



## WEEKLY PETROLEUM SUPPLY-DEMAND TRENDS

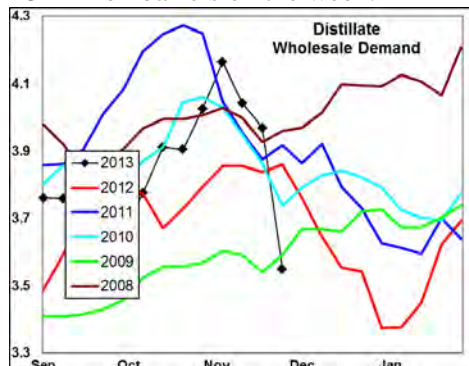
### A Fundamental Petroleum Trends Weekly Report

Lehi German Tel: 816.505.0980 [www.fundamentalpetroleumtrends.com](http://www.fundamentalpetroleumtrends.com) Wednesday, December 04,

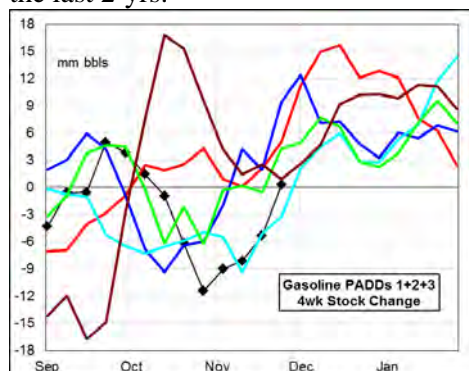


#### Major Fundamental Trends<sup>1</sup>

Middle distillate wholesale demand fell -750,000 bpd last week, which likely includes a pull back in exports for the week. As a result, stocks of middle distillates increased a combined +3 million barrels on the week.



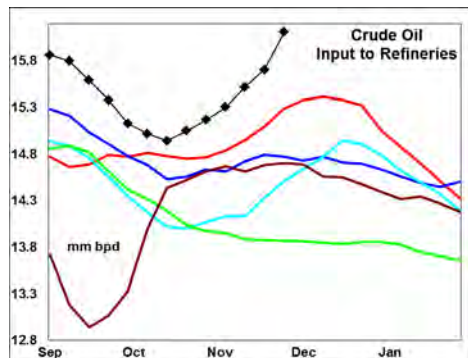
Gasoline stocks increased 1.8 million barrels last week as the East coast supply balance continued to improve. The latest 4-wk stock change in markets east of the Rockies was a build of +0.9 million barrels, compared to an average build of +6 million barrels for the last 2-yrs.



Look for significant stock building during the next 30-days on peak seasonal crude oil runs, above average imports and record crude oil runs.

Gulf refiners returned to operation last week, with a +0.5 million bpd increase in crude oil runs for the region. Refinery crude oil runs for the latest 4-wk period were above last year in all regional markets; rising a combined +0.6 million bpd.

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



Crude oil stocks were unchanged last week in Cushing, with the draw concentrated in the Gulf and West Coast. The surge in crude oil runs in the Gulf and lower imports on the West Coast account for the stock draw.

Startup of the Keystone south line from Cushing to the Gulf early next year risk moving the over supply of domestic crude oil from the midwest to the Gulf coast.

**Demand** for jet fuel plunged -0.3 million bpd last week, while distillate also fell -0.5 million bpd. Wholesale demand, measured over the last four weeks compared to a year ago: gasoline increased +3.3%; distillate was +0.1% higher; jet fuel was +8% higher, and residual decreased -34%.

**Stocks forward coverage:** Gasoline demand coverage increased on a +1.8 million barrel stock build, partially offset by robust demand. Coverage ended the week at a level equal to the 3-yr mid range.

Distillate coverage increased to a level near last year, on a +2.6 million barrel stock build and -0.5 million bpd drop in wholesale demand.

Jet fuel coverage increased on a +0.3 million barrel stock build and +-275,000 bpd drop in wholesale demand. Coverage levels remain well below the 5-yr range.

Residual fuel oil coverage increased on a -177,000 bpd drop in wholesale demand, with stocks unchanged.

**Refinery utilization** rates jumped on a +0.6 million bpd rise in crude oil runs.

During the latest 4-wk period crude oil input was +0.6 million bpd above a year ago.

Gasoline yield % on crude oil runs plunged on a -0.4 million bpd decrease in output compared to the +0.6 million bpd jump in crude oil runs. Yield % on crude oil runs ended the week at a record low level.

Distillate yield % on crude oil runs fell last week, on a +89,000 bpd rise in output compared to the surge in crude oil thru put. The yield % on crude oil runs was above four of the last 5-yrs.

Jet fuel yield % on crude oil runs increased on a +62,000 bpd increase in output, compared the surge in crude oil runs. The yield % level matched 5-yr highs.

**Petroleum Imports/Exports:** Imports of crude oil increased +91,000 bpd last week. Imports of jet fuel fell sharply last week while distillate increased and gasoline was nearly unchanged.

During the latest 4-wk period crude oil *imports* were -0.2 million bpd below last year; distillate imports were -31,000 bpd lower; finished gasoline imports decreased -15,000 bpd, gasoline blend stock imports were +37,000 bpd higher; jet fuel imports increased +42,000 bpd, while residual fuel oil imports were -91,000 bpd lower.

The latest weekly *export* estimate saw a +25,000 bpd increase in gasoline, a +368,000 bpd jump in distillate and +28,000 bpd rise in jet fuel compared to a year ago.

**Crude Oil** stocks fell -5.6 million barrels last week, driven by a +0.6 million bpd jump in crude oil refinery runs.

*Cushing stocks were unchanged on the week. Look for the oversupply of crude oil to move from Cushing to the Gulf during the next quarter as the Keystone South line is placed into service early next month (700,000 bpd capacity).*



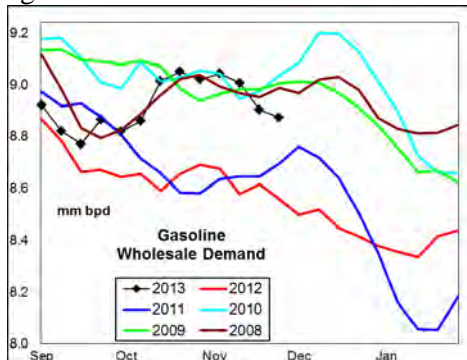
## WEEKLY PETROLEUM SUPPLY-DEMAND TRENDS

### A Fundamental Petroleum Trends Weekly Report

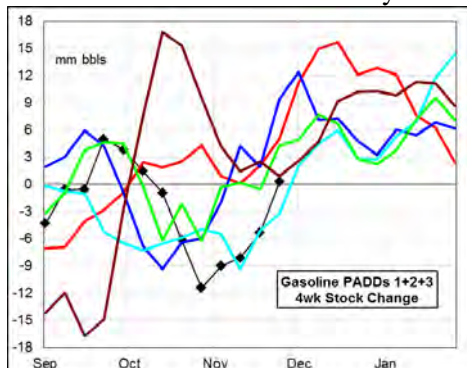
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#### Product Supply-Demand Trends

**Gasoline** wholesale demand decreased -36,000 bpd last week although the level remains well above the last 2-yrs. The latest 4-wk average demand was +288,000 bpd above a year ago. Supply fell -452,000 bpd on a drop in production. Supply for the latest 4-wk period was +205,000 bpd above a year ago.



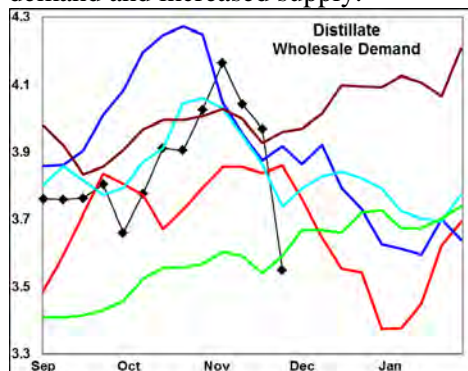
Stocks increased +1.8 million barrels last week, to a level comparable with the last 4-yr average. The latest 4-wk stock change in markets East of the Rockies was a +0.9 million barrel build, compared to an average build of +6 million barrels for the last 2-yrs.



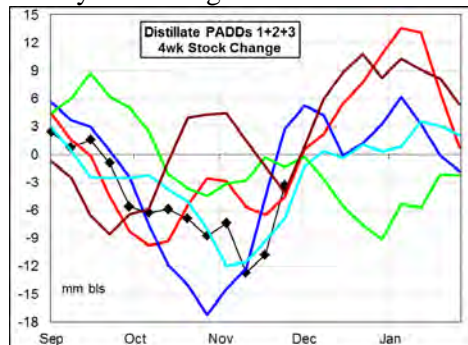
Look for a near term rebound in production following the +0.5 million bpd rise in crude oil runs last week. Combined with lower seasonal demand, stocks should witness meaningful builds during the next 60-days. Regional markets outside of the Northeast should continue to experience over supply.

**Distillate** wholesale demand fell -0.5 million bpd last week to a level below the 5-yr range. The latest 4-wk average demand was +2,000 bpd above last year. Supply increased +142,000

bpd last week on higher imports and production. The latest 4-wk average supply was +304,000 bpd above last year. Stocks increased +2.6 million barrels on the week, on the drop in demand and increased supply.



The latest 4-wk stock change in markets East of the Rockies was a -4.1 million barrel draw, a draw equal to the 3-yr mid range.



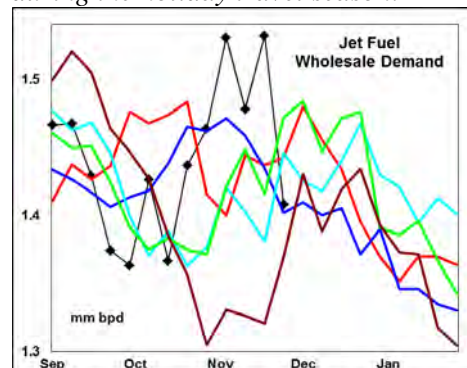
Look for production to remain at a record high level and seasonal peak for the next month. Combined with lower seasonal demand, stocks should continue to build for the next month. A record rate of exports will limit stock building in the key East and Gulf regional markets.

**Jet Fuel** wholesale demand plunged -275,000 bpd last week to a level near 5-yr lows for the period. The latest 4-wk average demand was +115,000 bpd above a year ago.

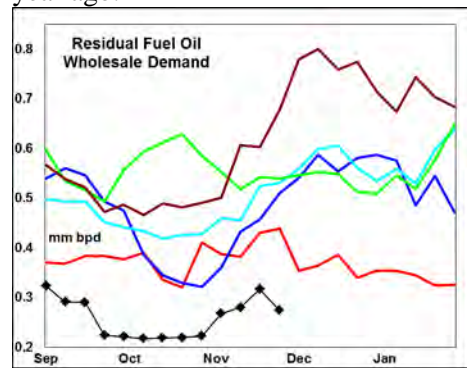
Supplies decreased -43,000 bpd on the week, the result of a collapse in imports. Production reached an all-time high for the winter quarter. Supply for the latest 4-wk period was +166,000 bpd above a year ago. Stocks increased +0.3 million barrels last week, to a level -10% below a year

ago.

A record level of production and seasonal pull back in demand should lead to some modest improvement in stock levels. However, risk of a widespread supply squeeze exists during the holiday travel season.



**Residual fuel oil** demand fell -177,000 bpd last week. Demand for the latest 4-wk period was -123,000 bpd below a year ago.



Supply (production + imports) decreased -42,000 bpd on lower imports. Production was -4% below a year ago for the latest 4-wk period. Stock levels ended the week -10% below last year and below the historic range.

Production in the Gulf region was -56,000 bpd (-22%) below a year ago for the most recent 4-wks. Imports were unchanged from last year. The collapse in residual fuel oil supplies, has led to a -2 million barrel draw in the key gulf region, with the level now below the last 3-yrs.





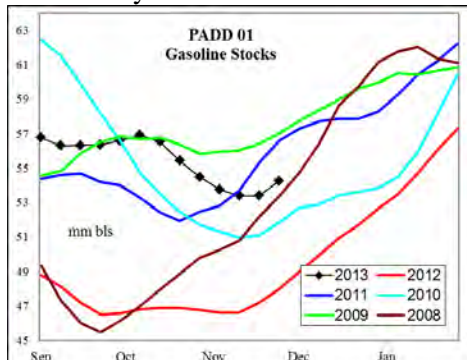
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#### PADD Supply Trends

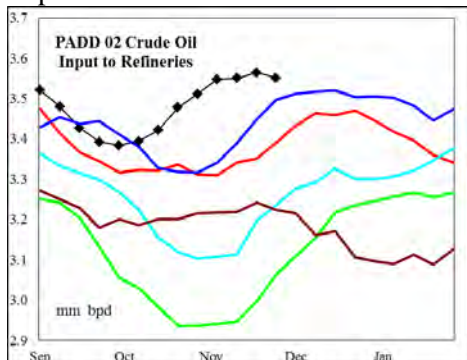
**PADD 1** refinery crude oil runs increased +15,000 bpd last week; with the latest 4-wk average +92,000 bpd above last year.



Gasoline supply decreased -16,000 bpd on the week, with the level slightly above the last 3-yrs. Stocks increased +0.8 million barrels, a level above the latest 3-yr mid range.

Distillate supply jumped +131,000 bpd last week, on higher production and imports. Stocks increased +1.5 million barrels on the week, to a level near year ago lows.

Jet fuel stocks ended the week at a level below the 5-yr range on a drop in imports.



**PADD 2** crude oil refinery runs declined -69,000 bpd last week, with the latest 4-wk average +217,000 bpd above last year. Crude oil stocks decreased -0.8 million barrels last week. Stocks were unchanged in Cushing OK.

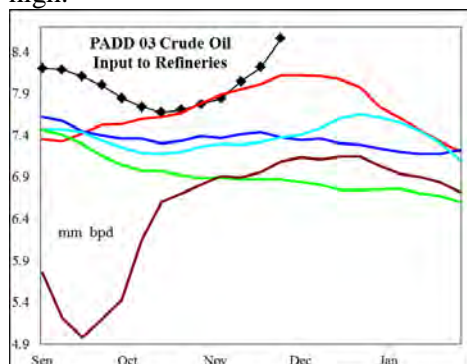
Gasoline production increased +21,000 bpd last week with the level well above the historic range. Production for the most recent 4-wk period was +354,000 bpd above a year

ago. Stocks increased +0.1 million barrels on the week, to a level near the 3-yr mid range.

Distillate supply declined -17,000 bpd last week, with the 4-wk average +108,000 bpd above last year. Stocks increased +0.8 million barrels to match last year's lows.

Jet fuel production decreased -31,000 bpd to a level below the 3-yr mid range. Stock levels ended the week -15% below a year ago and well below the 5-yr range.

**PADD 3** refinery runs jumped +0.5 million bpd last week to a record high level. During the latest 4-wk period, average runs were +160,000 bpd above last year. Crude oil stocks decreased -2.8 million barrels last week, +12.7 million barrels above the prior record high.



Gasoline supply was unchanged last week, with the latest 4-wk average -59,000 bpd below a year ago. Stocks increased +0.1 million barrels last week.

Distillate supply increased +90,000 bpd on the week, with the latest 4-wk average supply +185,000 bpd above last year. Stocks increased +0.3 million barrels last week, to a level +7% above last year.

Jet fuel production increased +25,000 bpd on the week, with the level above the 5-yr range. Stocks increased +0.5 million barrels on the week to a level -7% below a year ago.

Residual fuel supply decreased -31,000 bpd on lower imports. Stocks were unchanged on the week at a level below the each of the last 3-yrs.

**PADD 4** refinery crude runs increased

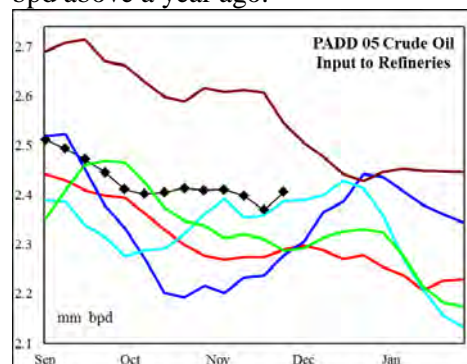
+14,000 bpd last week, to a level above the historic range. Crude oil stock levels were +11% above the previous record high, while imports were near the 3-yr mid range.

Gasoline production decreased -13,000 bpd on the week, to a level +45,000 bpd above last year. Stocks levels were above the historic range.

Distillate production decreased -3,000 bpd on the week, to a level -8% below the last 2-yrs. Stocks increased +0.1 million barrels to a level near historic highs.

Jet fuel production and stock levels each were below the 3-yr mid range.

**PADD 5** crude oil refinery runs increased +57,000 bpd last week to a level equal to 3-yr highs for the period. The latest 4-wk run rate was +105,000 bpd above a year ago.



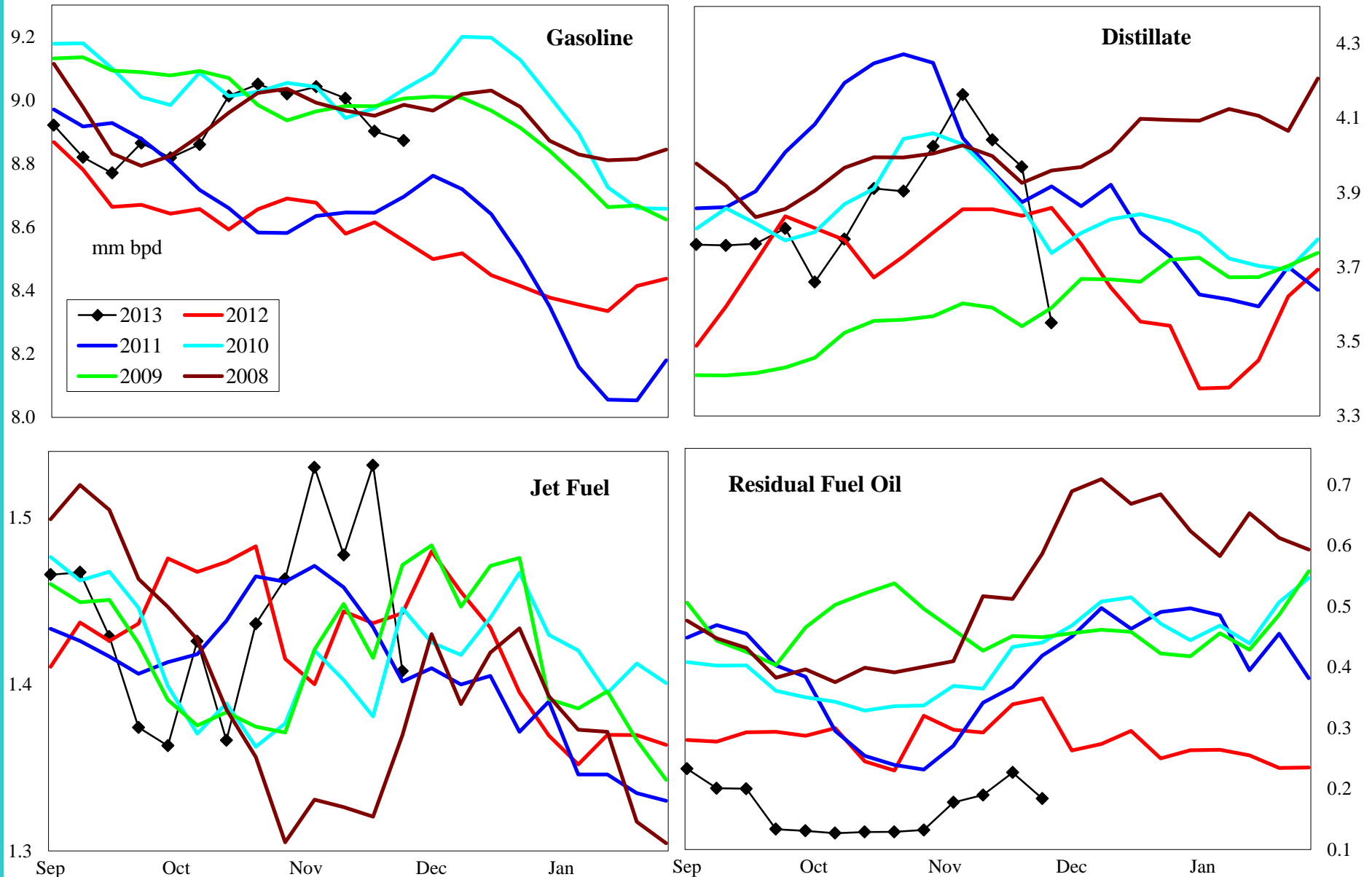
Gasoline supply declined -34,000 bpd on the week with production at record highs for this time of year. The latest 4-wk average supply was +86,000 bpd above a year ago. Stocks increased +0.9 million barrels last week, to a level above the 3-yr mid range.

Distillate supply fell -59,000 bpd, to a level above the 3-yr mid range. The latest 4-wk average supply was +36,000 bpd above last year. Stocks decreased -0.1 million barrels last week, to a level at the low end of the historic range.

Jet fuel supply declined -19,000 bpd last week, on a sharp drop in imports. Production climbed to a record high for this time of year. Stocks were unchanged on the week at a level below the 5-yr range.



