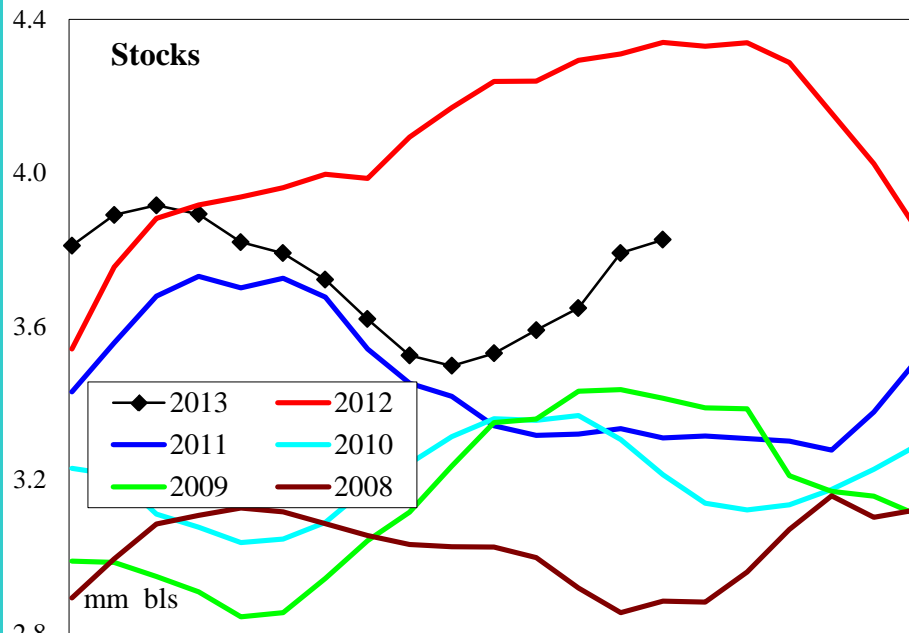
# PADD 4 Crude Oil Supply and Refining



## PADD 4 Gasoline Supply



## PADD 4 Distillate Supply



4 wk avg variance to prior year

000 bpd (000 bbls stks)