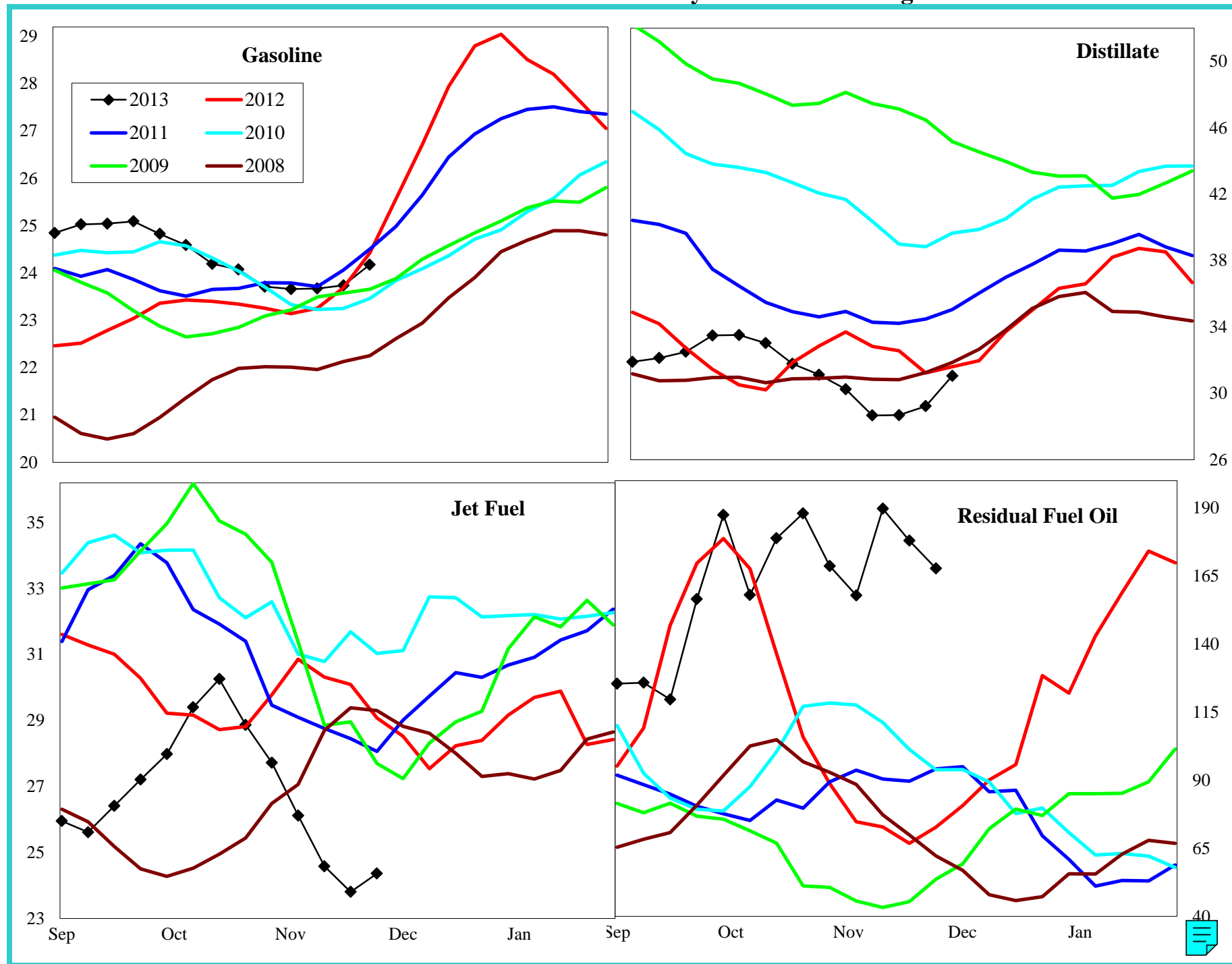
# United States Wholesale Petroleum Demand



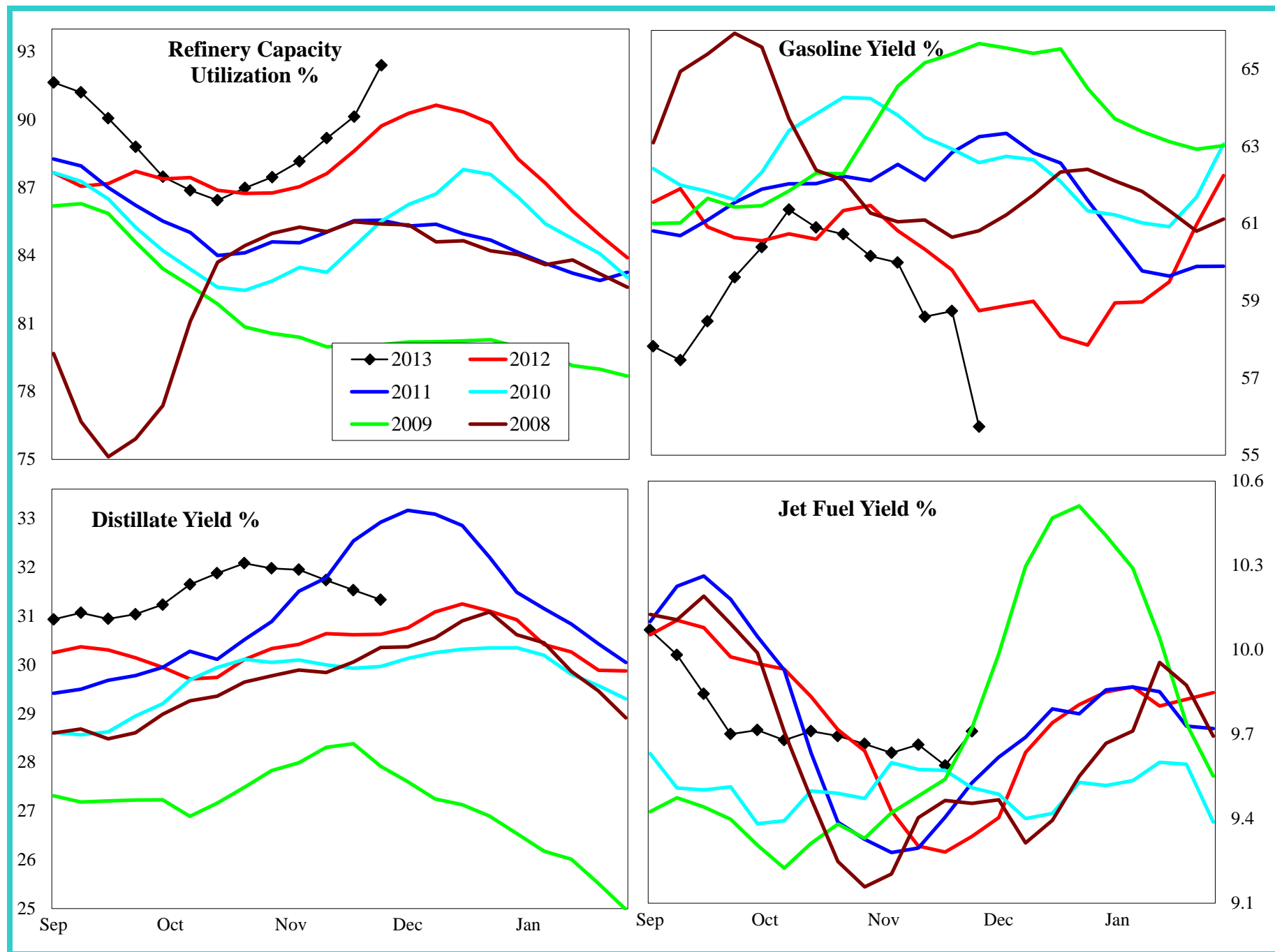
	000 bpd change from prior year				% change from prior year			
	4wk avg	Oct	Sep	Jan	4wk avg	Oct	Sep	Aug
Gasoline	288	355	237	-47	3.3	4.1	2.8	-0.5
Distillate	2	94	141	-13	0.1	2.4	3.8	-0.3
Jet Fuel	115	64	-3	56	8.1	4.8	-0.2	3.8
Resid	-123	-109	-125	50	-33.8	-39.1	-41.4	14.2



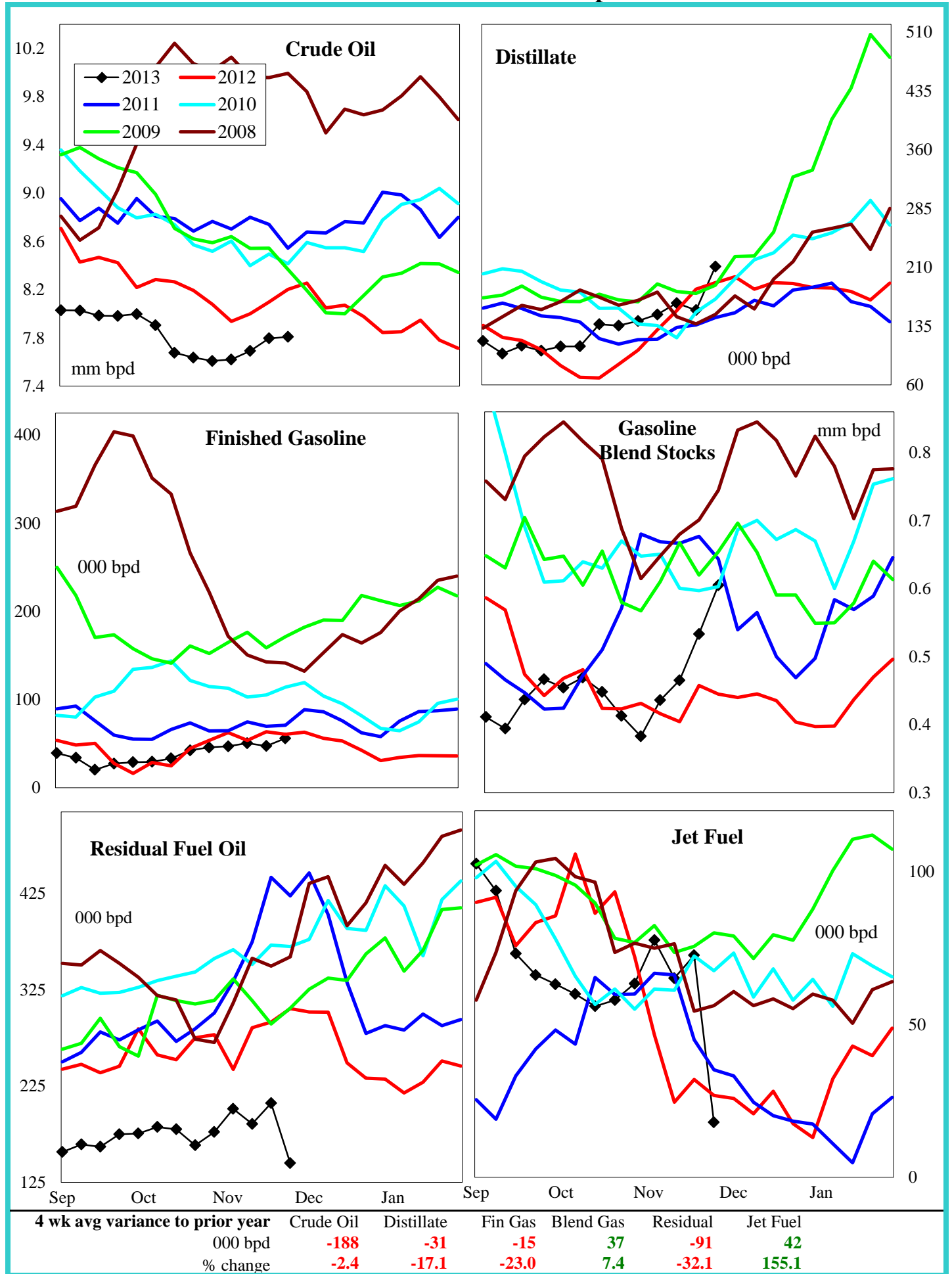
# United States Product Stocks: Days Forward Coverage



## United States Refinery Percent Utilization Rate and Product Yields

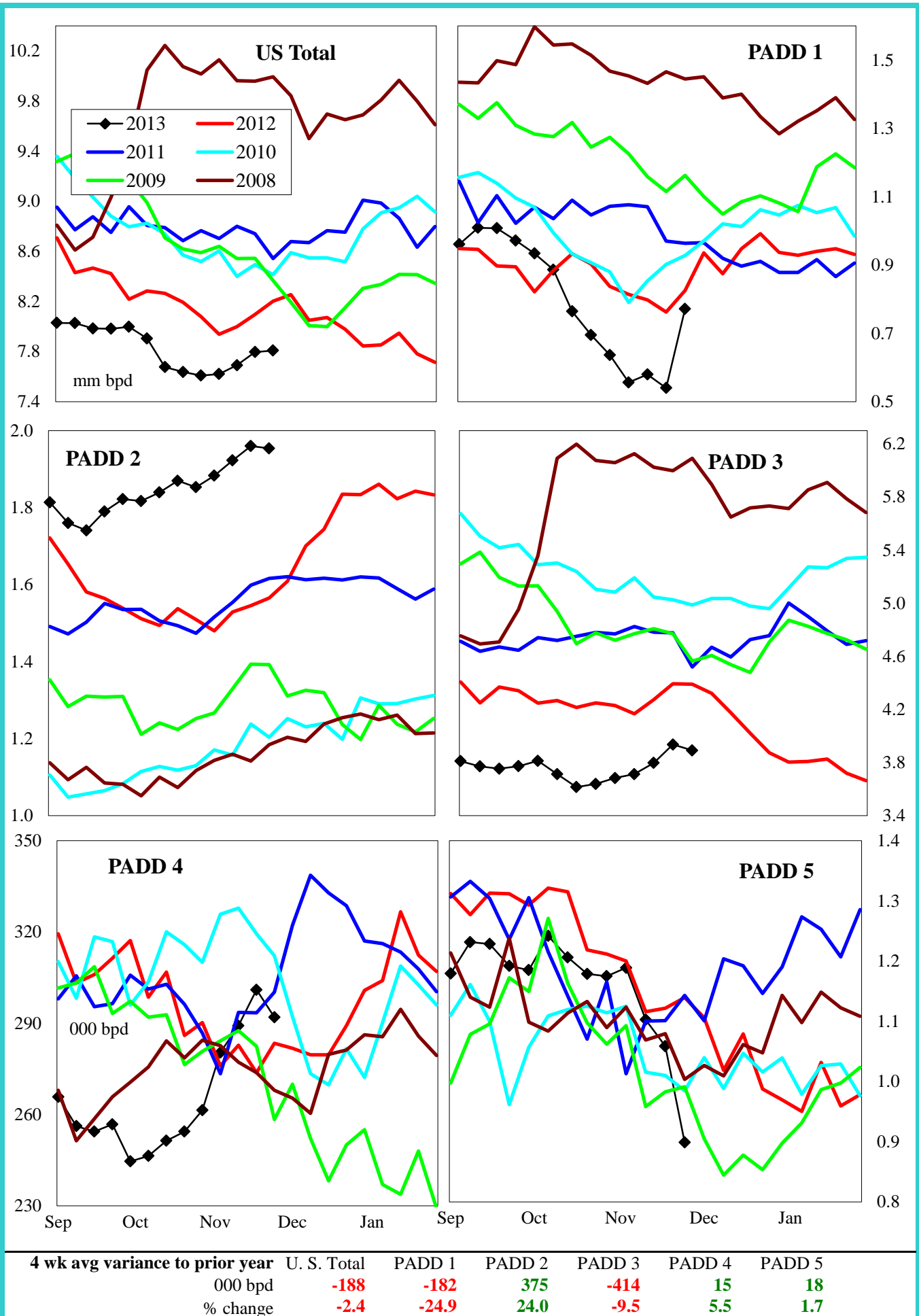


# United States Petroleum Imports

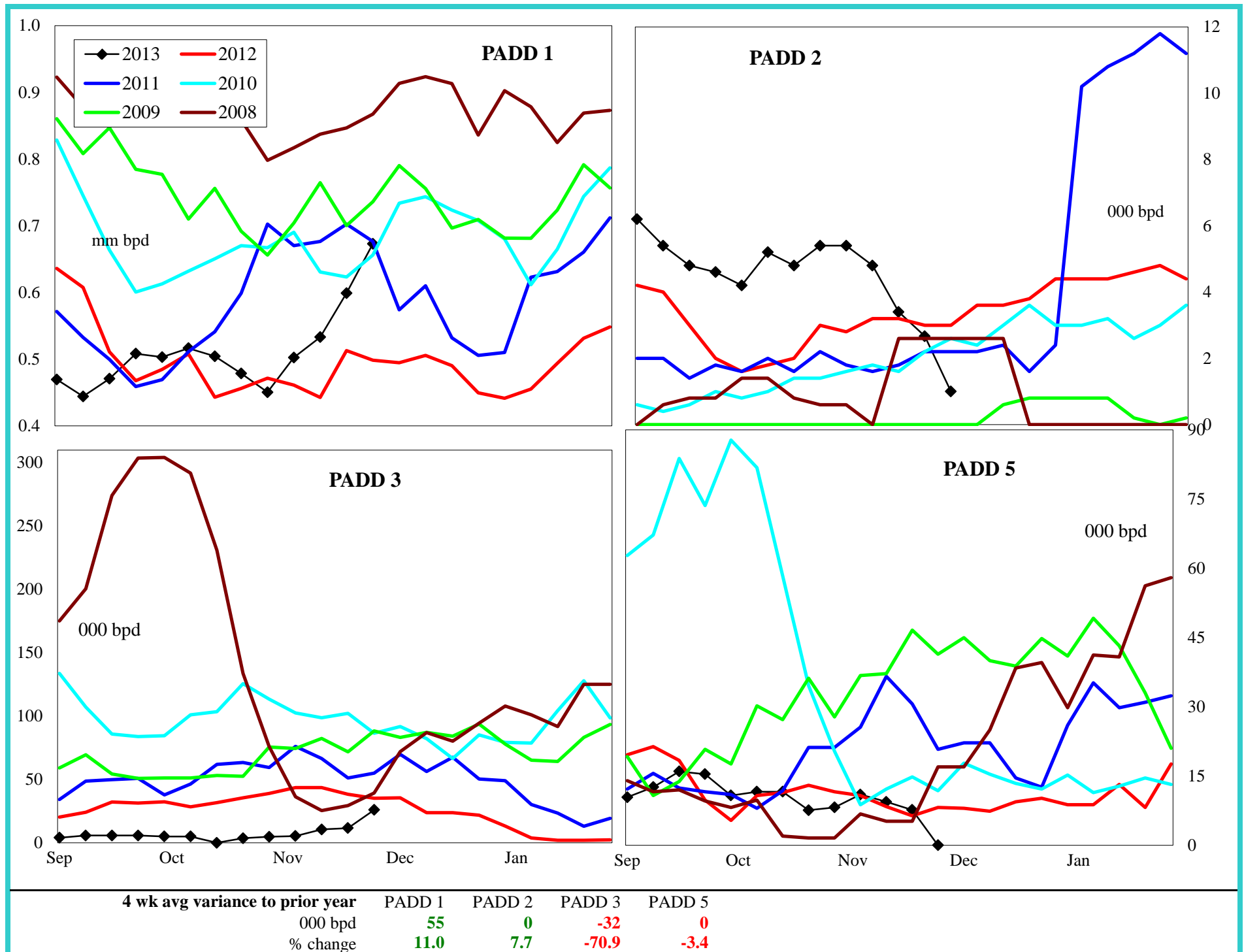




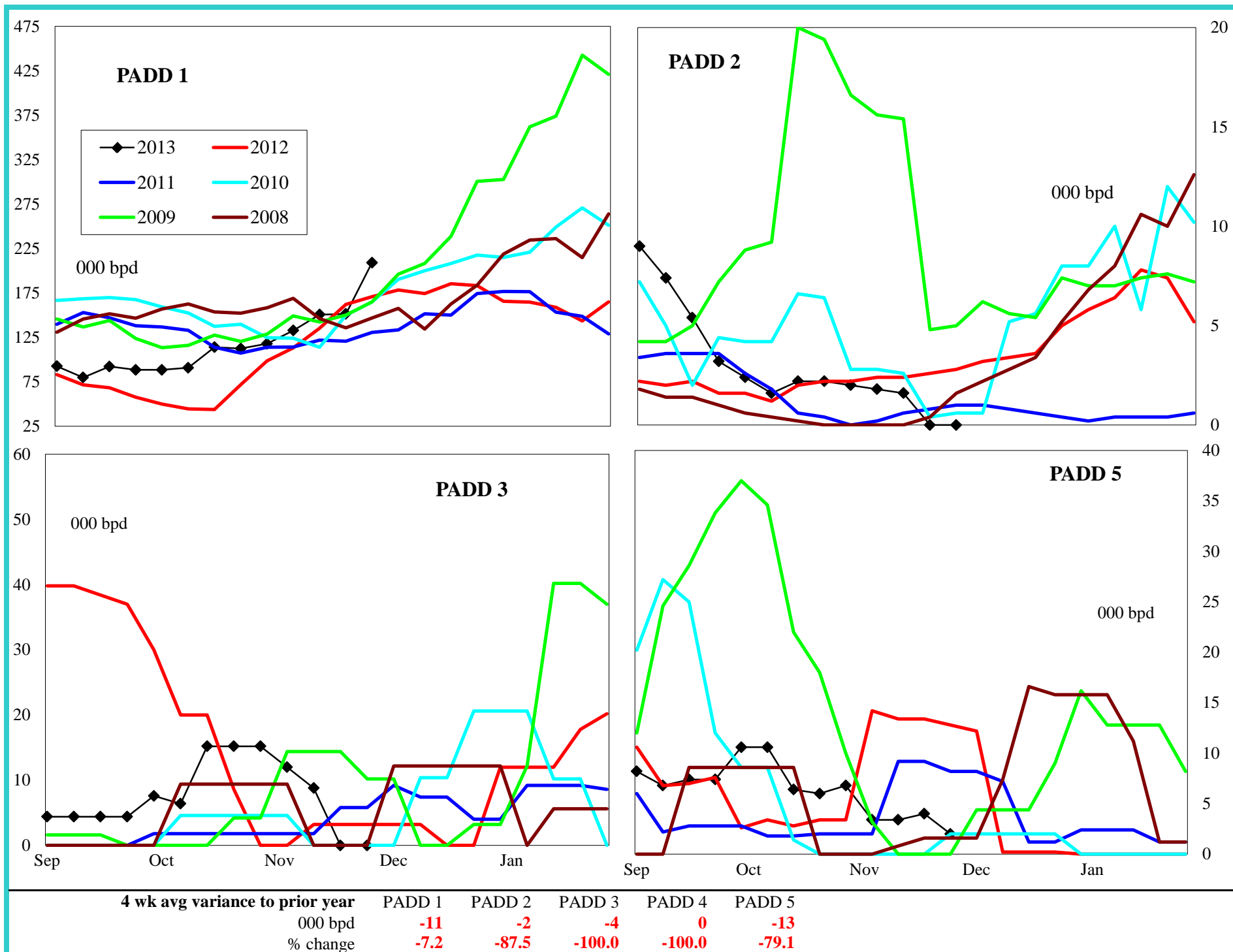
## Crude Oil Imports by PADD



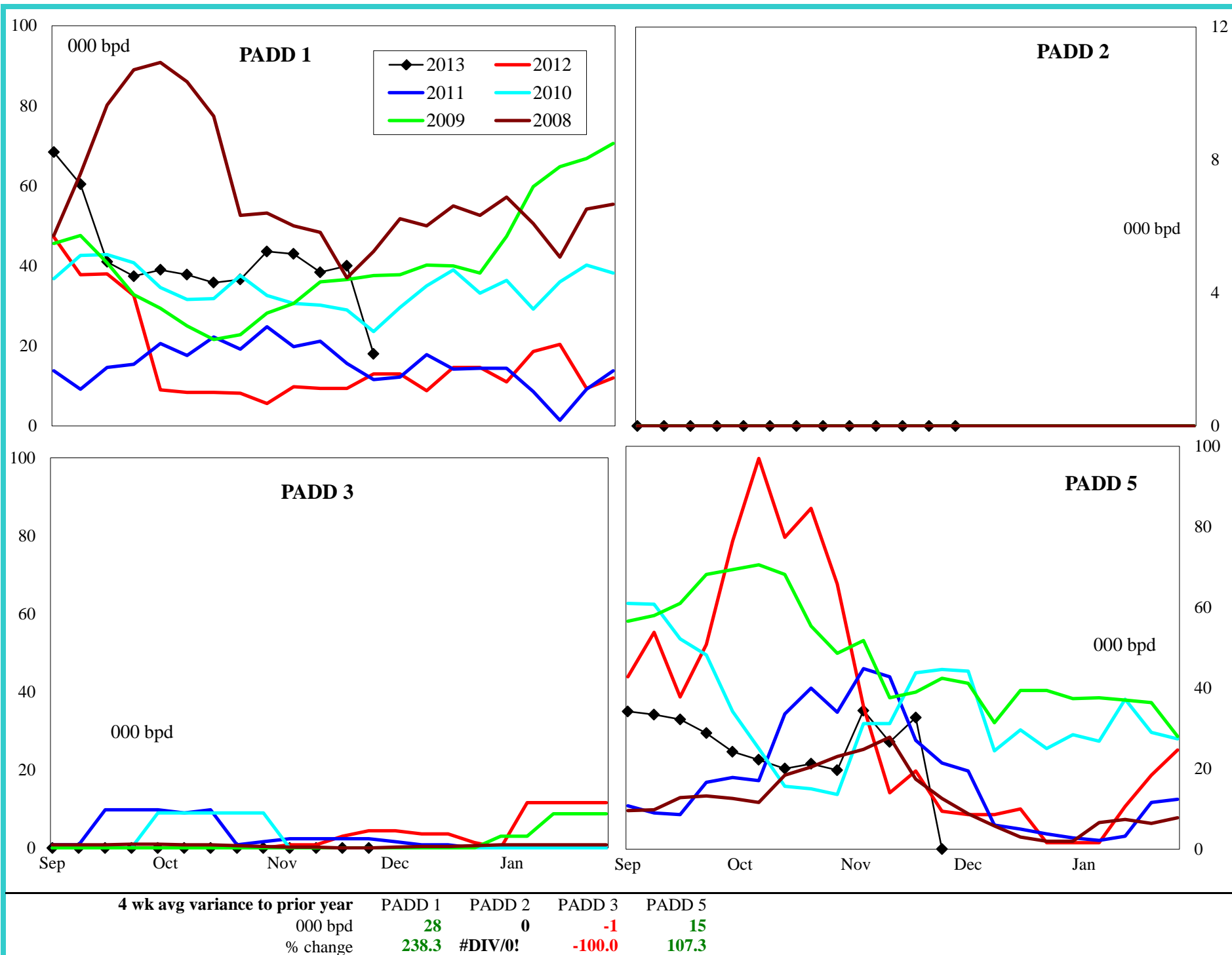
# Gasoline Imports by PADD (Finished + Blend Stocks)



# Distillate Imports by PADD

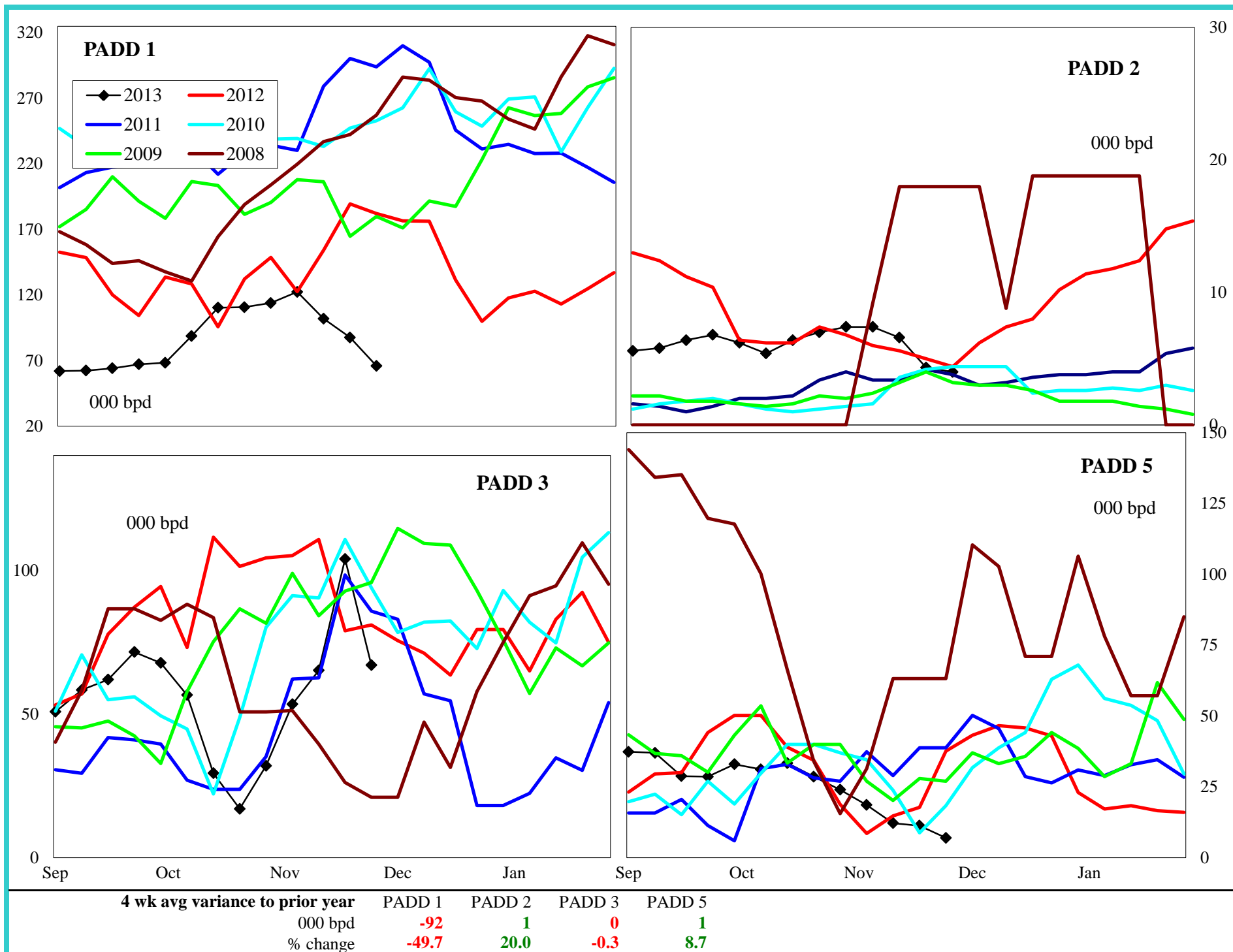


# Jet Fuel Imports by PADD

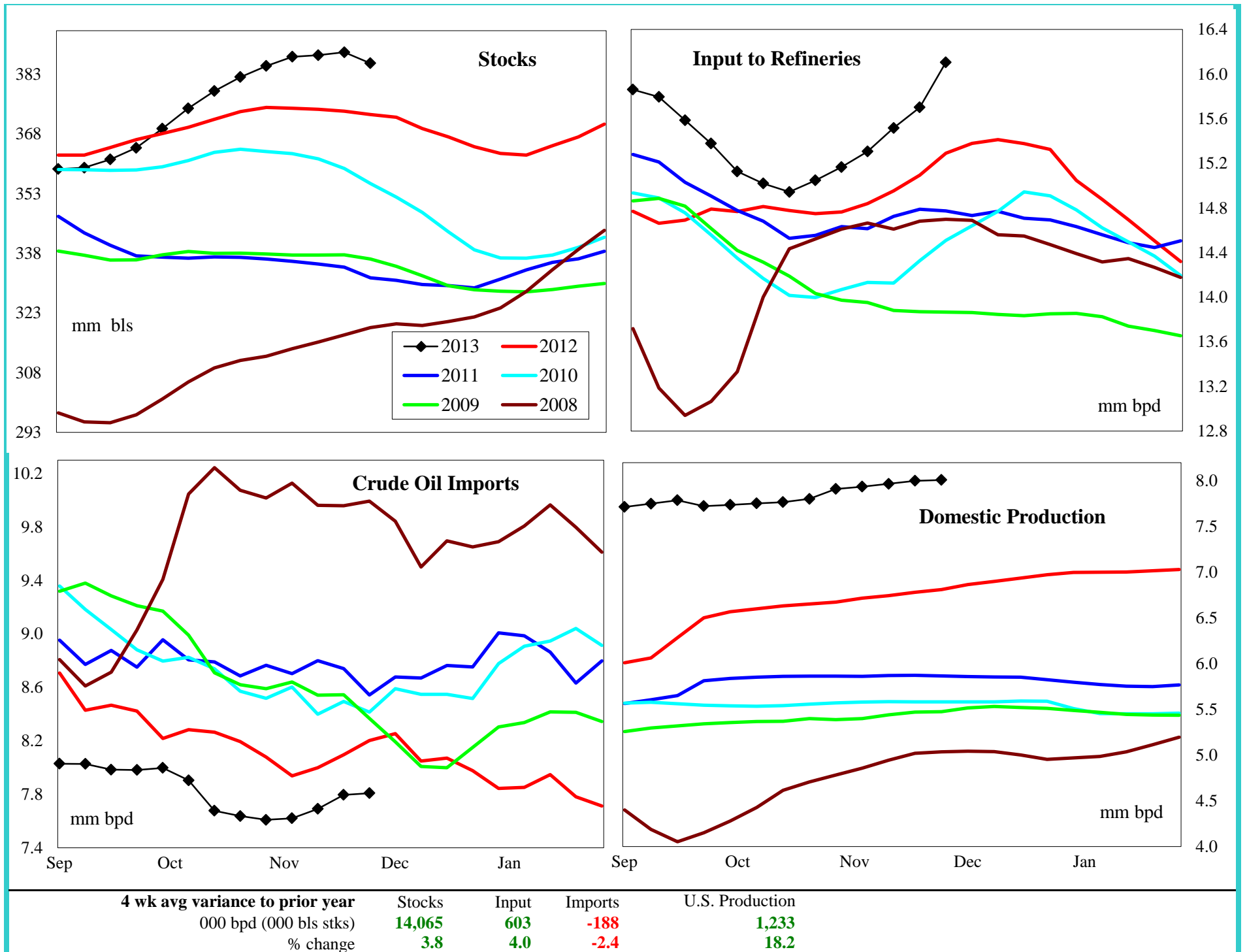




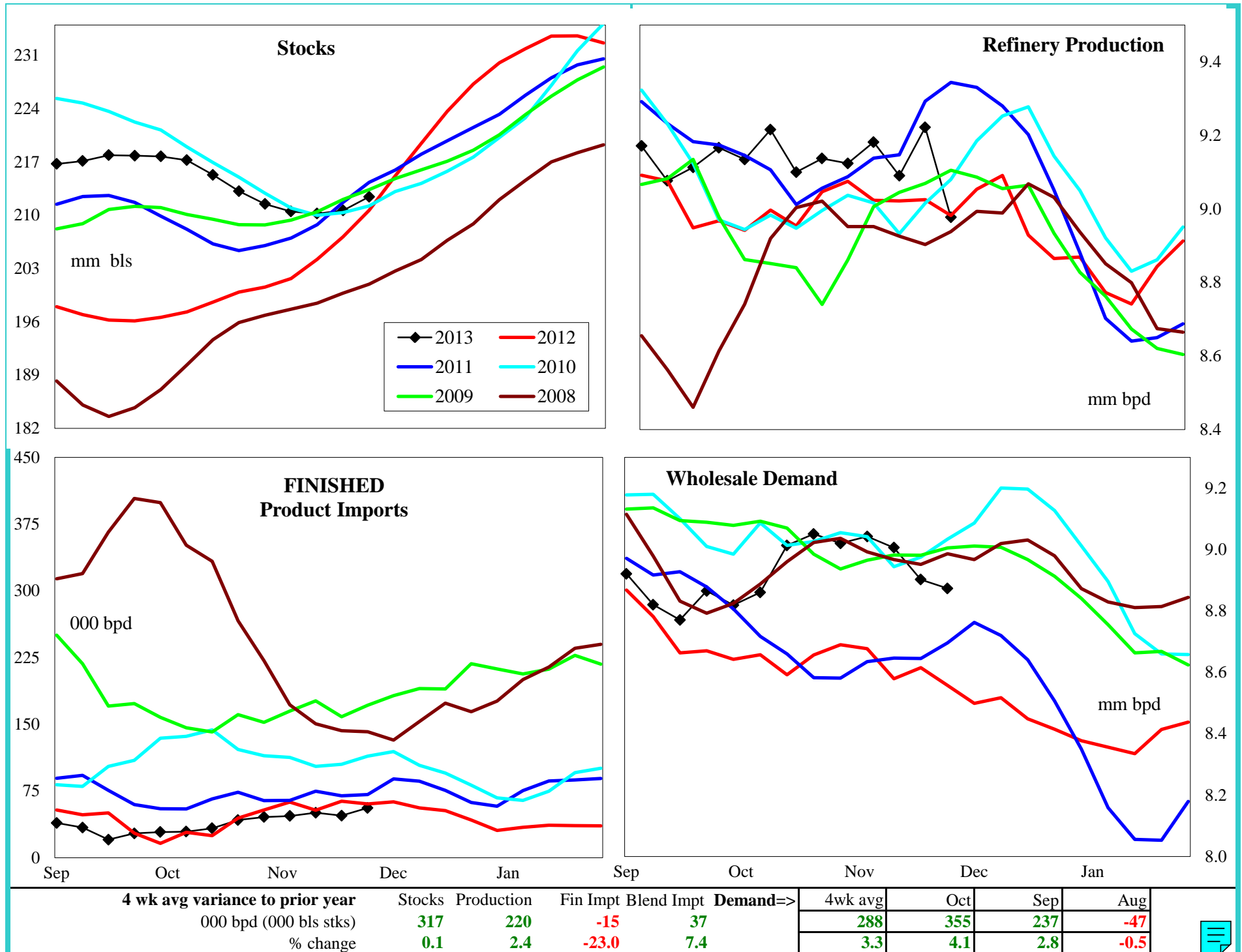
## Residual Fuel Oil Imports by PADD



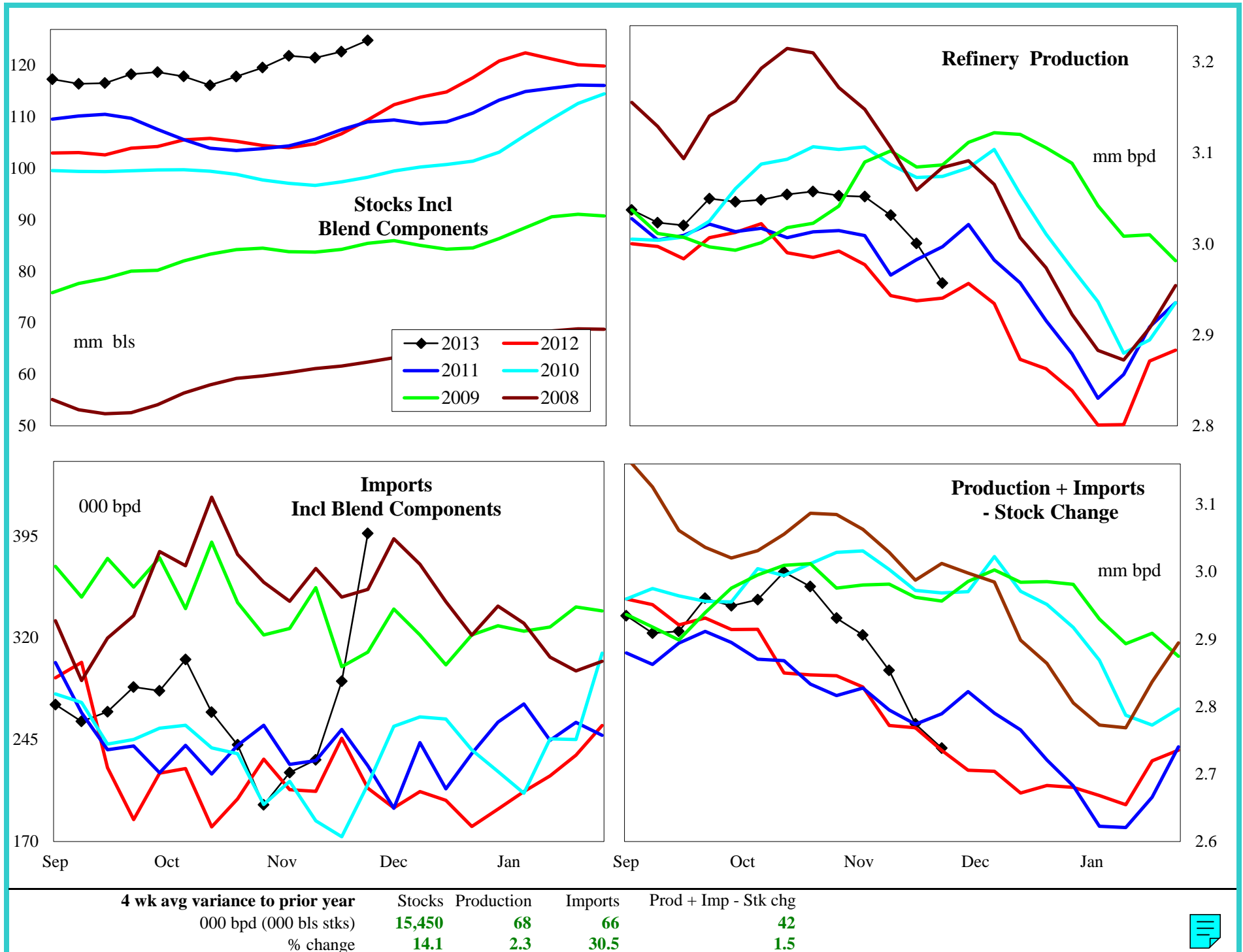
# United States Crude Oil Supply and Demand Balance



# United States Gasoline Supply and Demand Balance

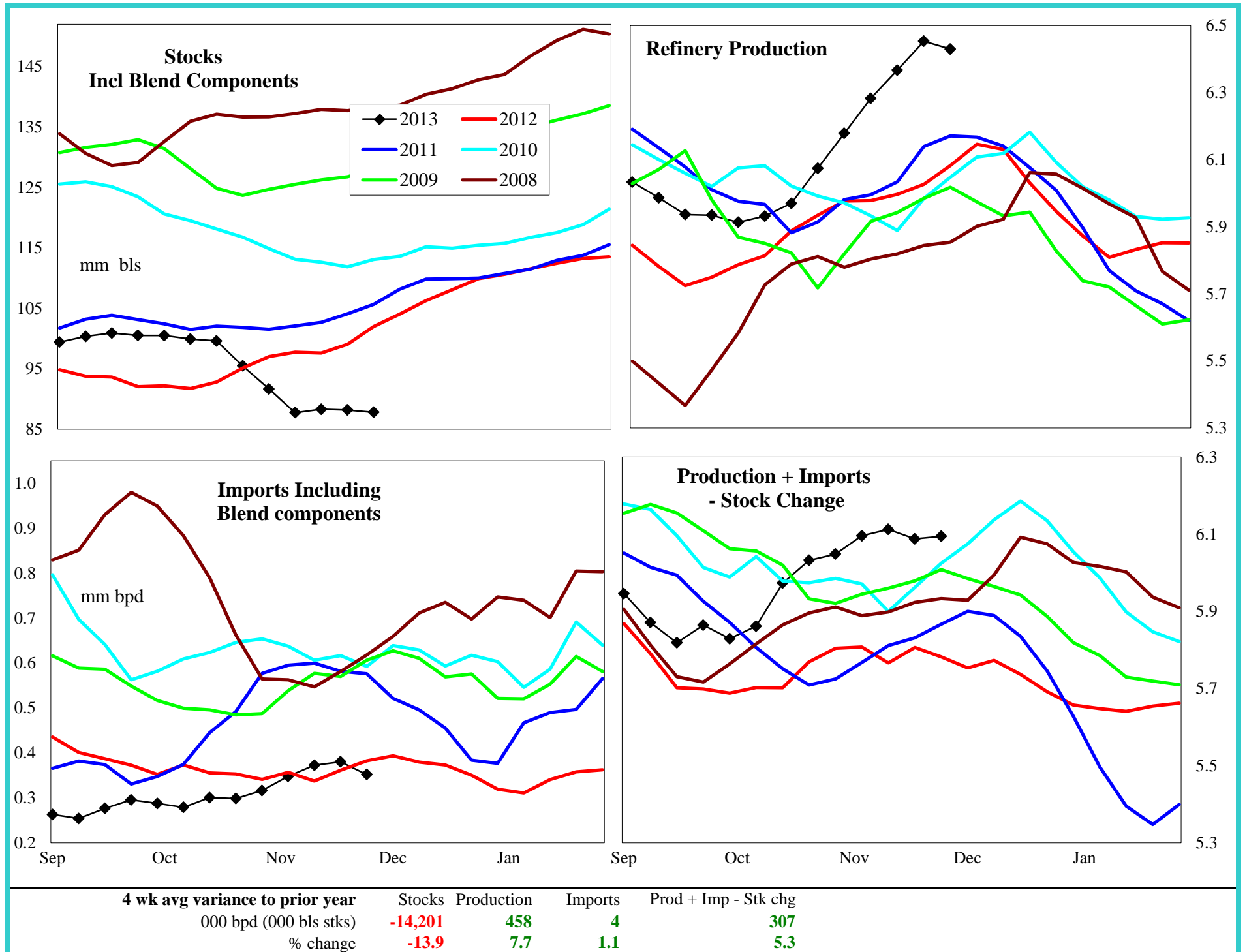


# United States Reformulated Gasoline Supply

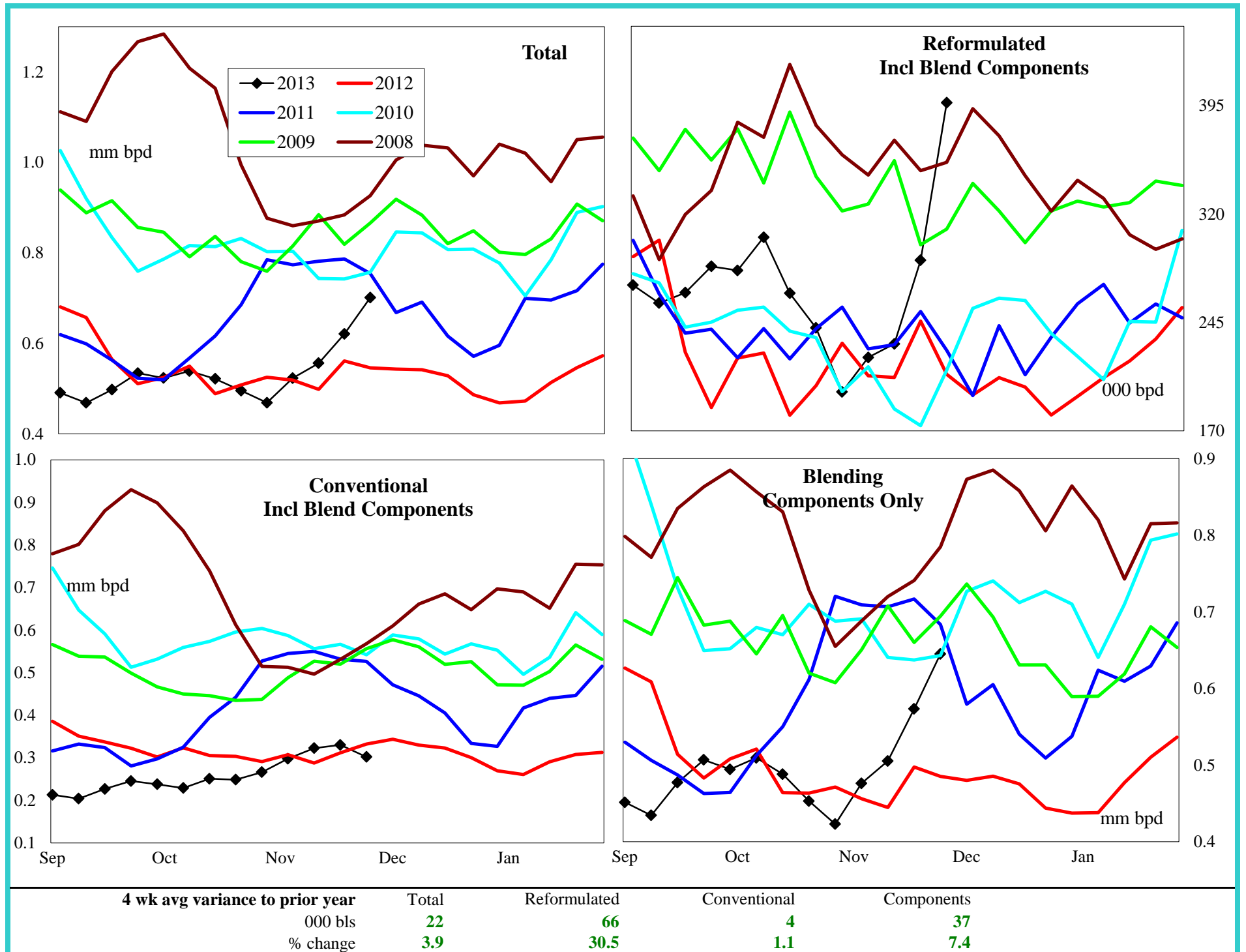




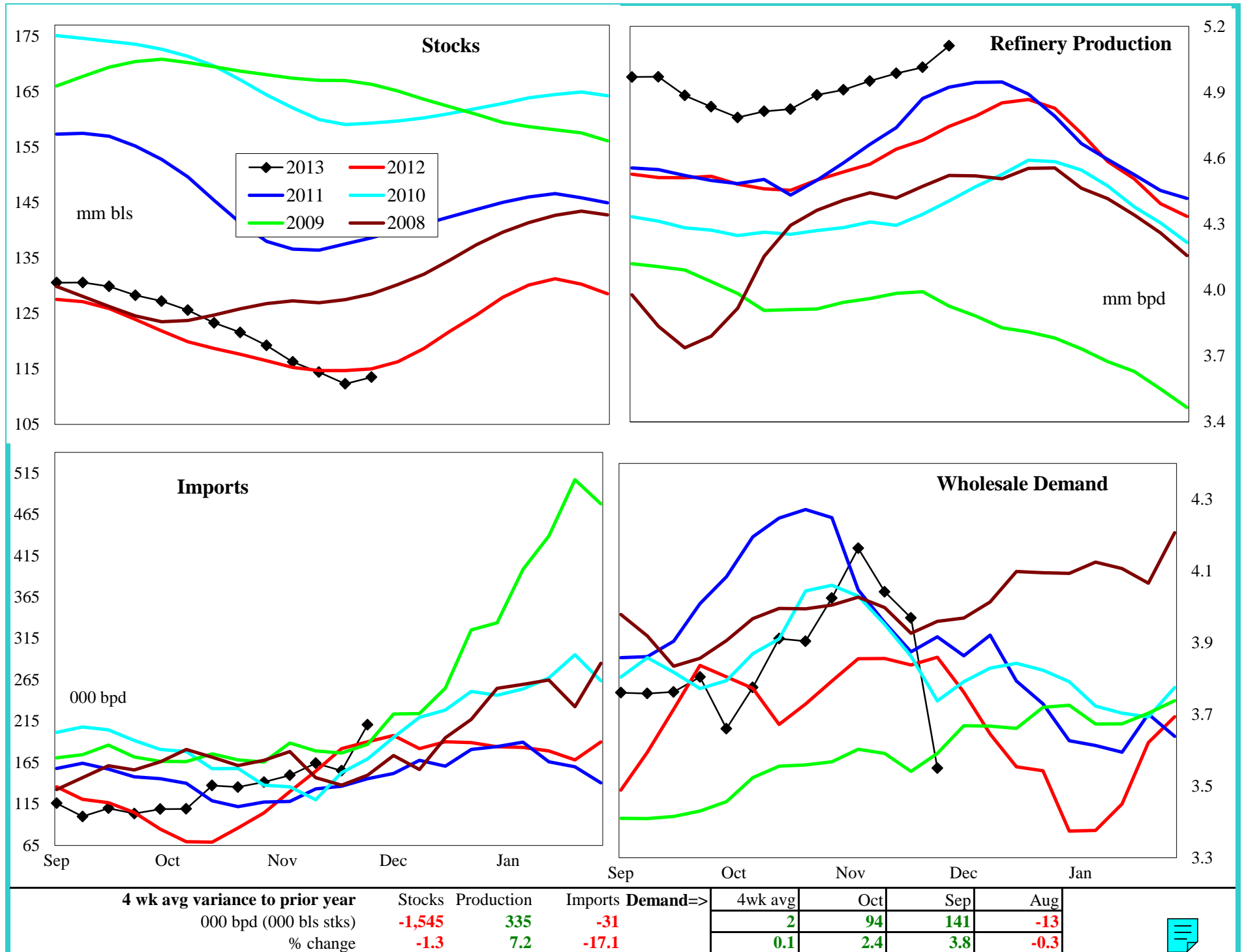
# United States Conventional Gasoline Supply