% change

Stocks

Production

Imports

Prod + Imp - Stk chg

-514

-4

-1

-9

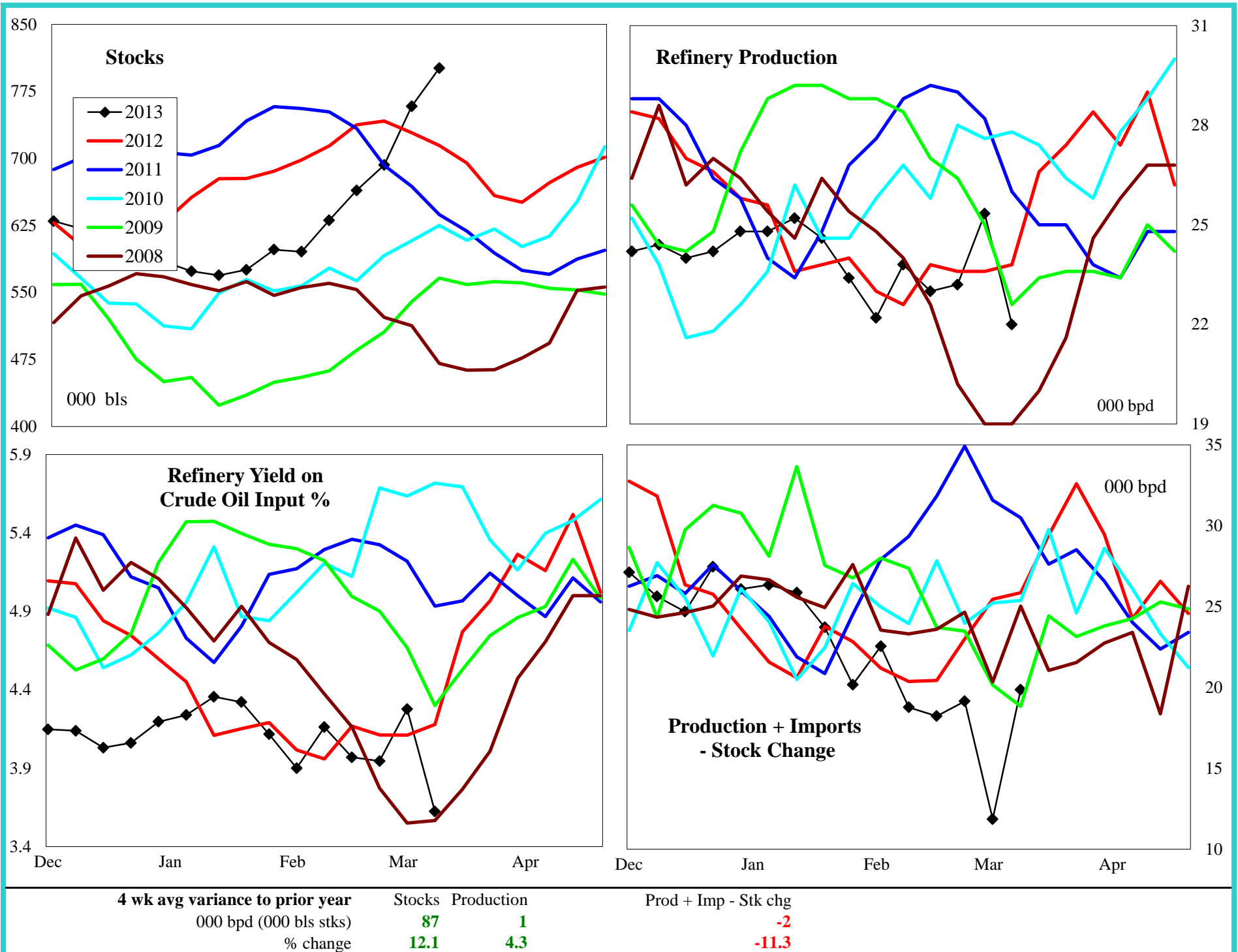
-11.8

-1.9

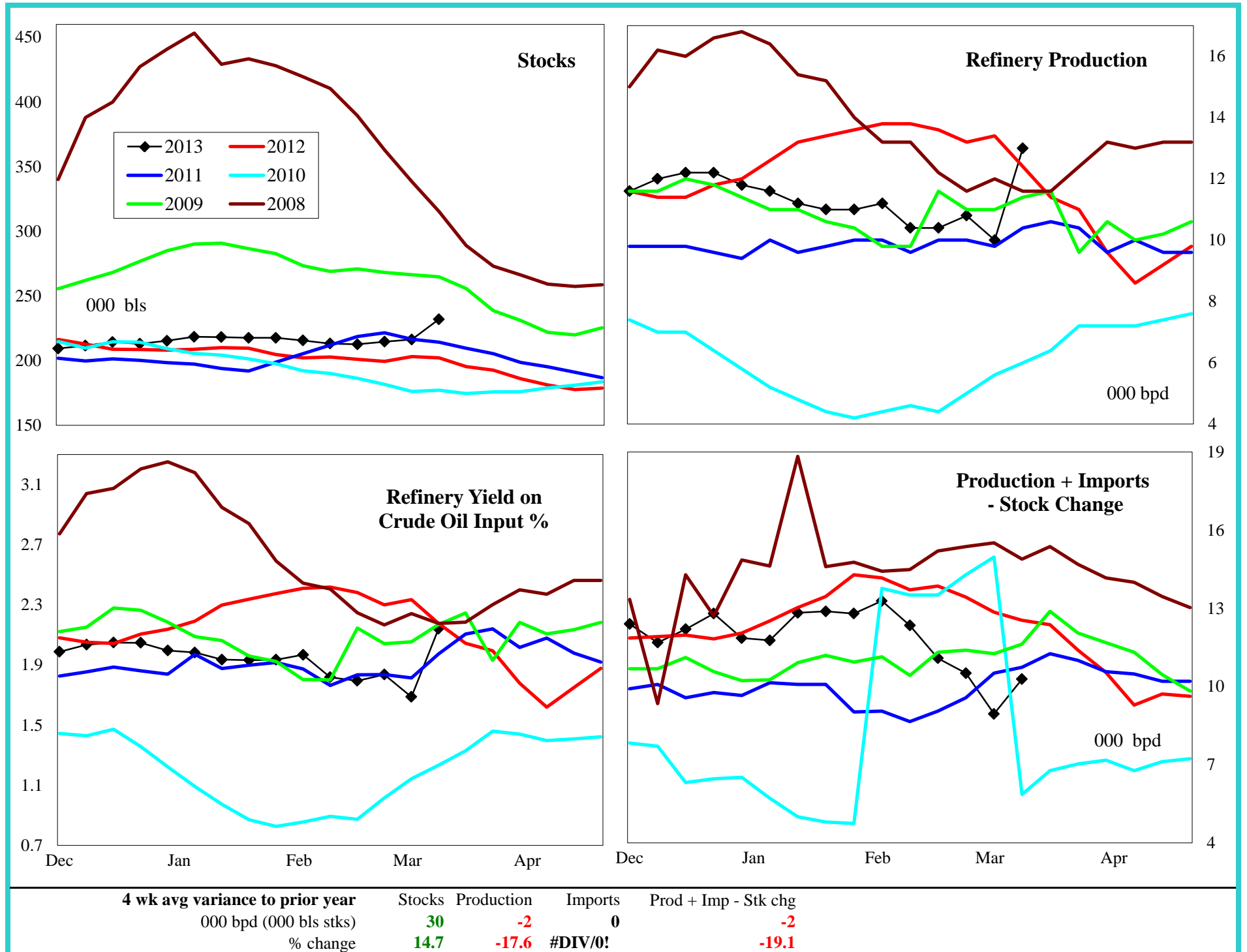
-100.0

-4.4