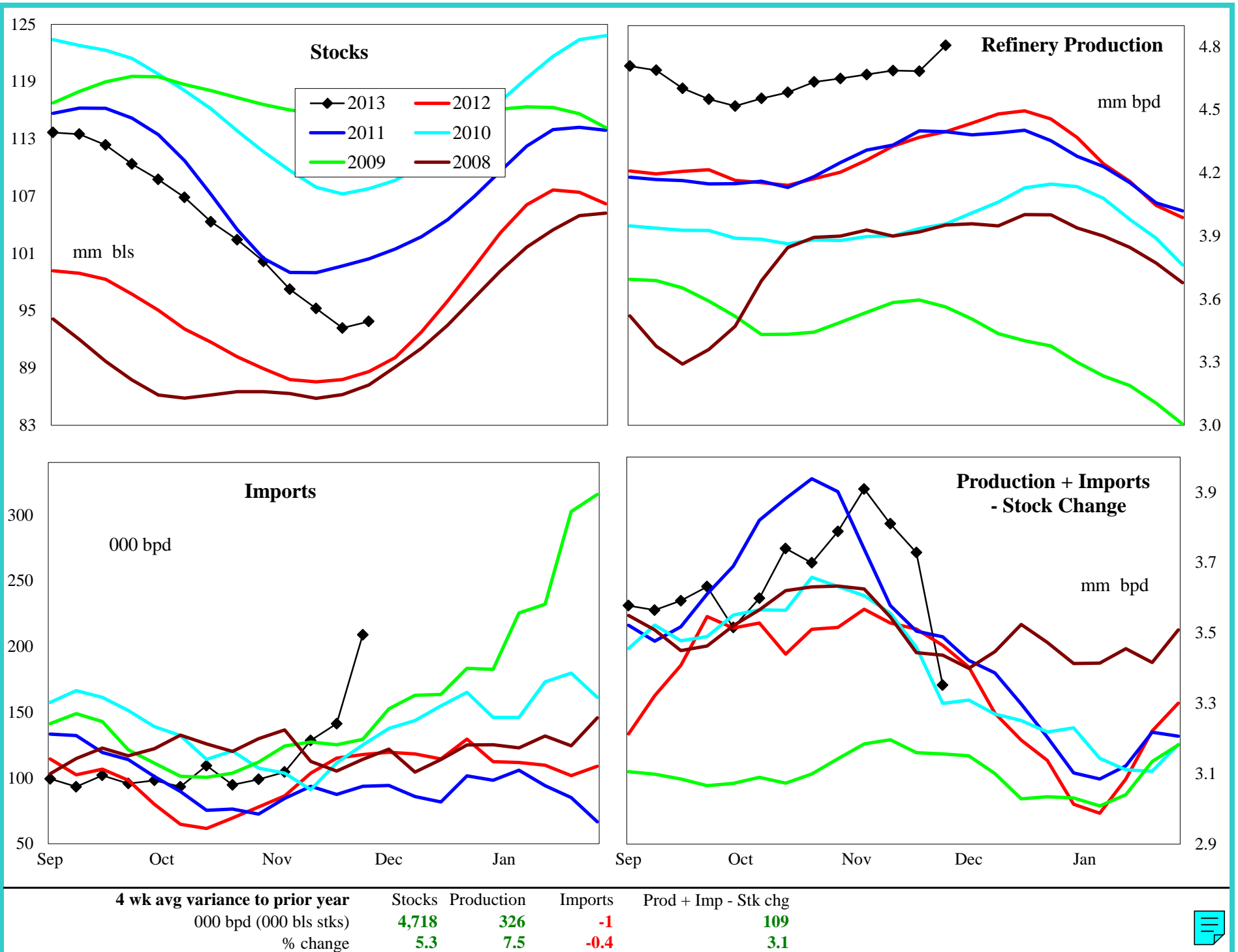
# United States Gasoline Imports by Type



# United States Distillate Supply and Demand Balance

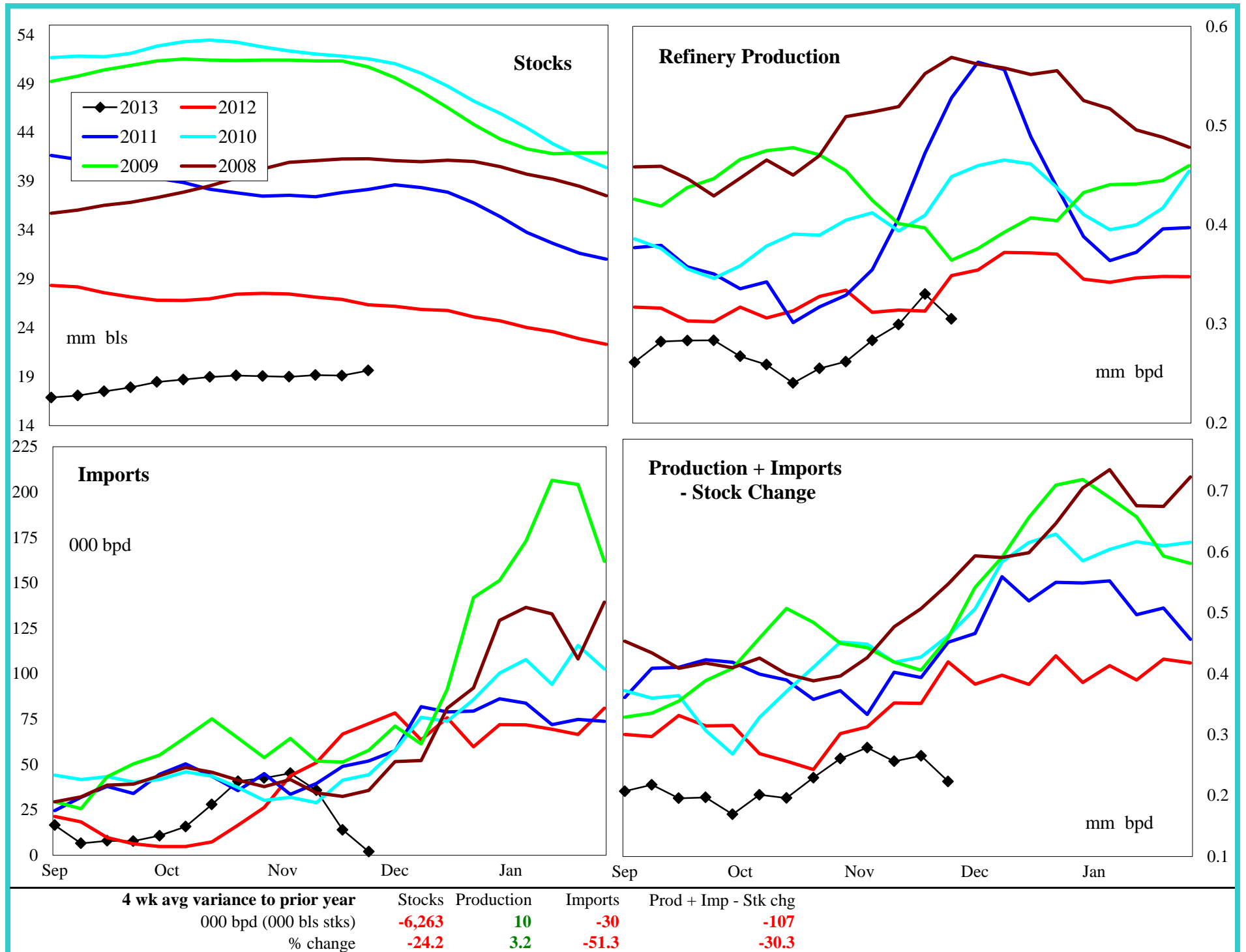


# United States Low Sulfur Distillate Supply

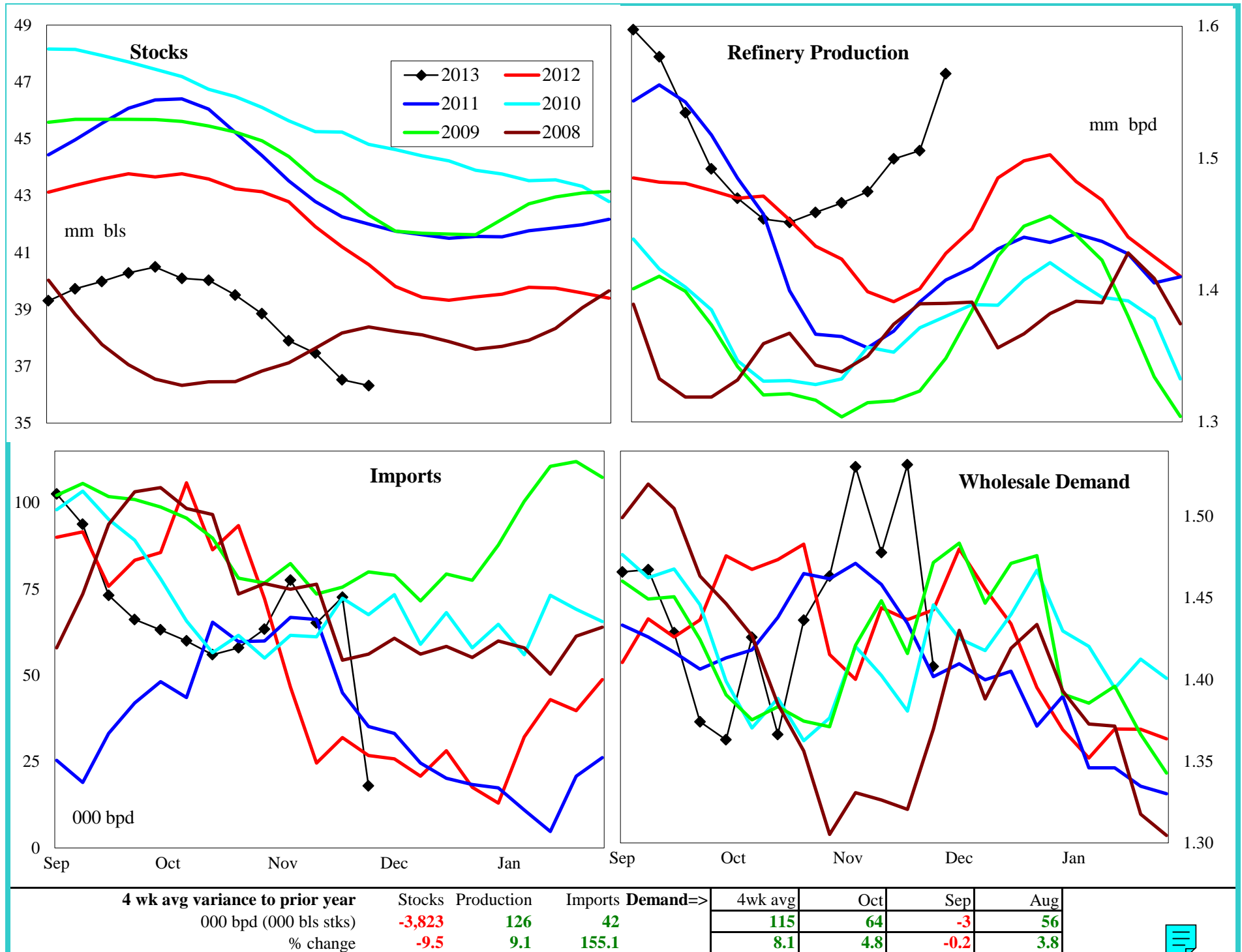




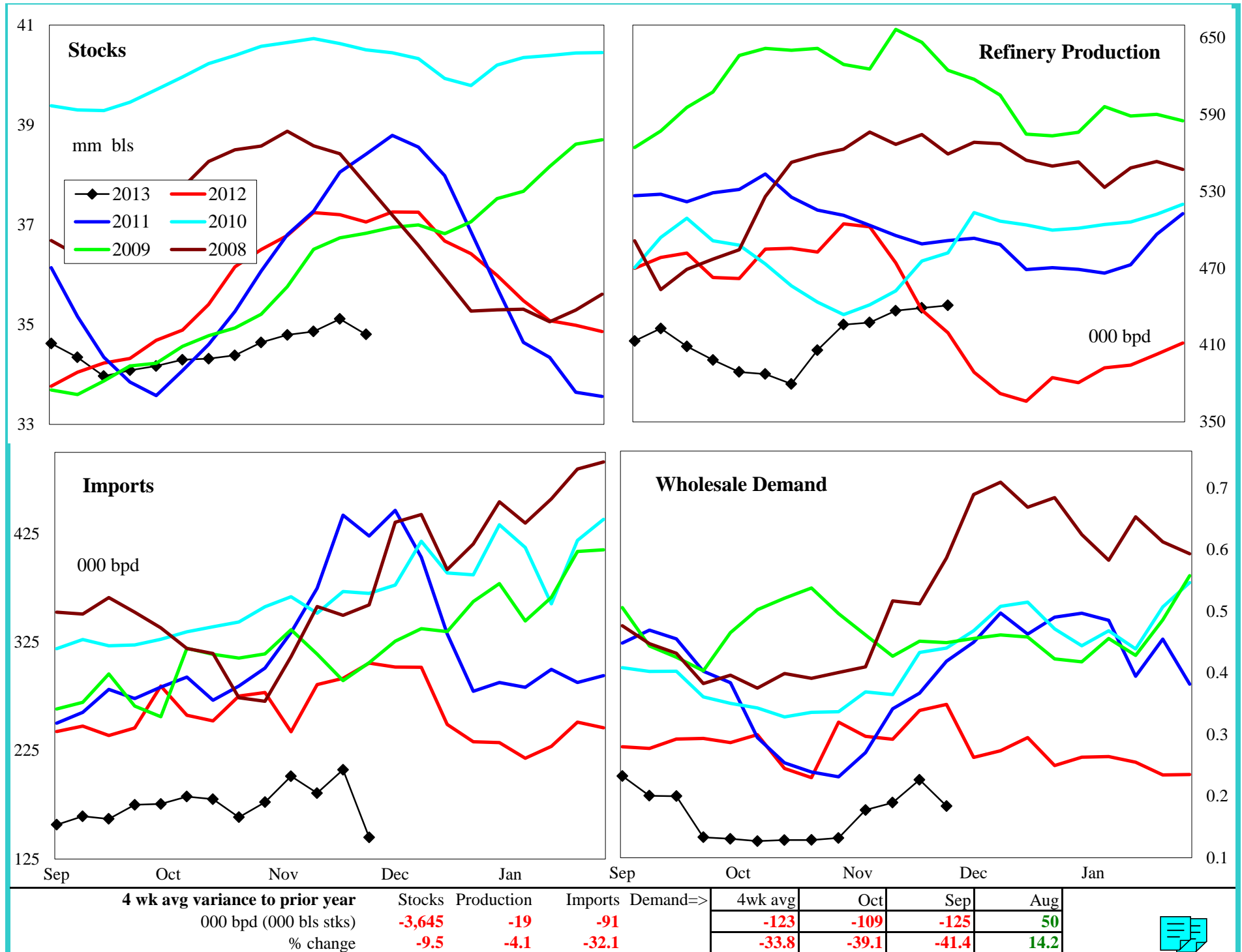
# United States High Sulfur Distillate Supply



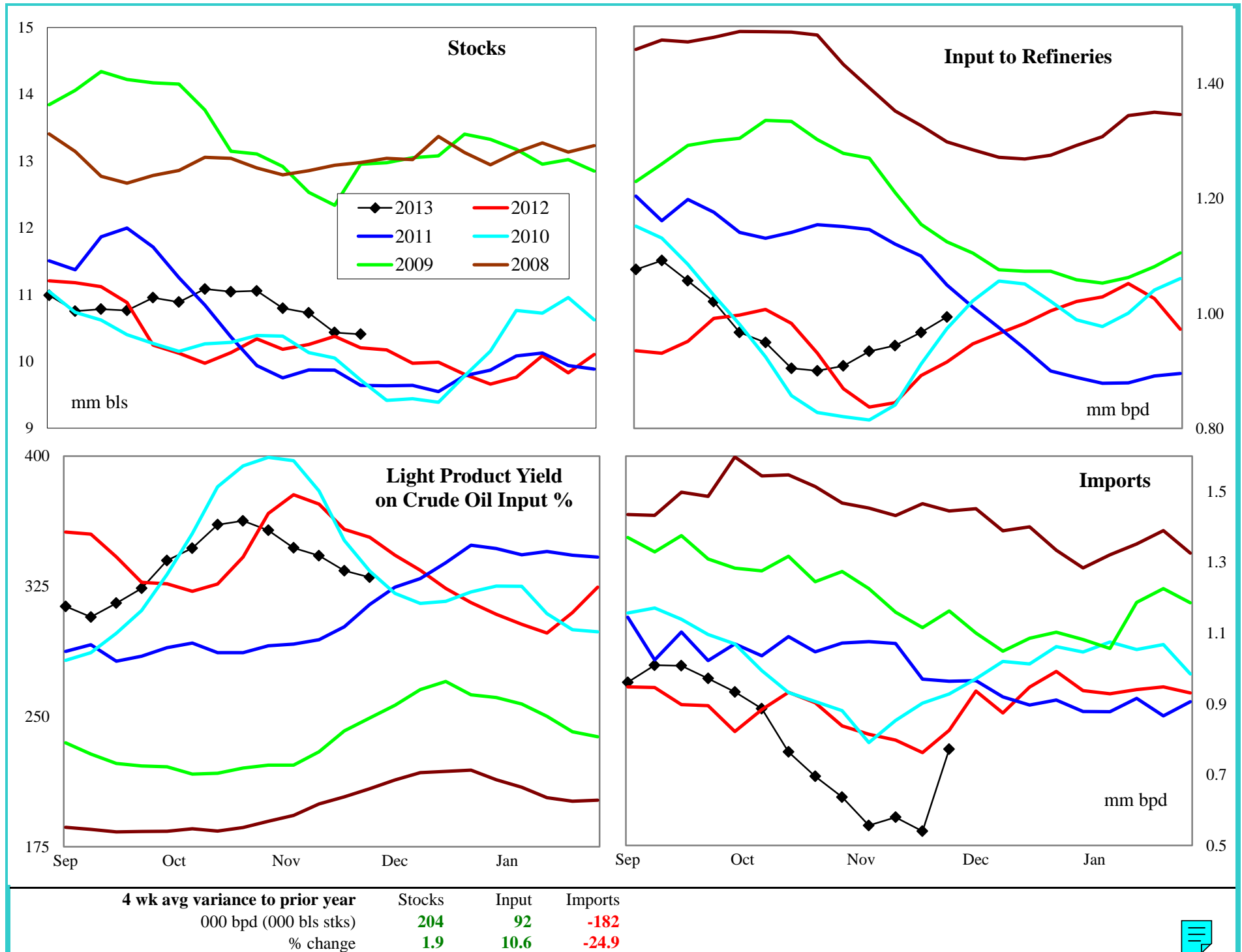
# United States Jet Fuel Supply and Demand Balance



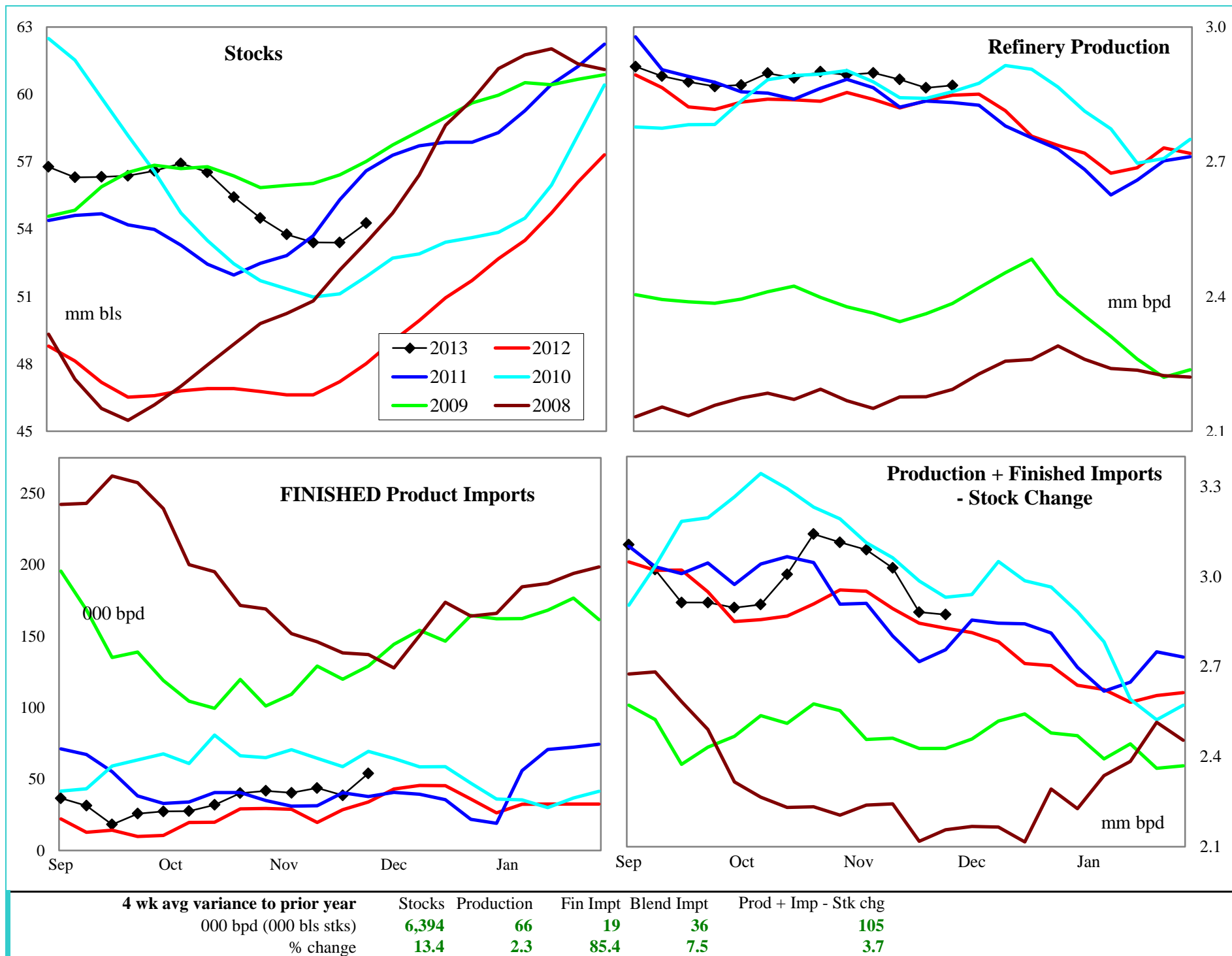
# United States Residual Fuel Oil Supply and Demand Balance