## PADD 4 Jet Fuel Supply

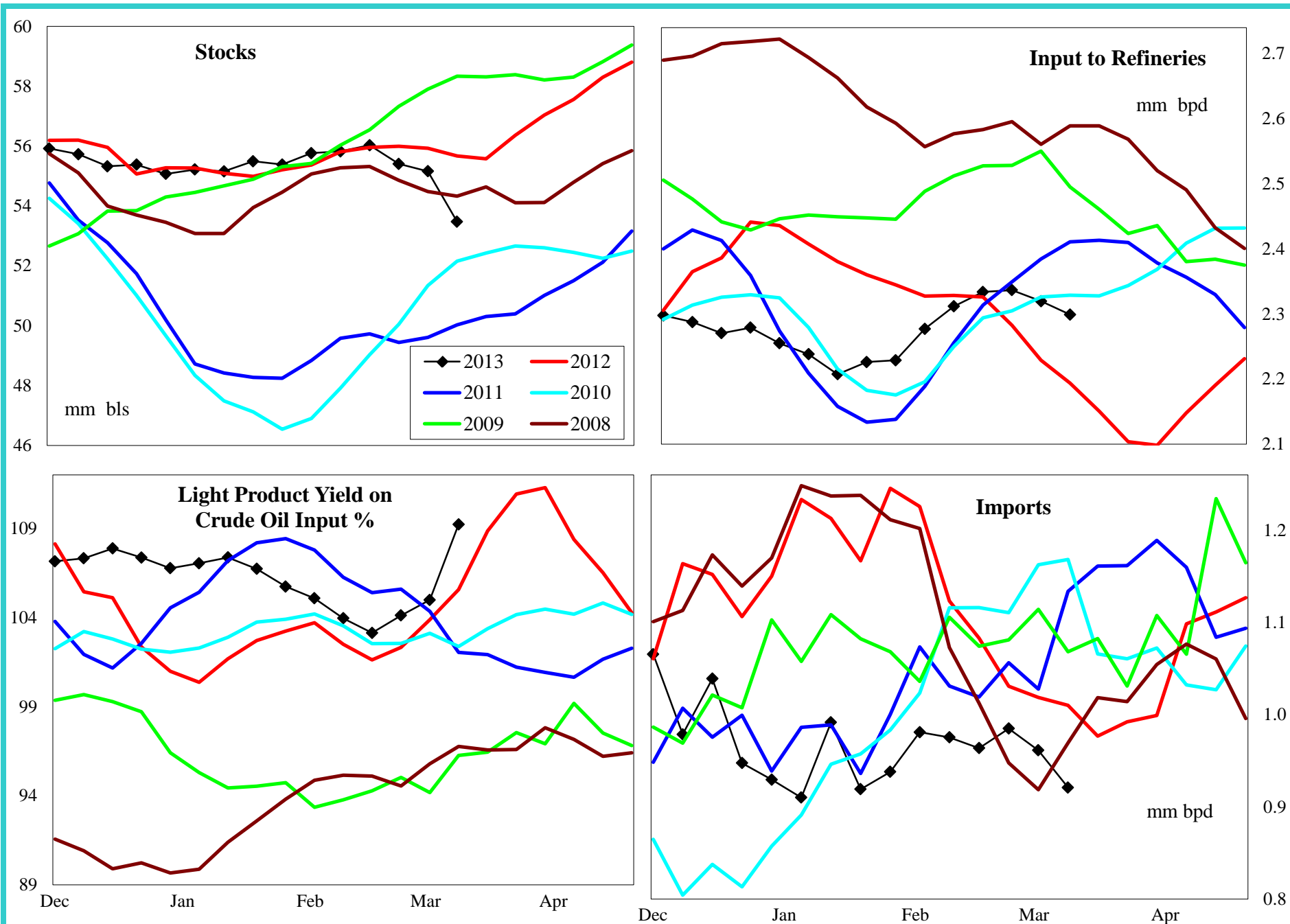


## PADD 4 Residual Fuel Oil Supply





# PADD 5 Crude Oil Supply and Refining



4 wk avg variance to prior year

000 bpd (000 bls stks)