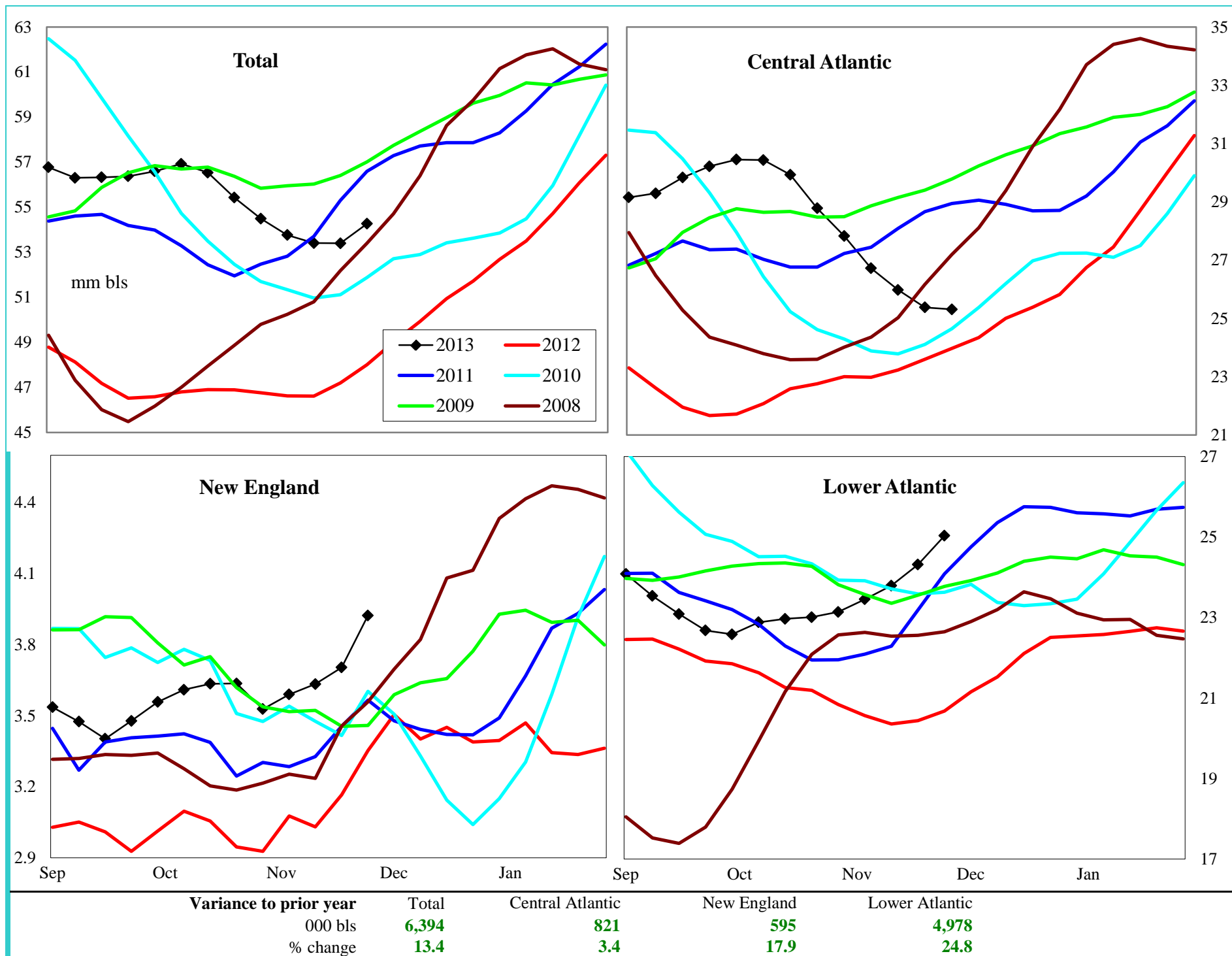
# PADD 1 Crude Oil Supply and Refining



## PADD 1 Gasoline Supply

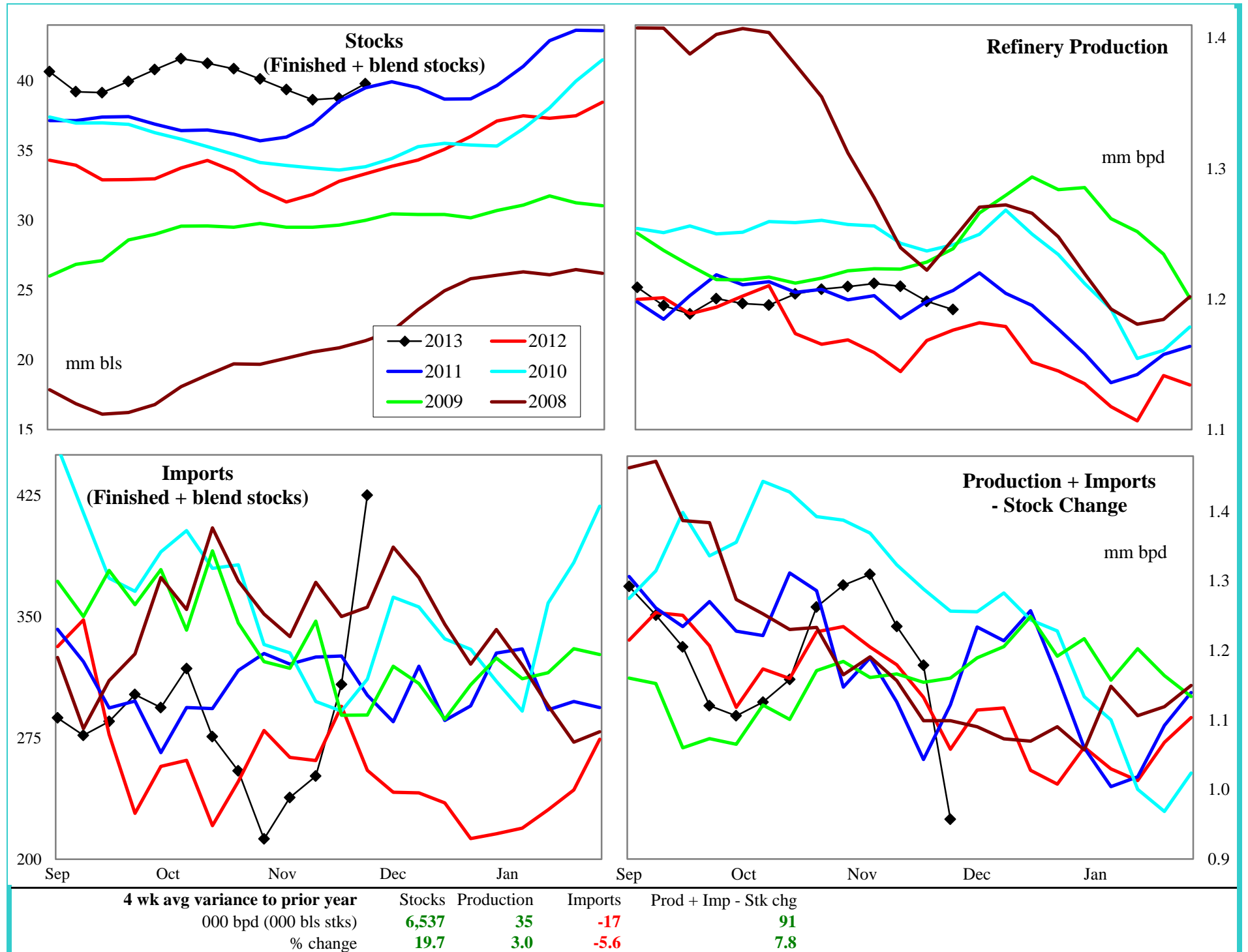


# PADD 1 Gasoline Stocks by Region

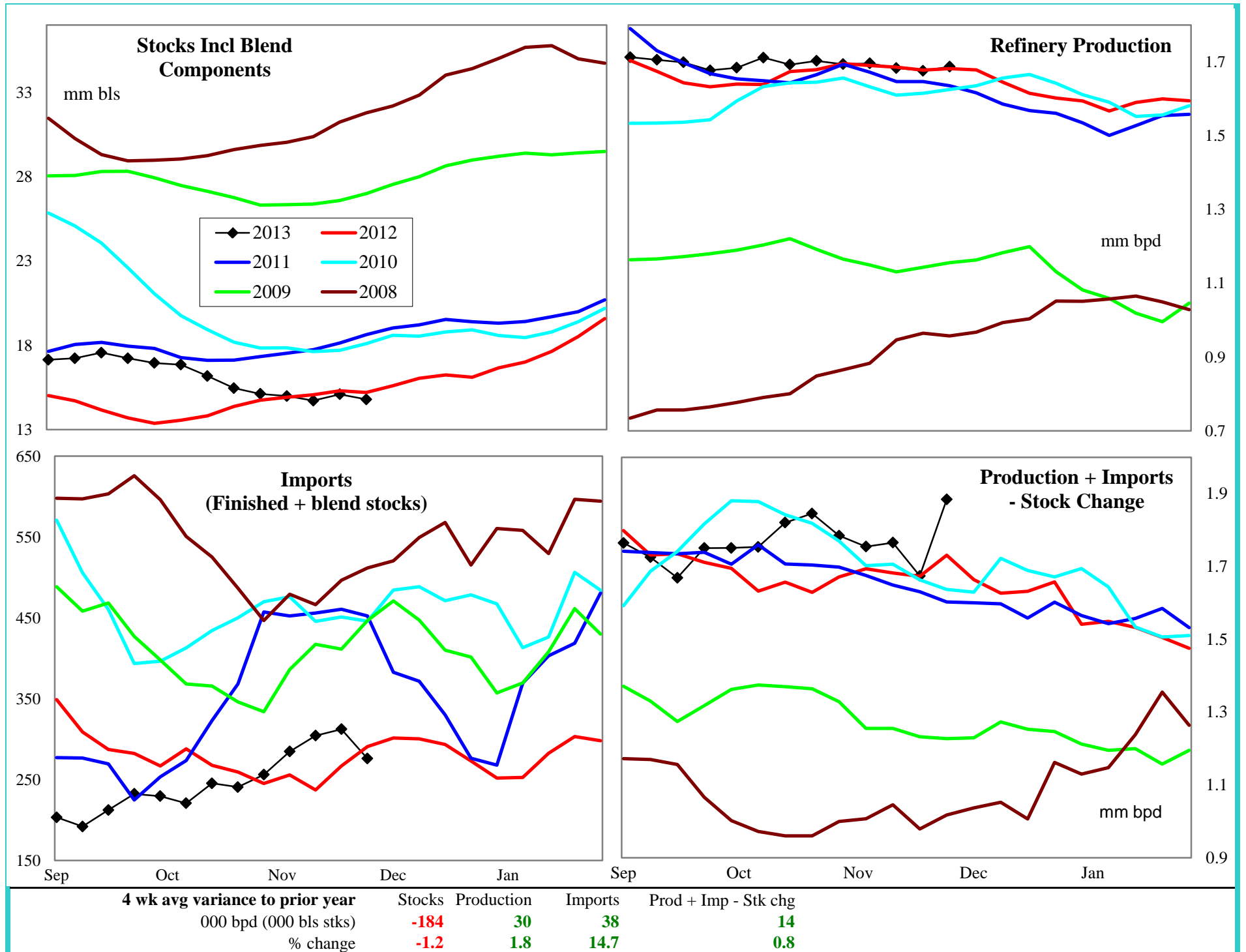




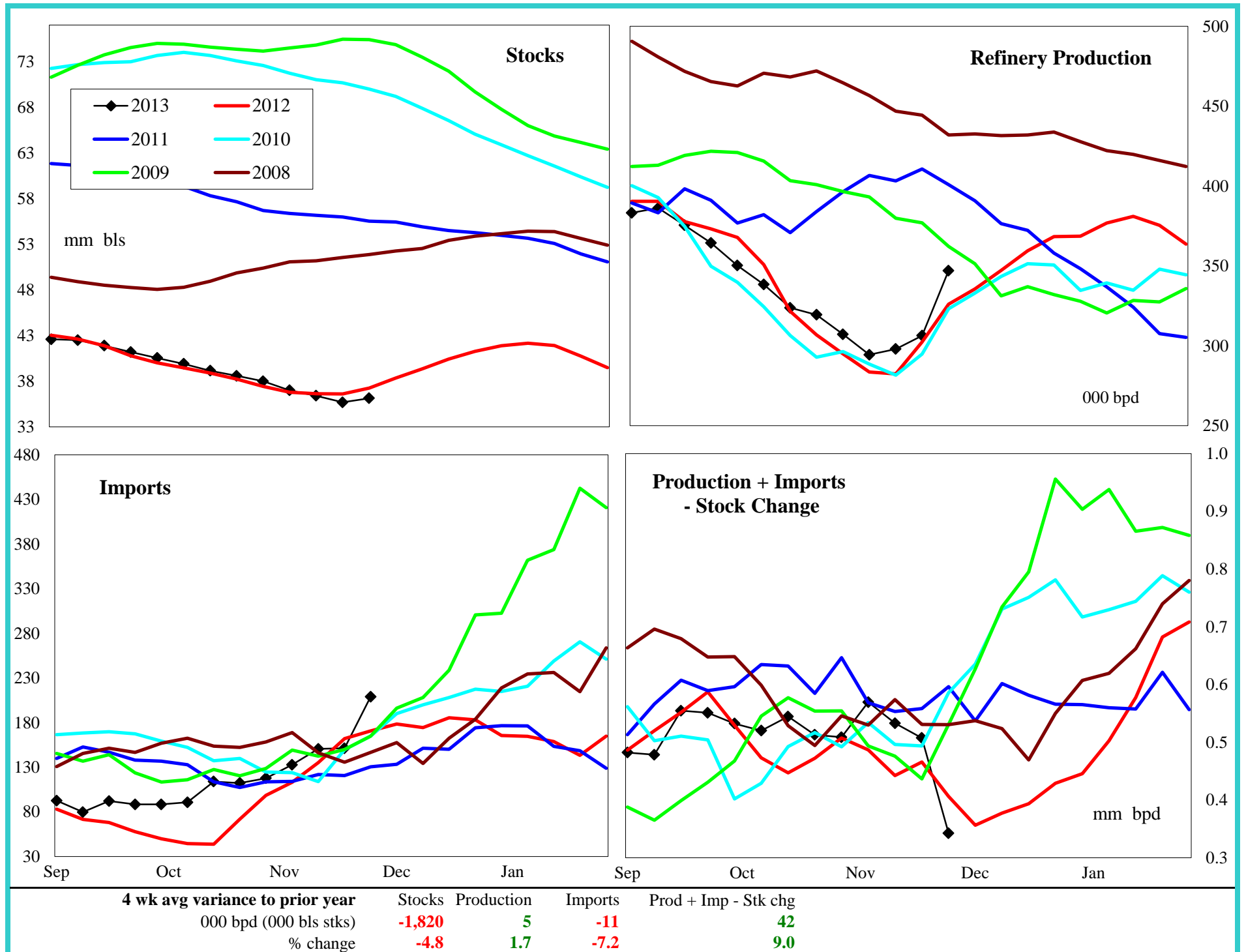
# PADD 1 Reformulated Gasoline Supply



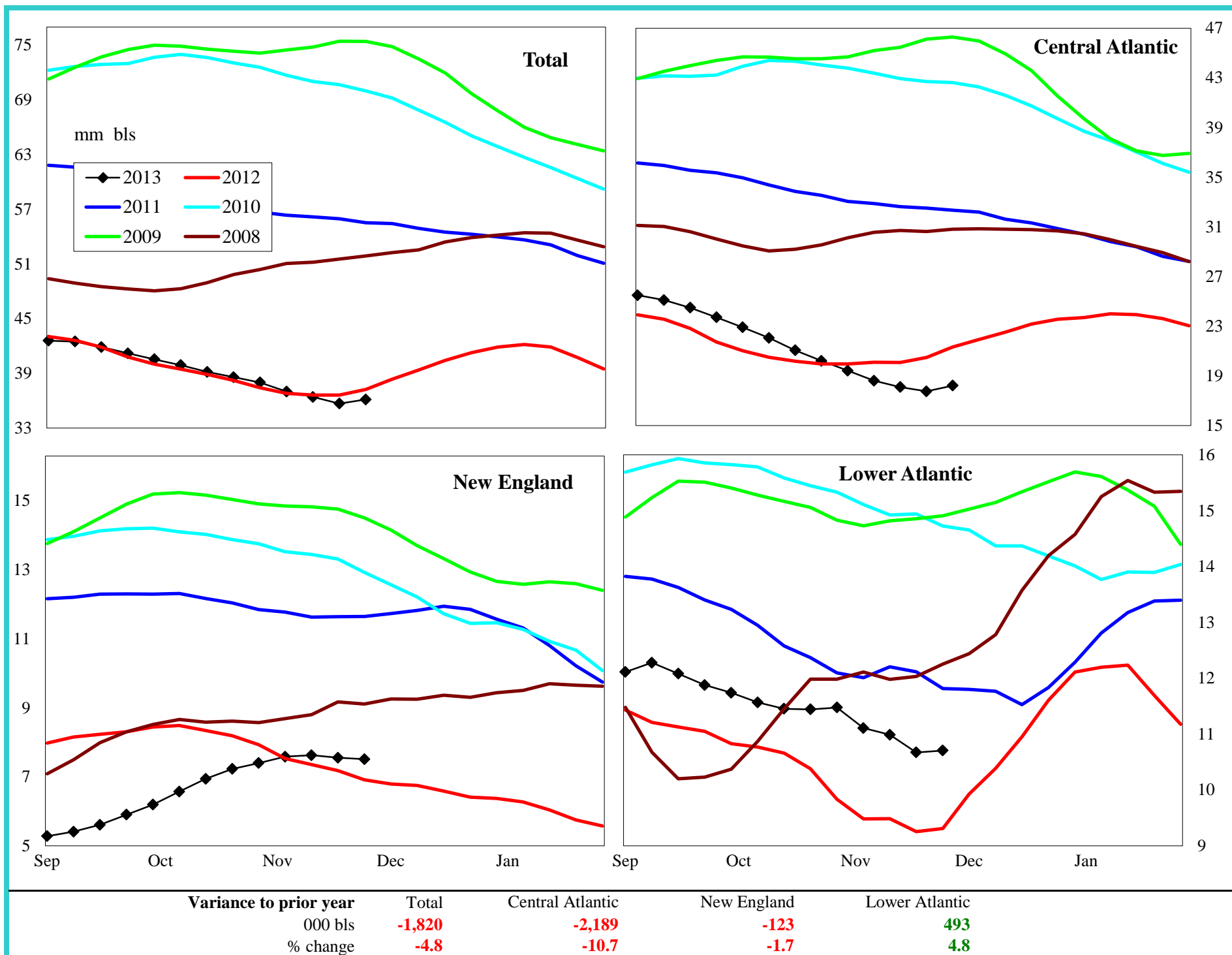
# PADD 1 Conventional Gasoline Supply



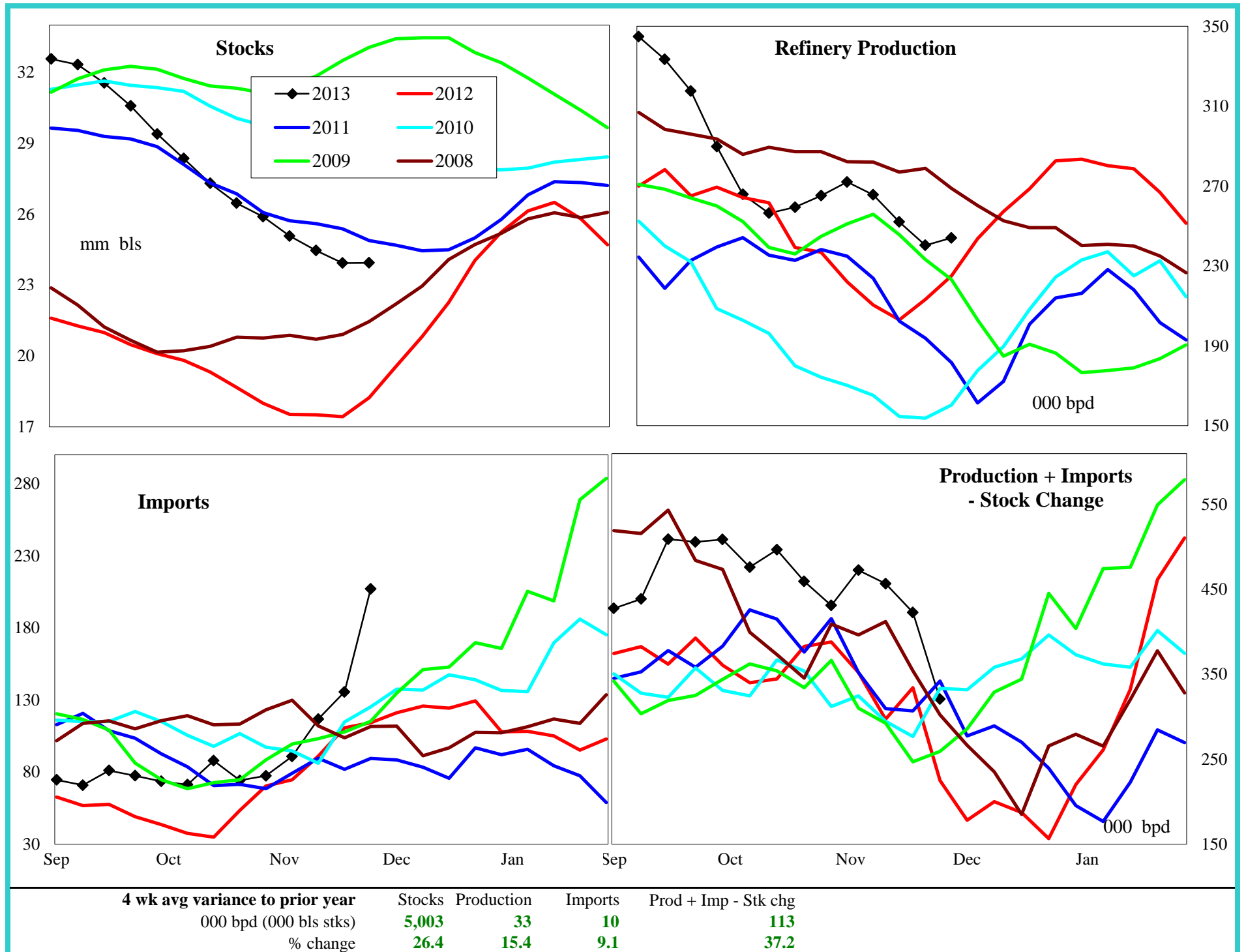
# PADD 1 Distillate Supply



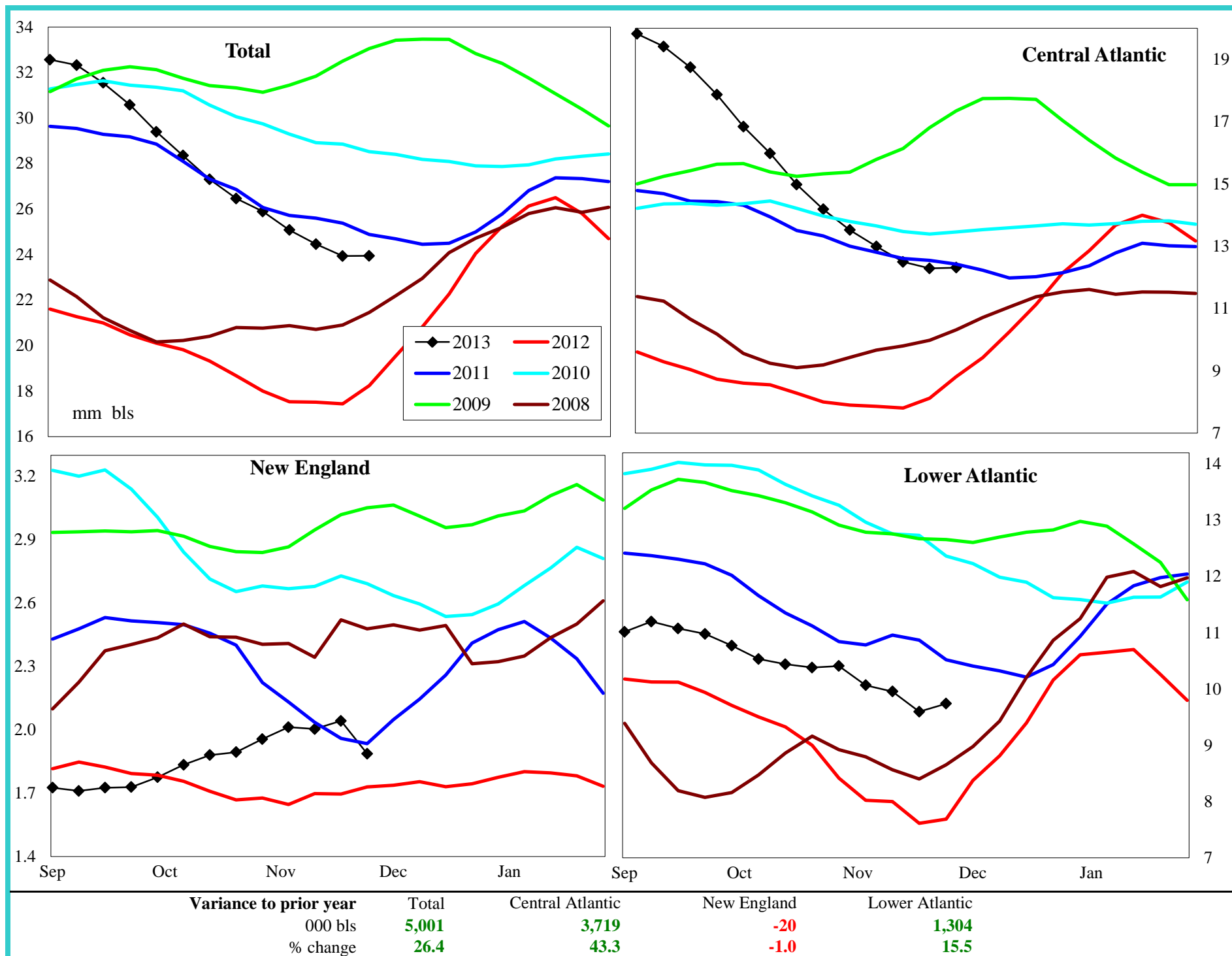
# PADD 1 Distillate Stocks by Region



# PADD 1 Low Sulfur Distillate Supply

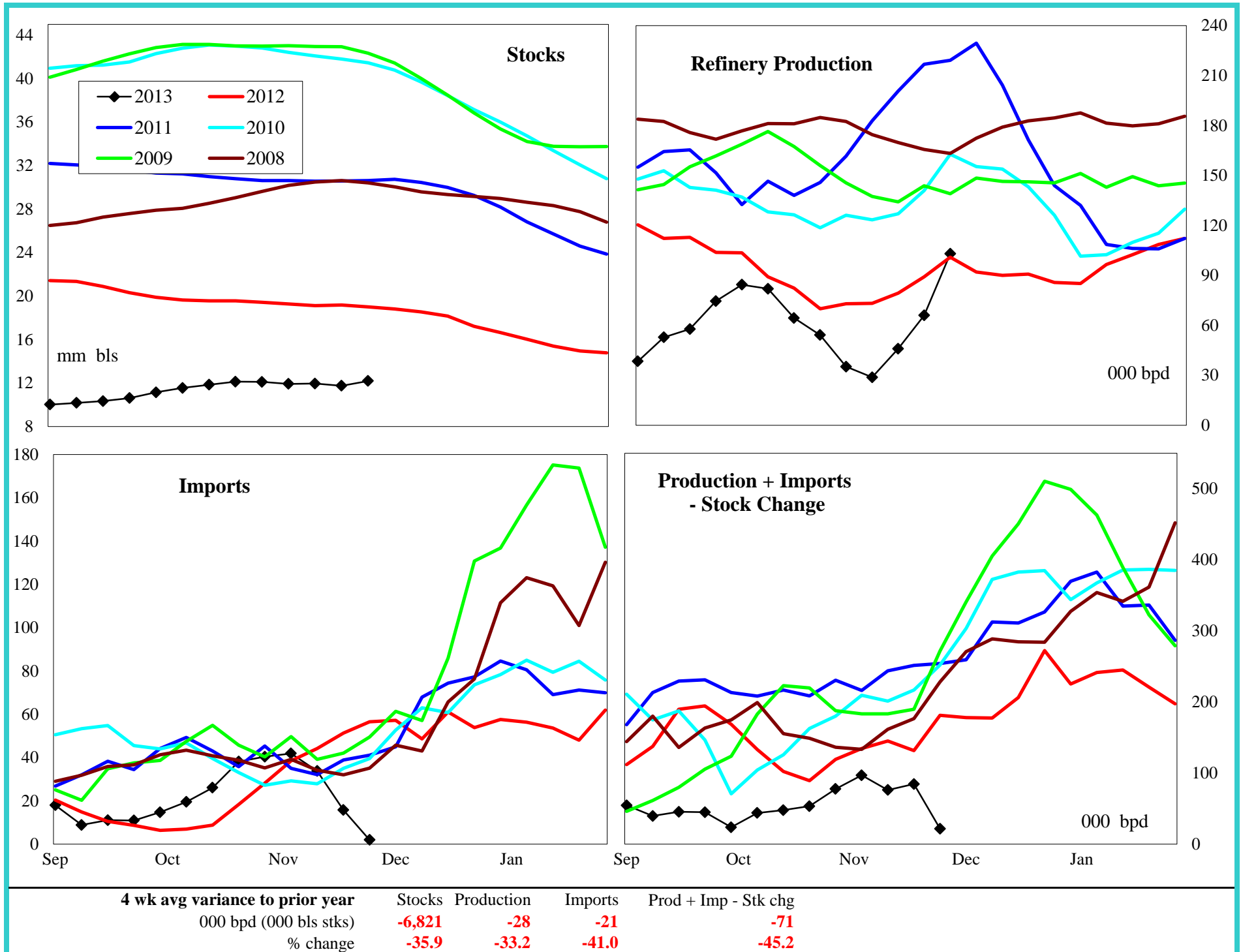


# PADD 1 Low Sulfur Distillate Stocks by Region

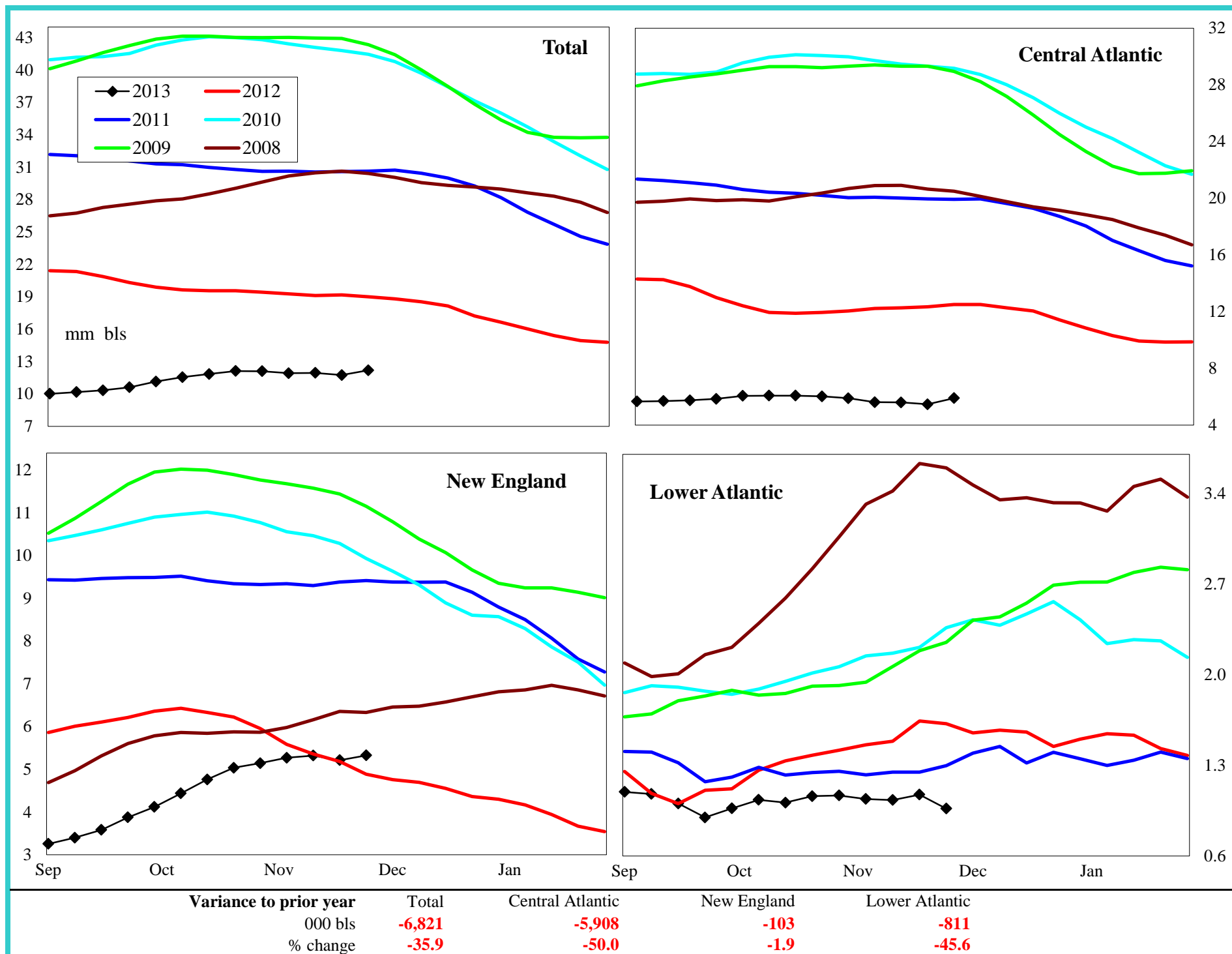




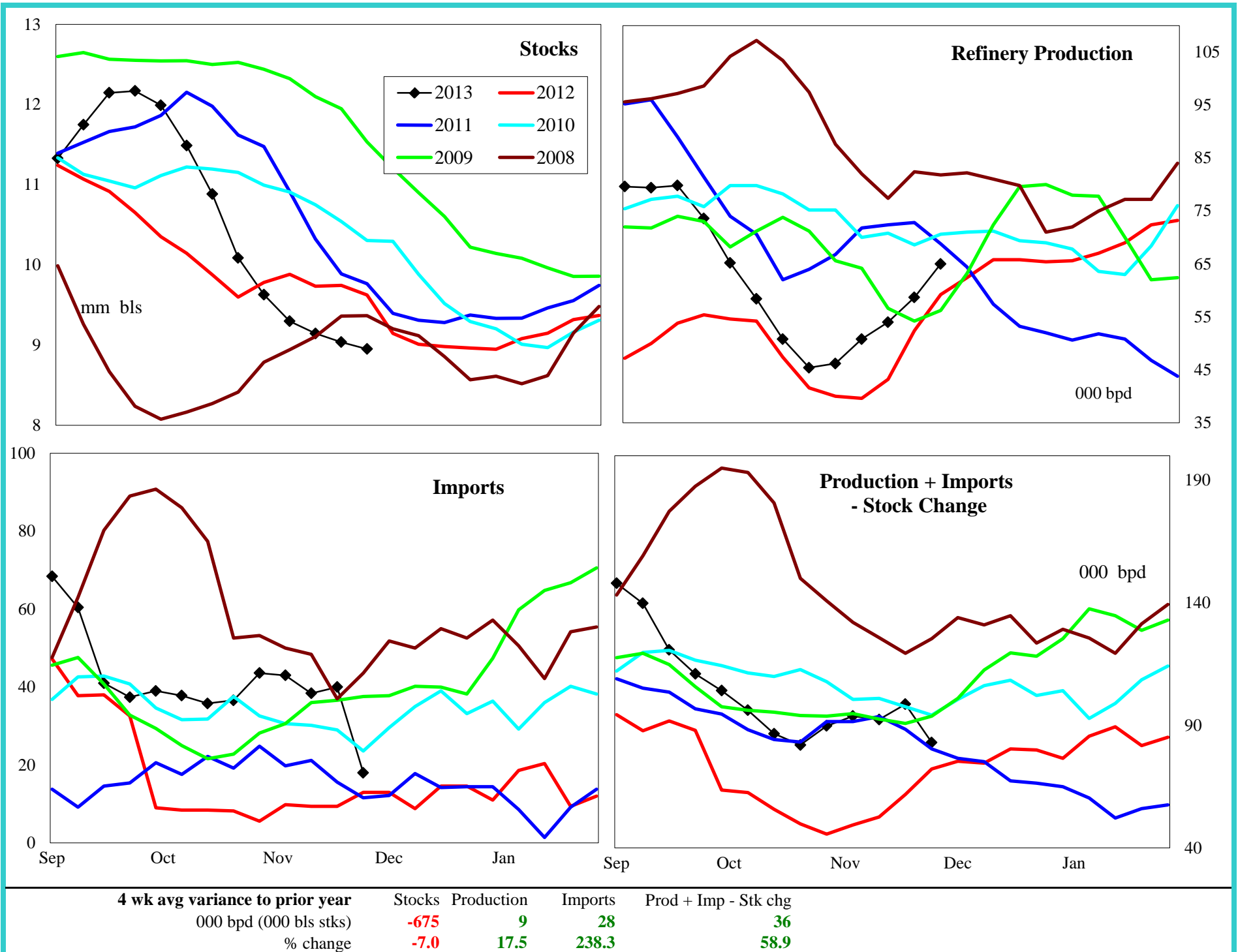
# PADD 1 High Sulfur Distillate Supply



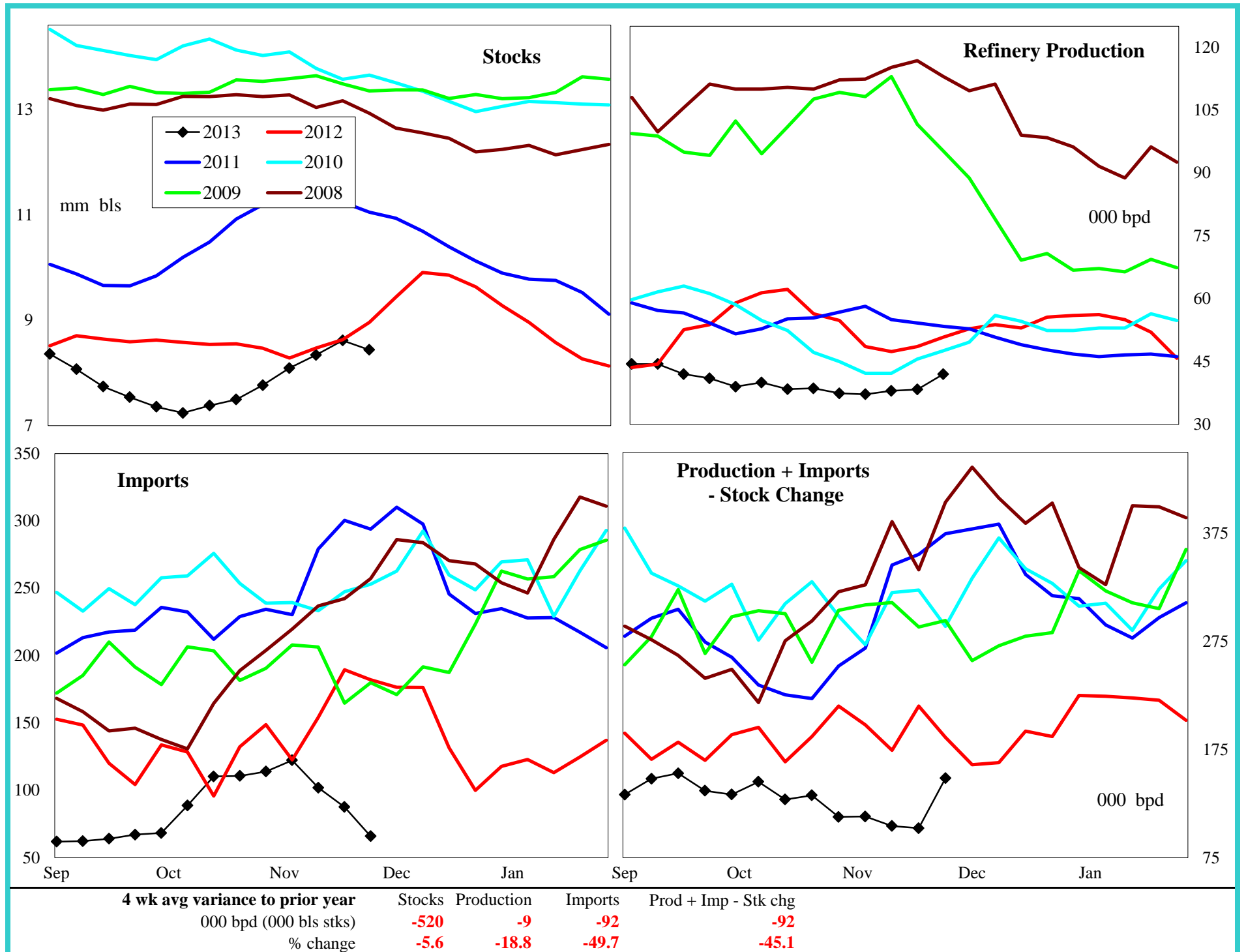
# PADD 1 High Sulfur Distillate Stocks by Region



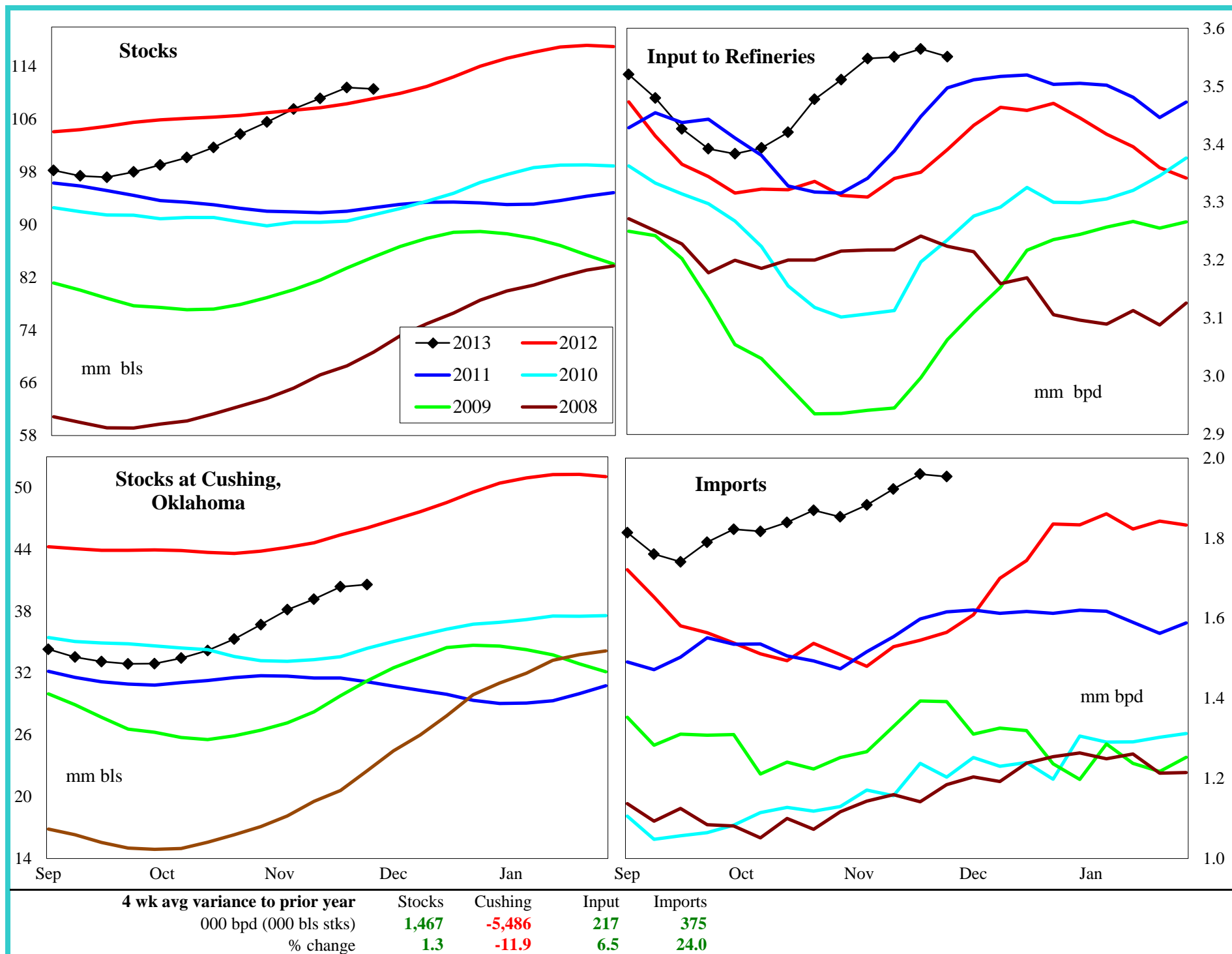
# PADD 1 Jet Fuel Supply



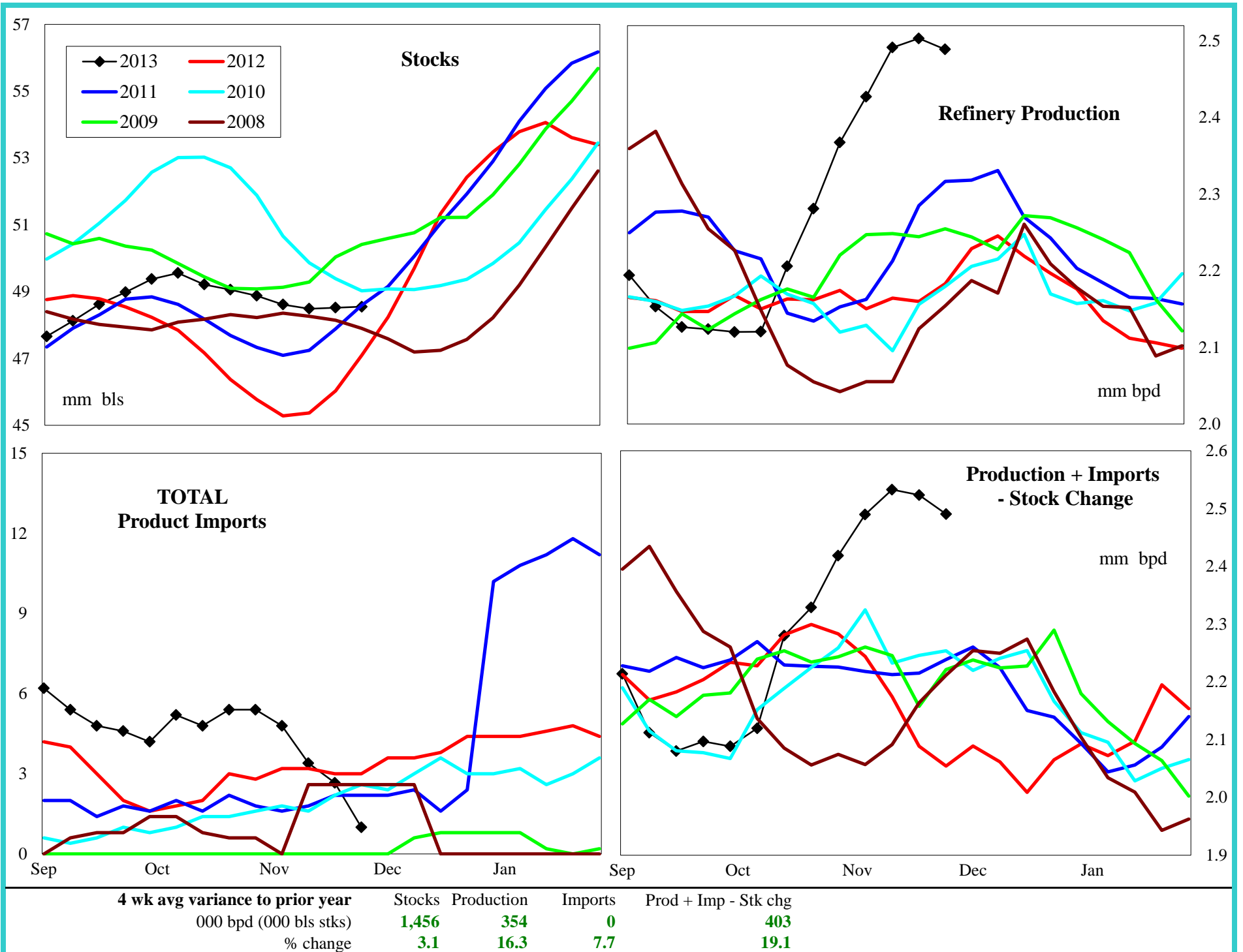
# PADD 1 Residual Fuel Oil Supply



# PADD 2 Crude Oil Supply and Refining

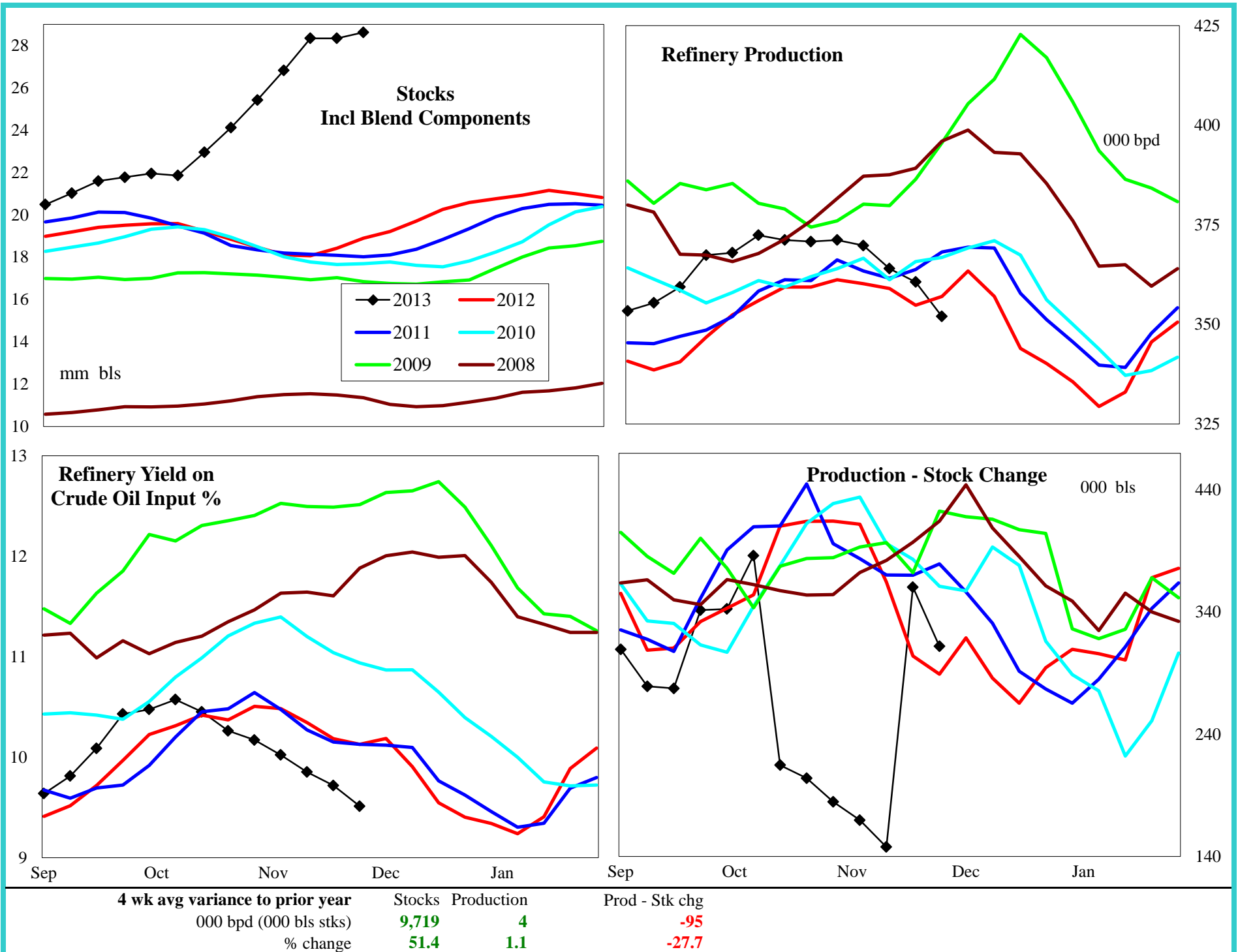


# PADD 2 Gasoline Supply

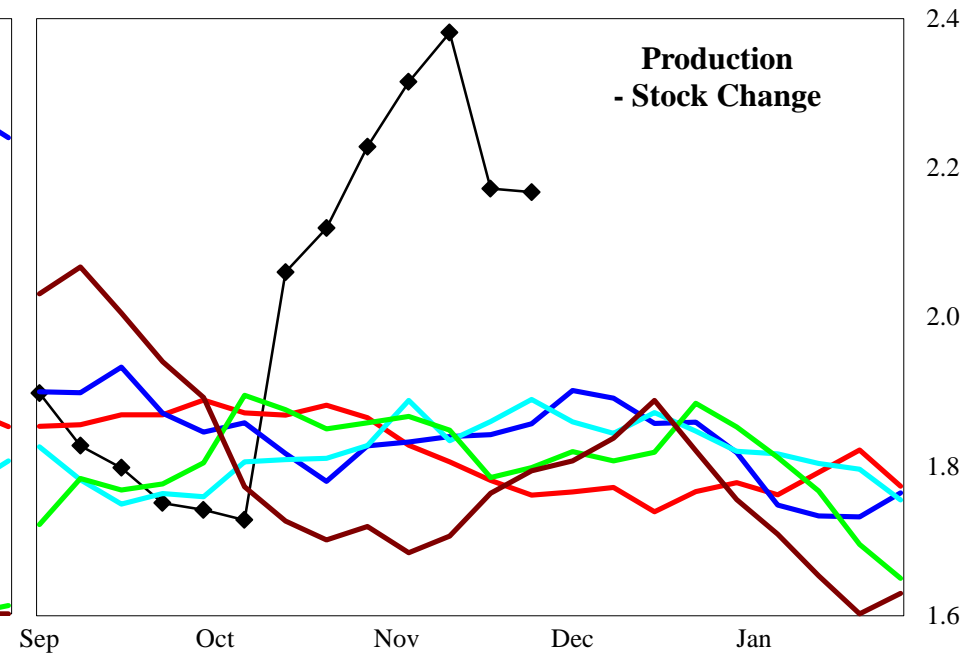
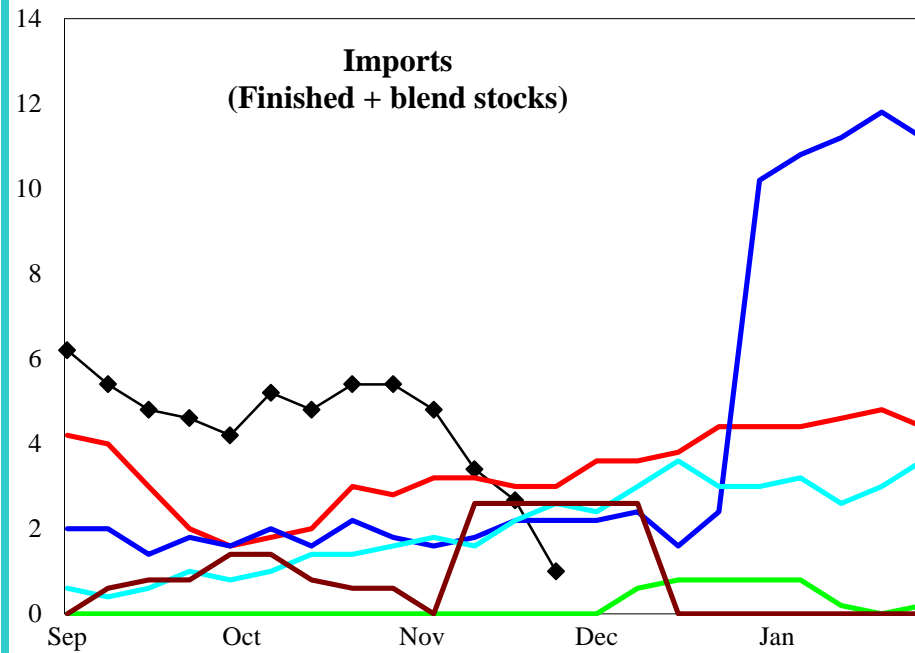
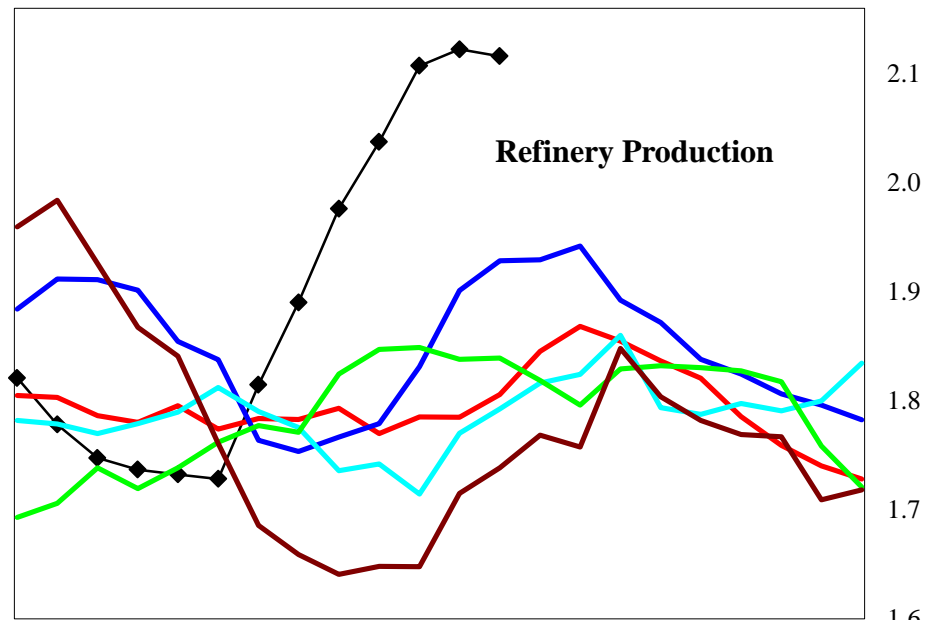
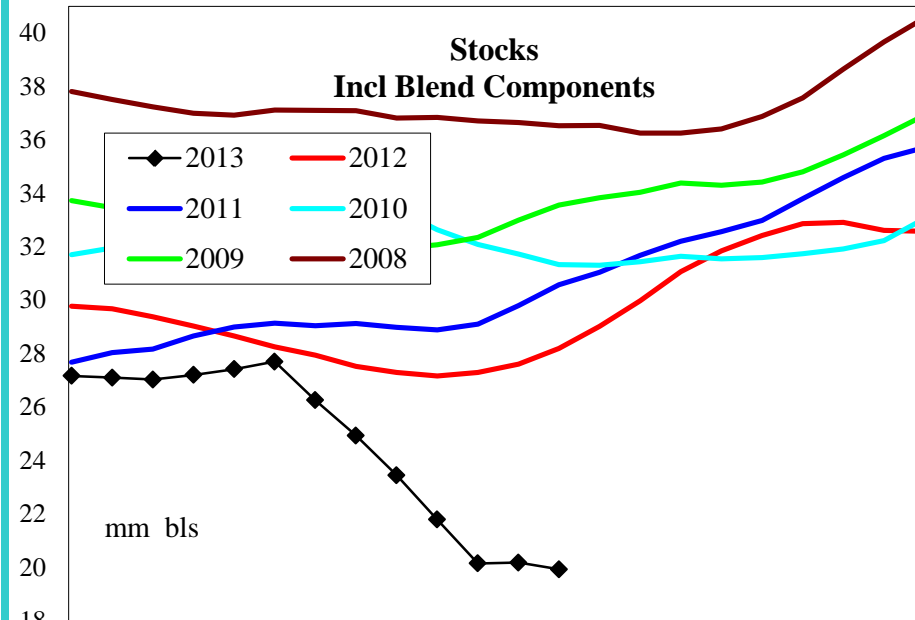




# PADD 2 Reformulated Gasoline Supply



# PADD 2 Conventional Gasoline Supply



**4 wk avg variance to prior year**

000 bpd (000 bbls stks)

% change

**Stocks**

**-8,330**

**-29.5**

**Production**

**346**

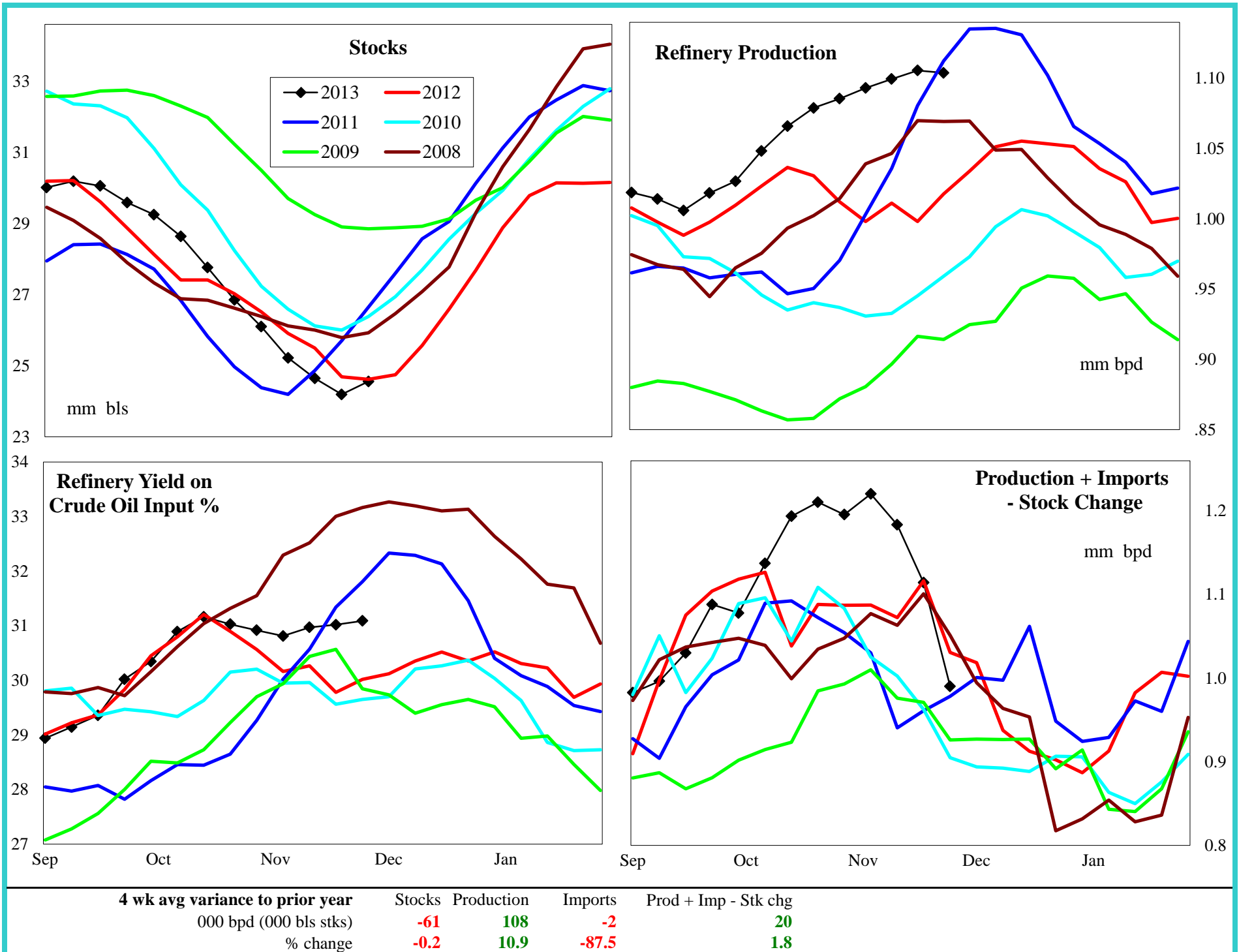
**19.1**

**Prod - Stk chg**

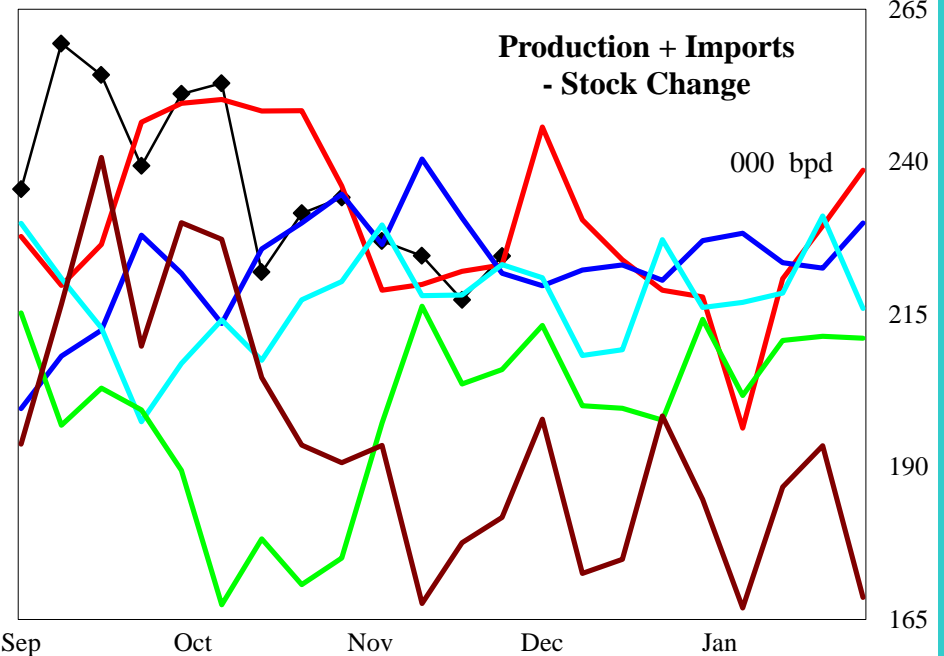
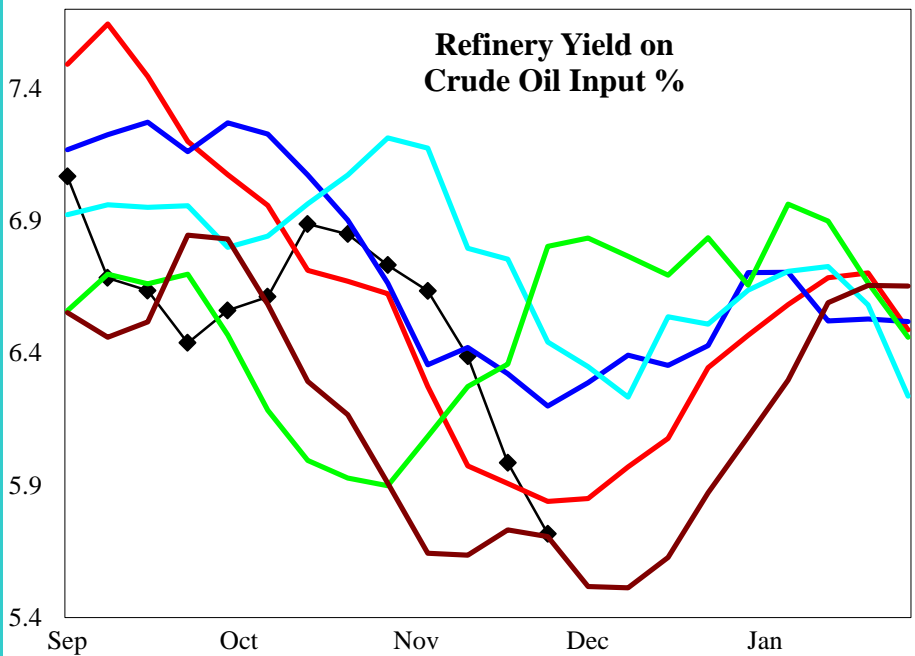
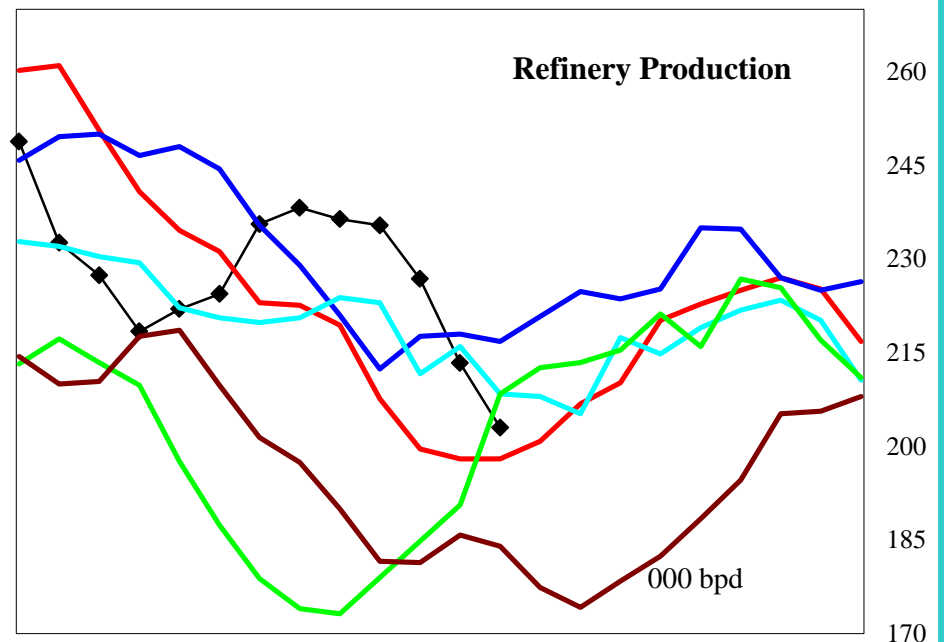
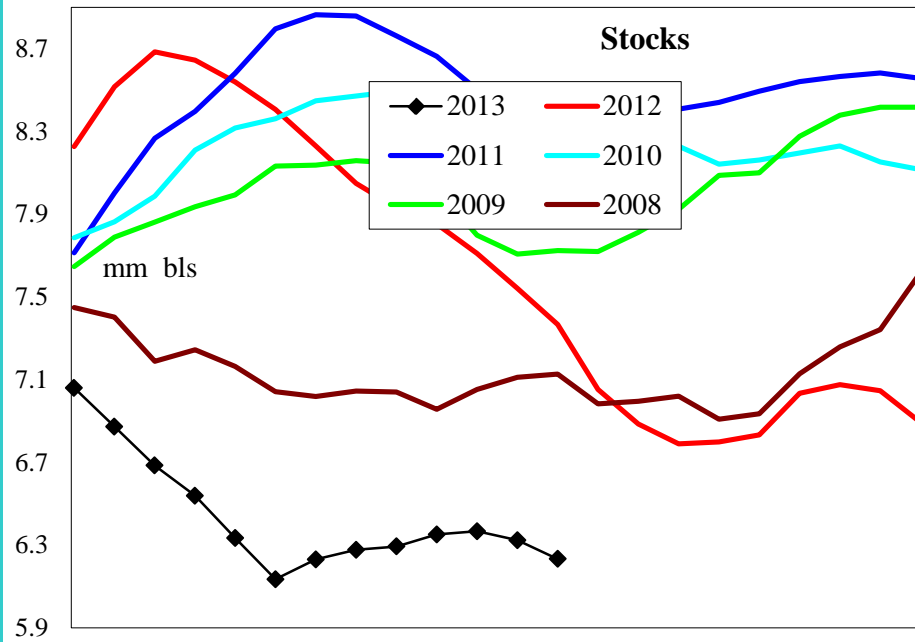
**367**