% change

Stocks

-2,200

-4.0

Input

74

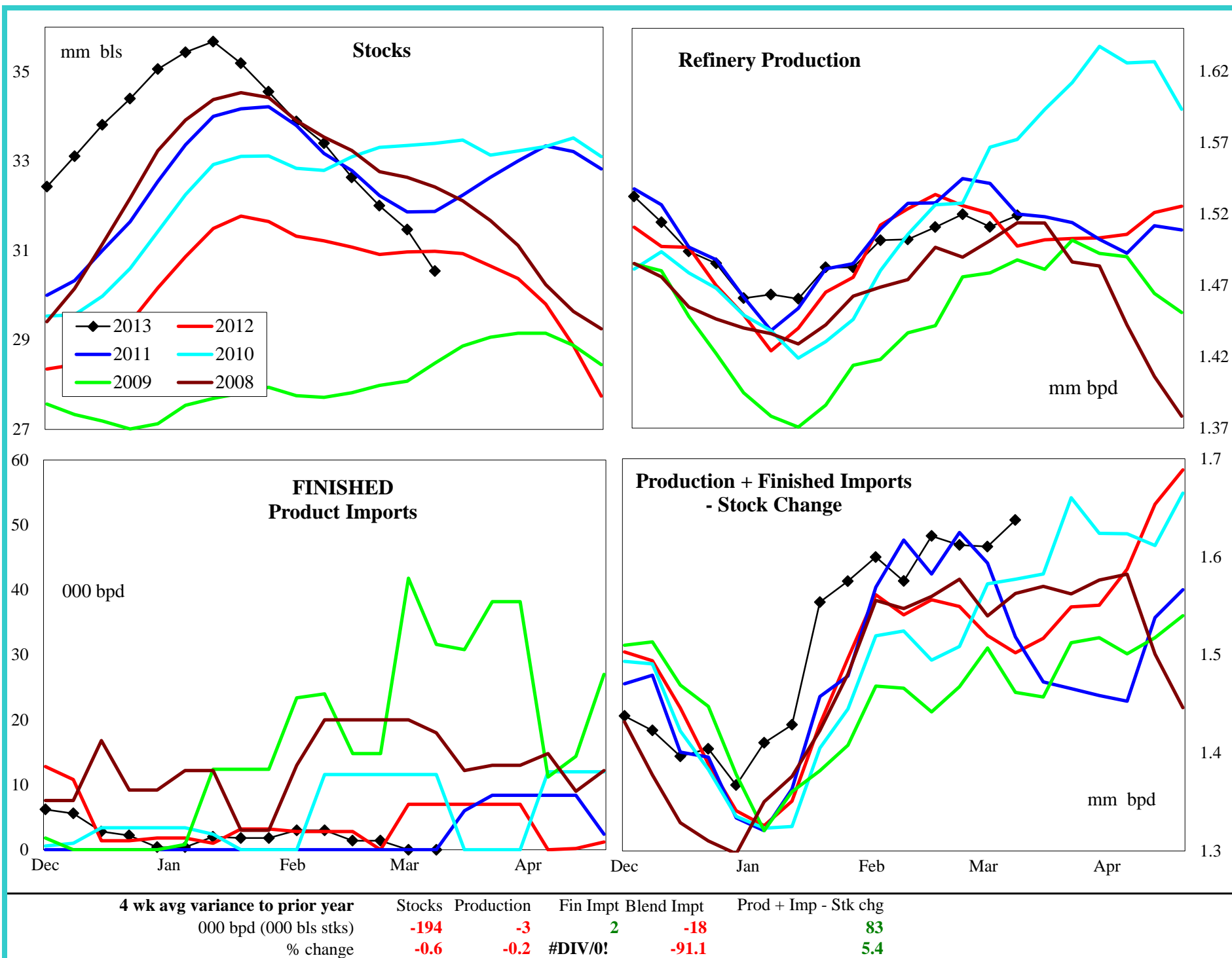
3.2

Imports

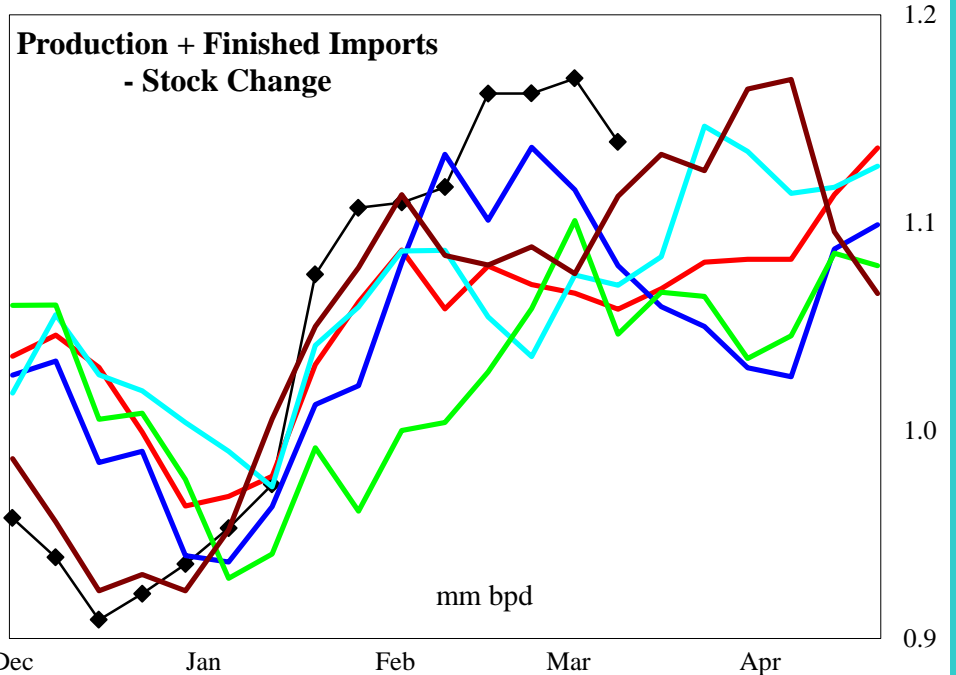
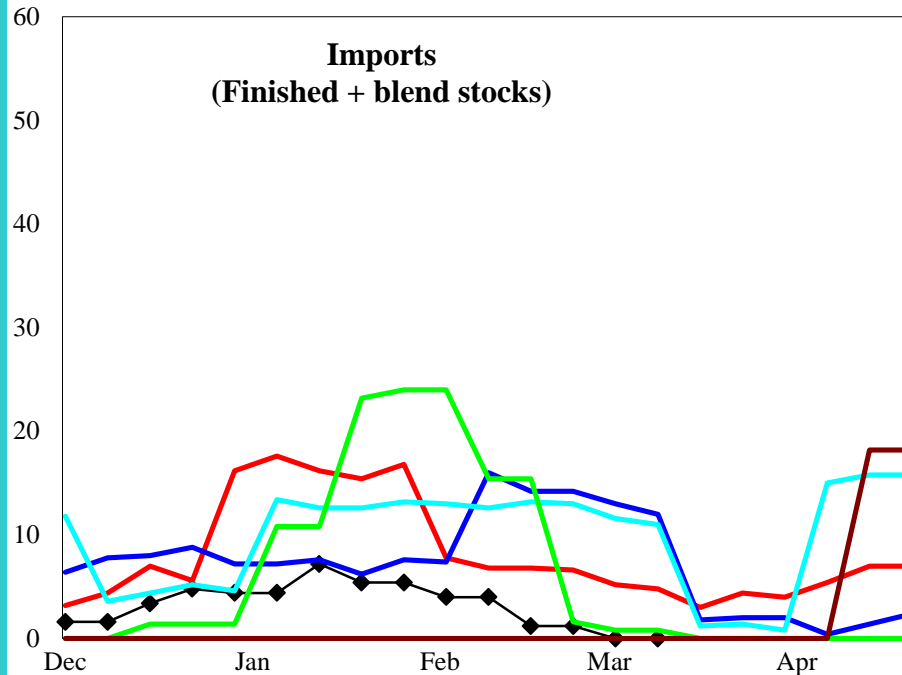
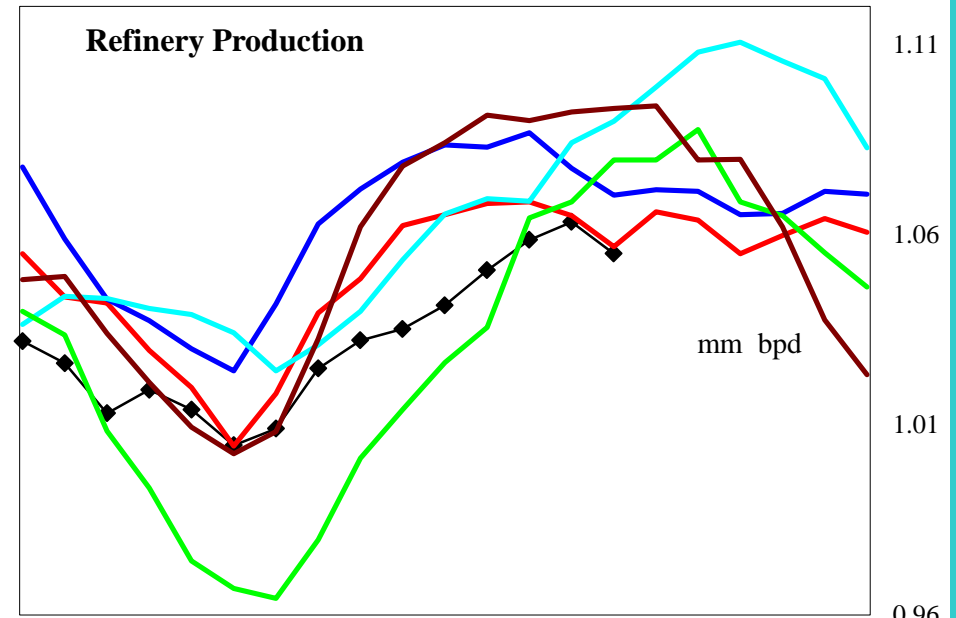
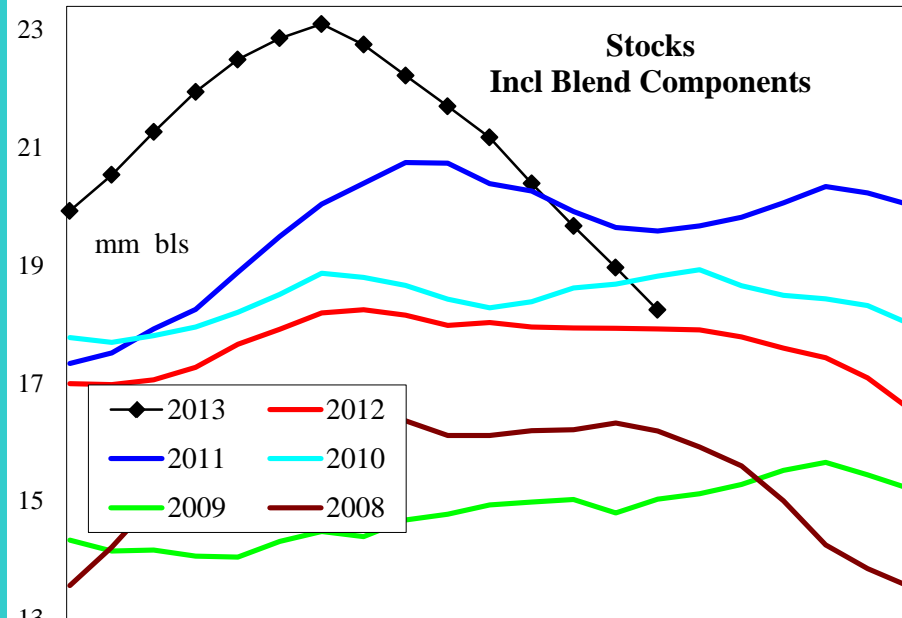
36

3.6

## PADD 5 Gasoline Supply



# PADD 5 Reformulated Gasoline Supply



4 wk avg variance to prior year

000 bpd (000 bls stks)

% change

Stocks

Production

Imports

Prod + Imp - Stk chg

269

-10

-7

97

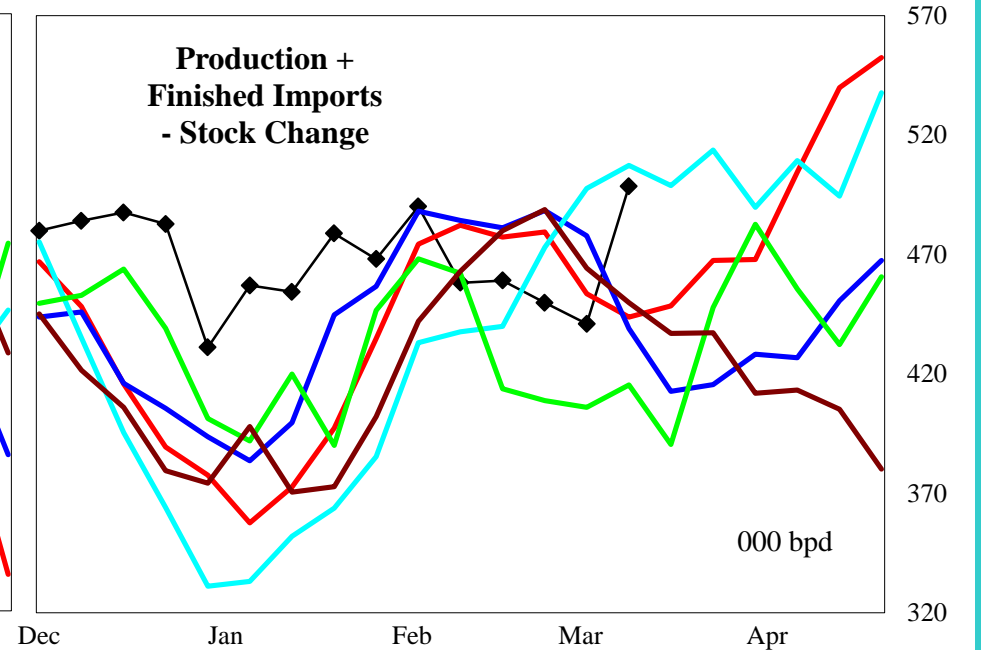
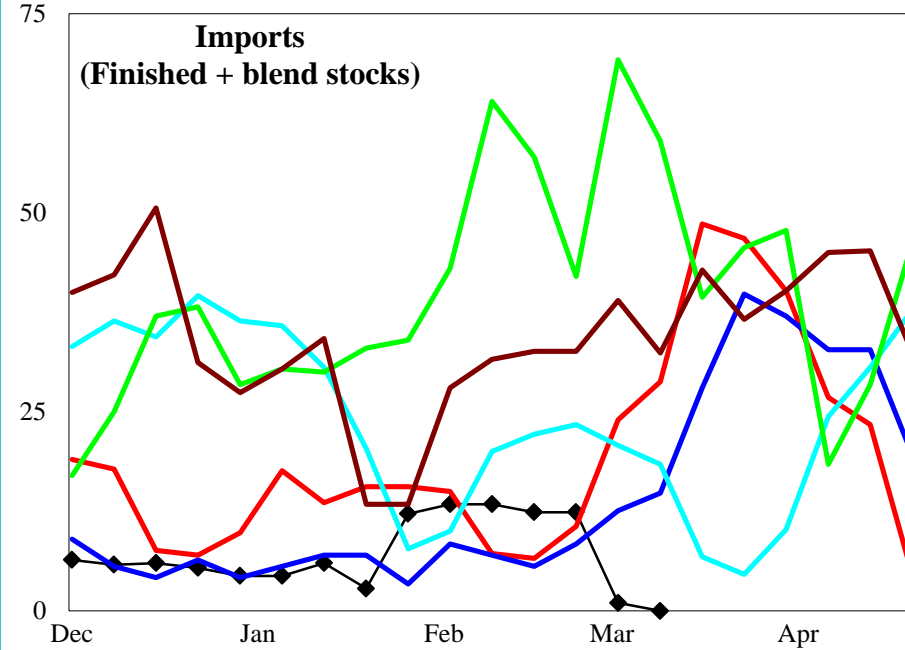
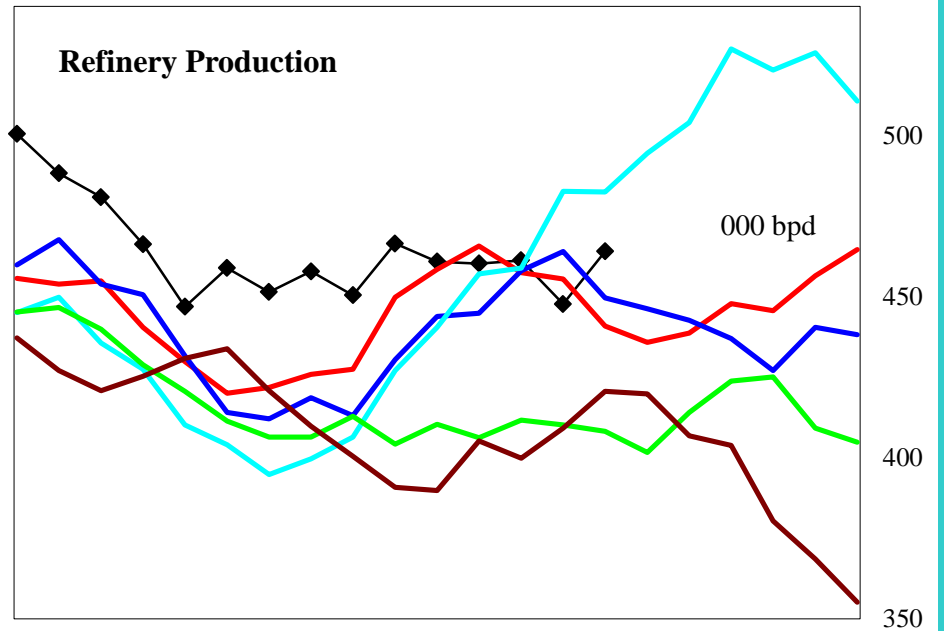
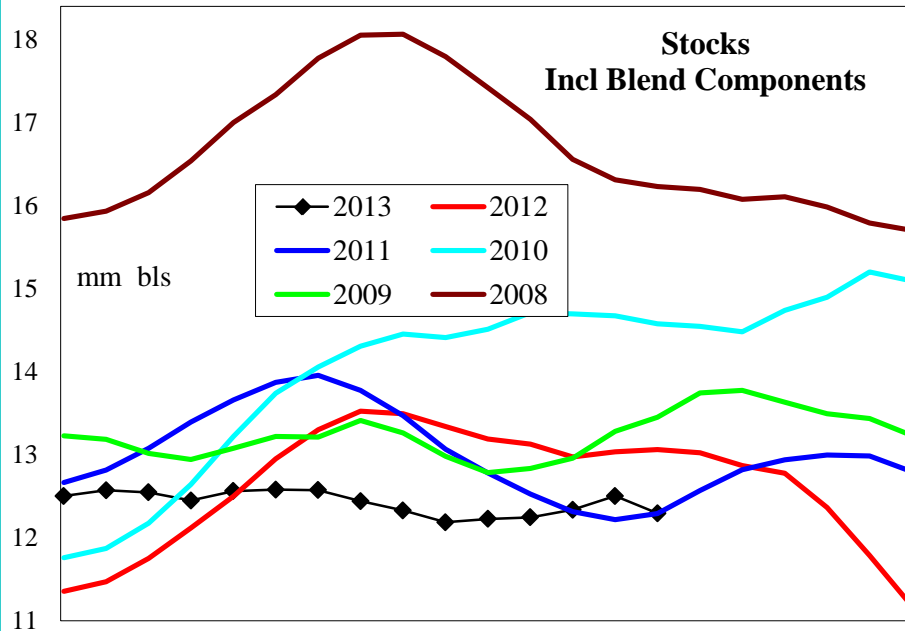
1.5

-0.9

-103.8

9.1

# PADD 5 Conventional Gasoline Supply



**4 wk avg variance to prior year**

000 bpd (000 bls stks)

% change

Stocks

Production

Imports

Prod + Imp - Stk chg

-463

7

-10

-14

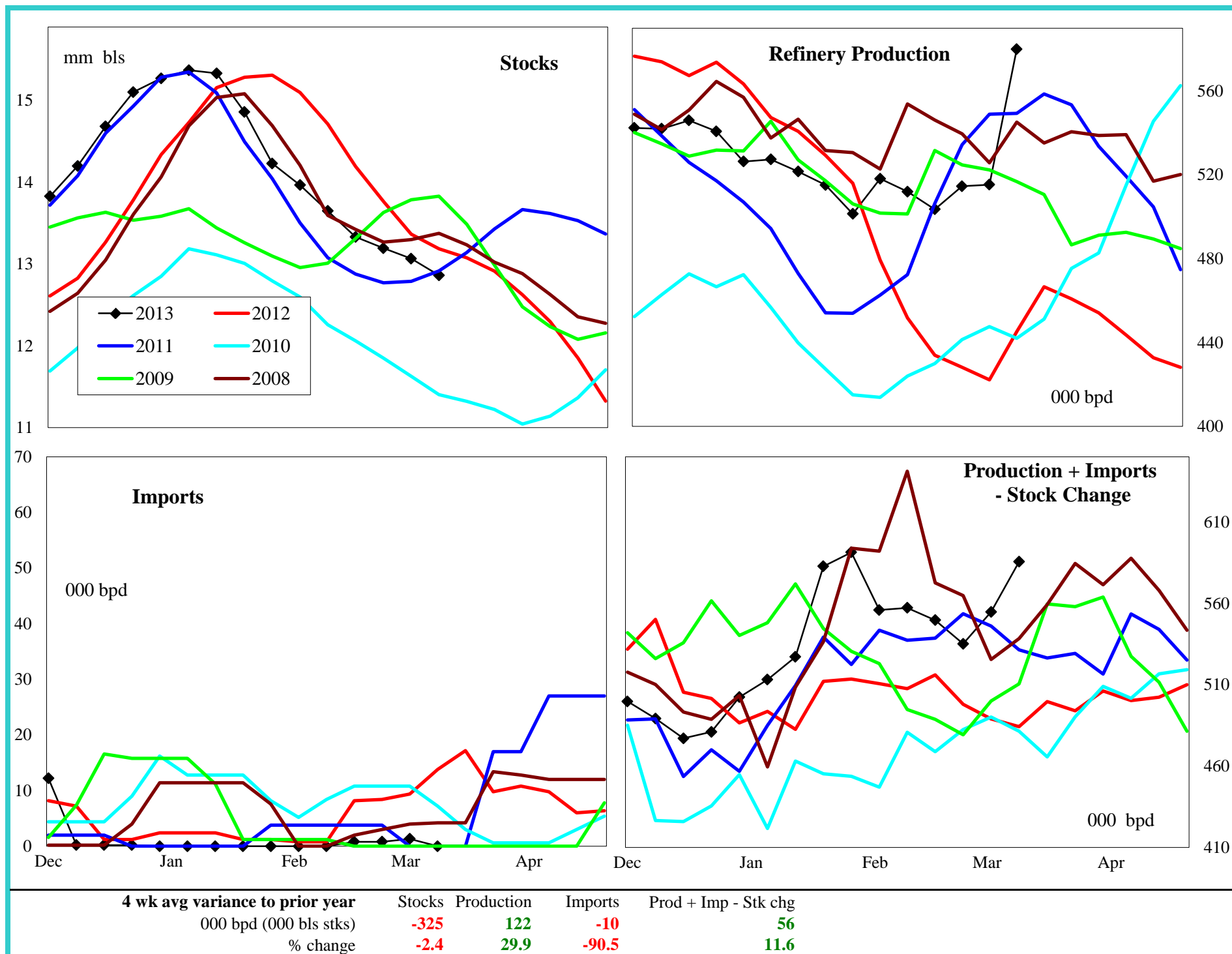
-3.6

1.5

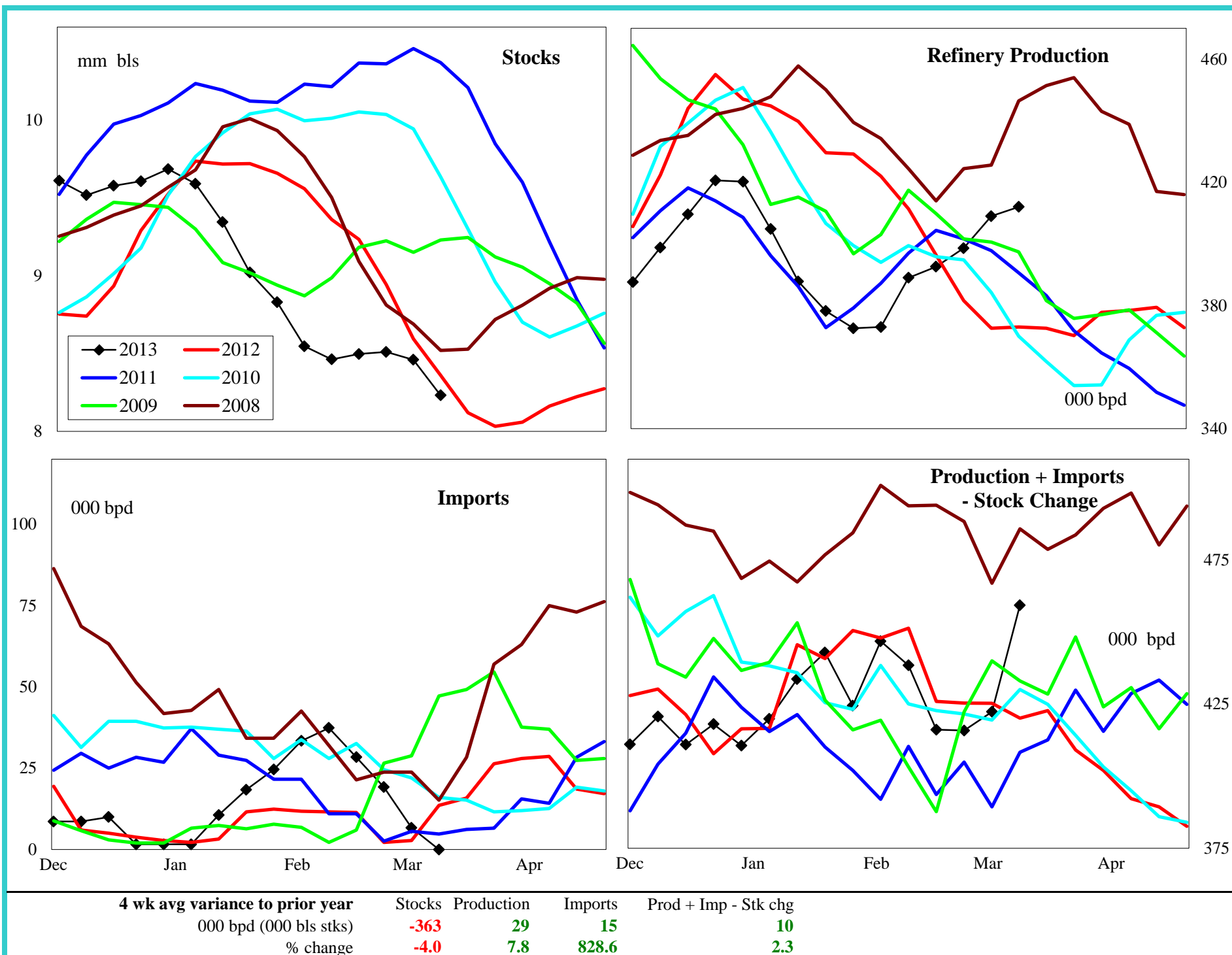
-71.7

-3.0

## PADD 5 Distillate Supply



## PADD 5 Jet Fuel Supply



## PADD 5 Residual Fuel Oil Supply