**20.5**

# PADD 2 Distillate Supply



## PADD 2 Jet Fuel Supply



4 wk avg variance to prior year

000 bpd (000 bbls stks)

% change

Stocks

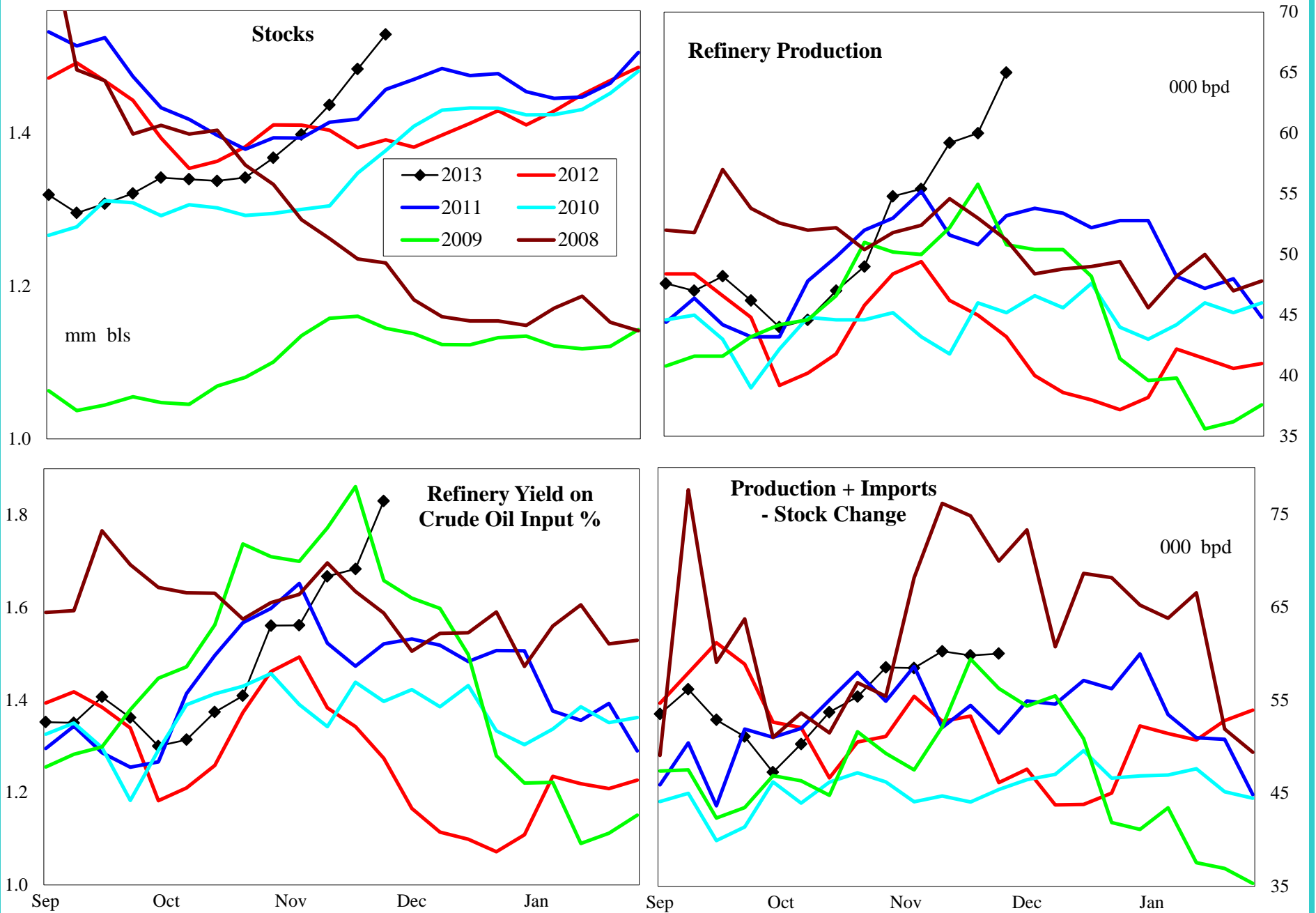
Production

Imports

Prod + Imp - Stk chg

**-1,133****24****0****8****-15.4****12.1****#DIV/0!****3.6**

# PADD 2 Residual Fuel Oil Supply



**4 wk avg variance to prior year**

000 bpd (000 bls stks)

% change

Stocks

Production

Imports

Prod + Imp - Stk chg

**138**

**15**

**1**

**3**

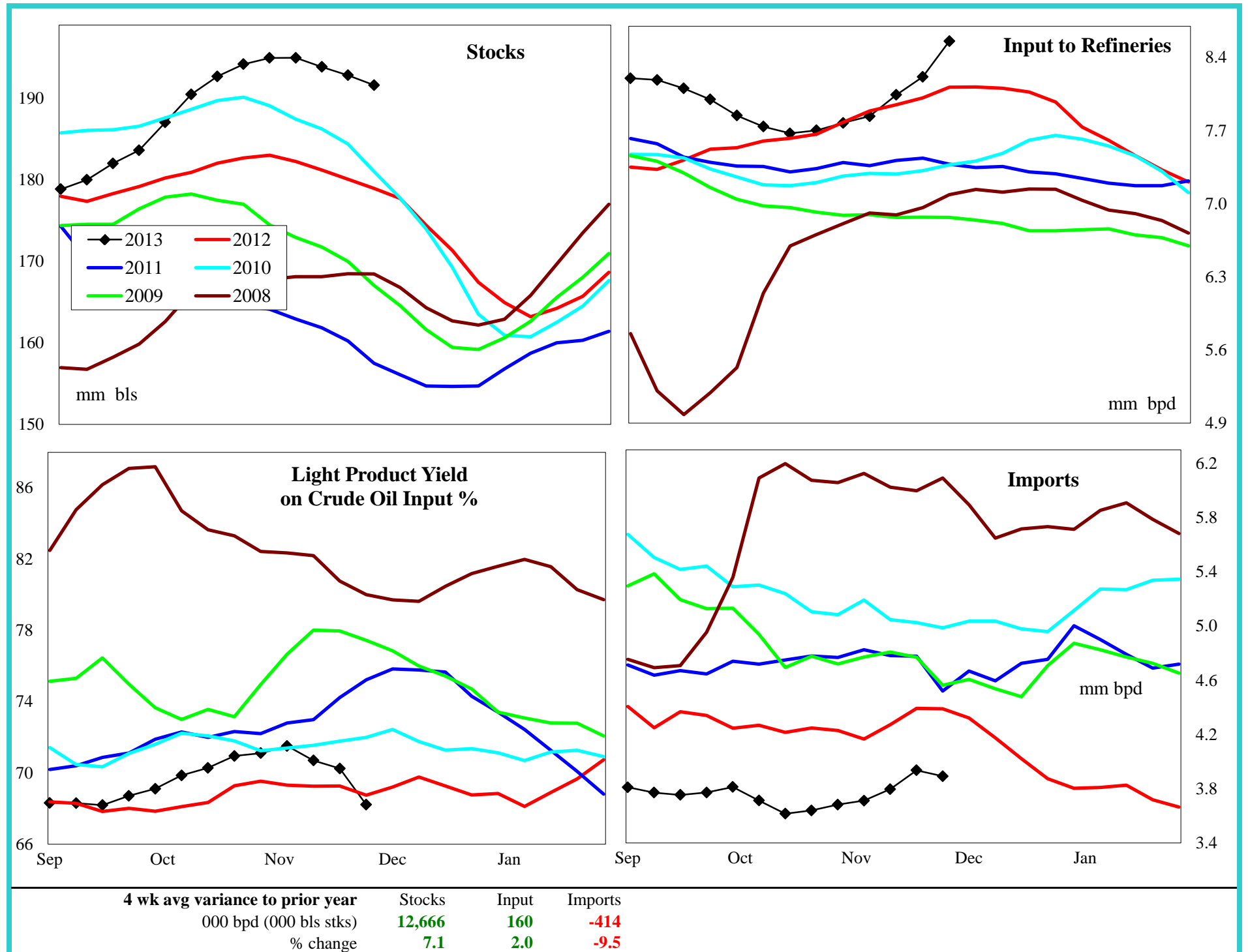
**9.9**

**33.0**

**20.0**

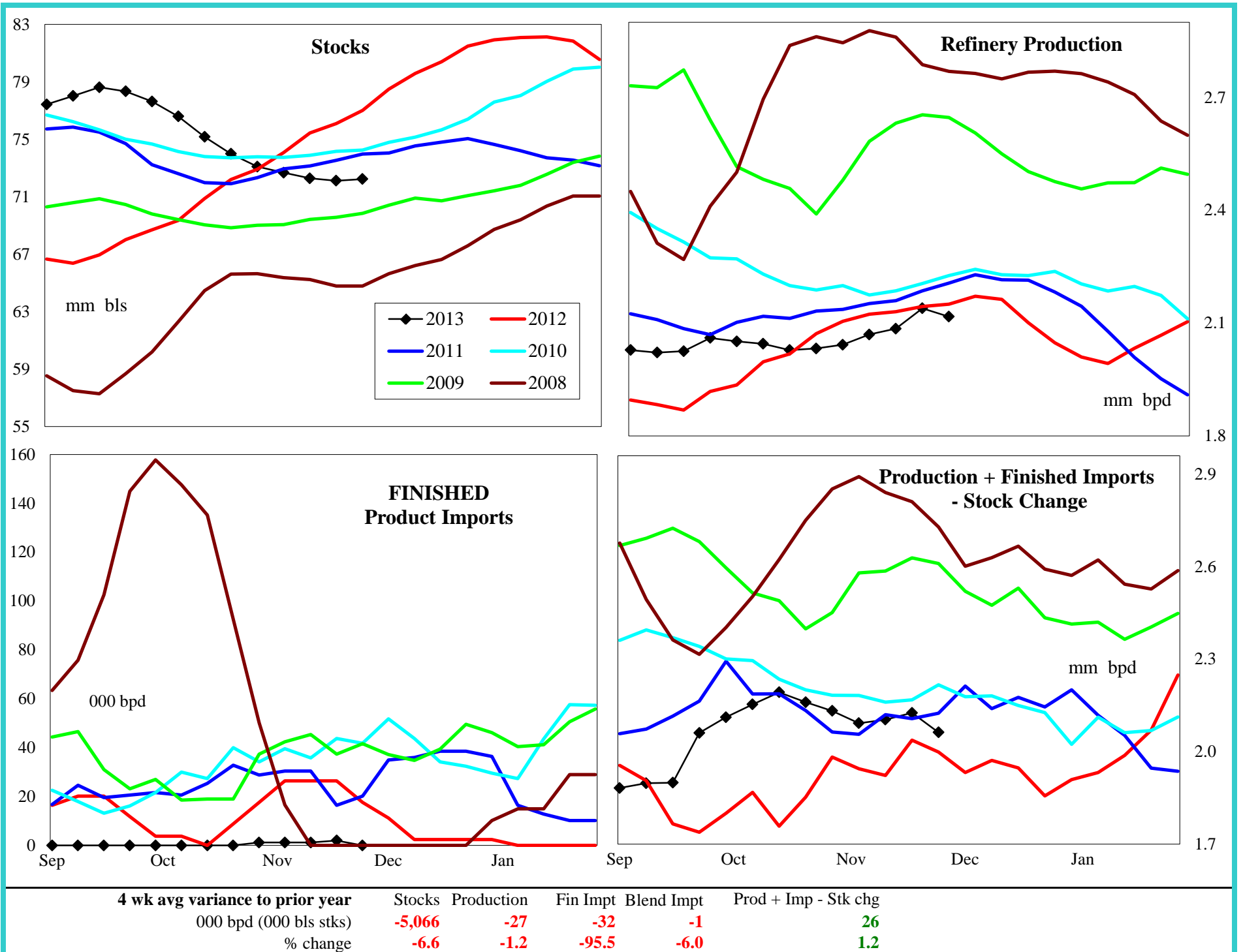
**5.8**

# PADD 3 Crude Oil Supply and Refining

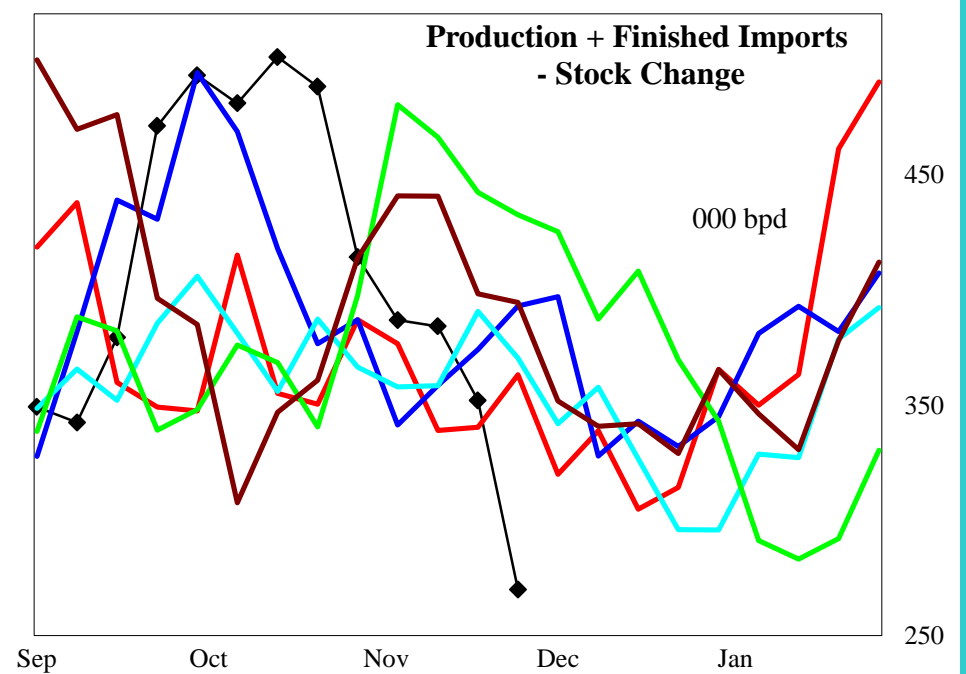
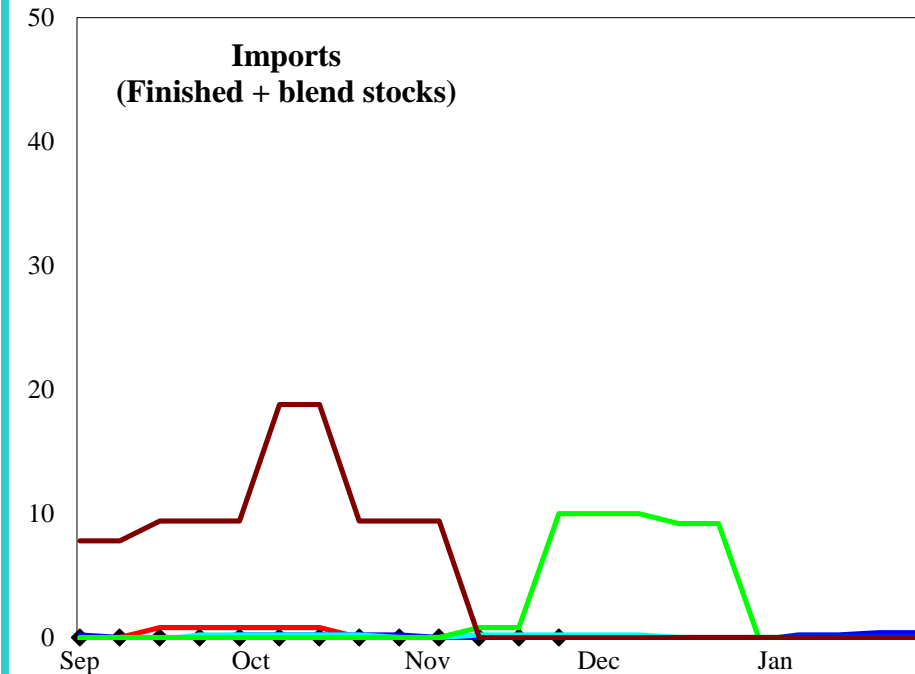
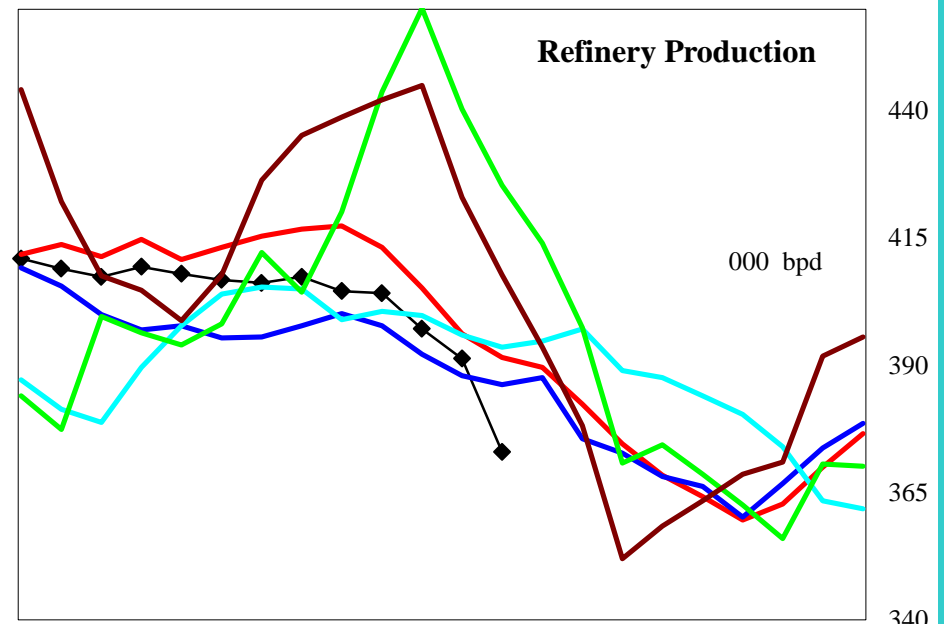
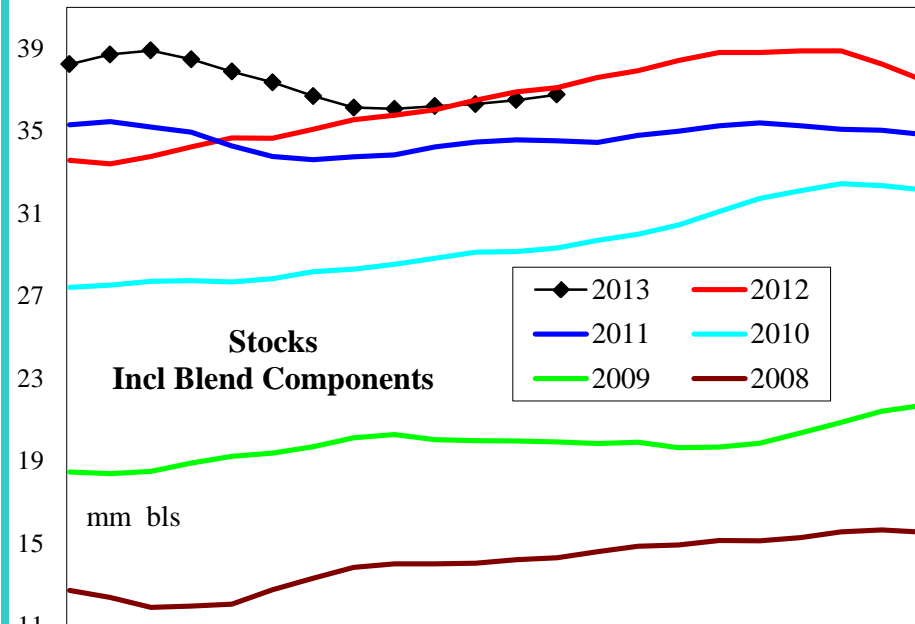




# PADD 3 Gasoline Supply



# PADD 3 Reformulated Gasoline Supply



4 wk avg variance to prior year

000 bpd (000 bls stks)

Stocks

Production

Imports

Prod + Imp - Stk chg

-214

-3

0

-6

% change

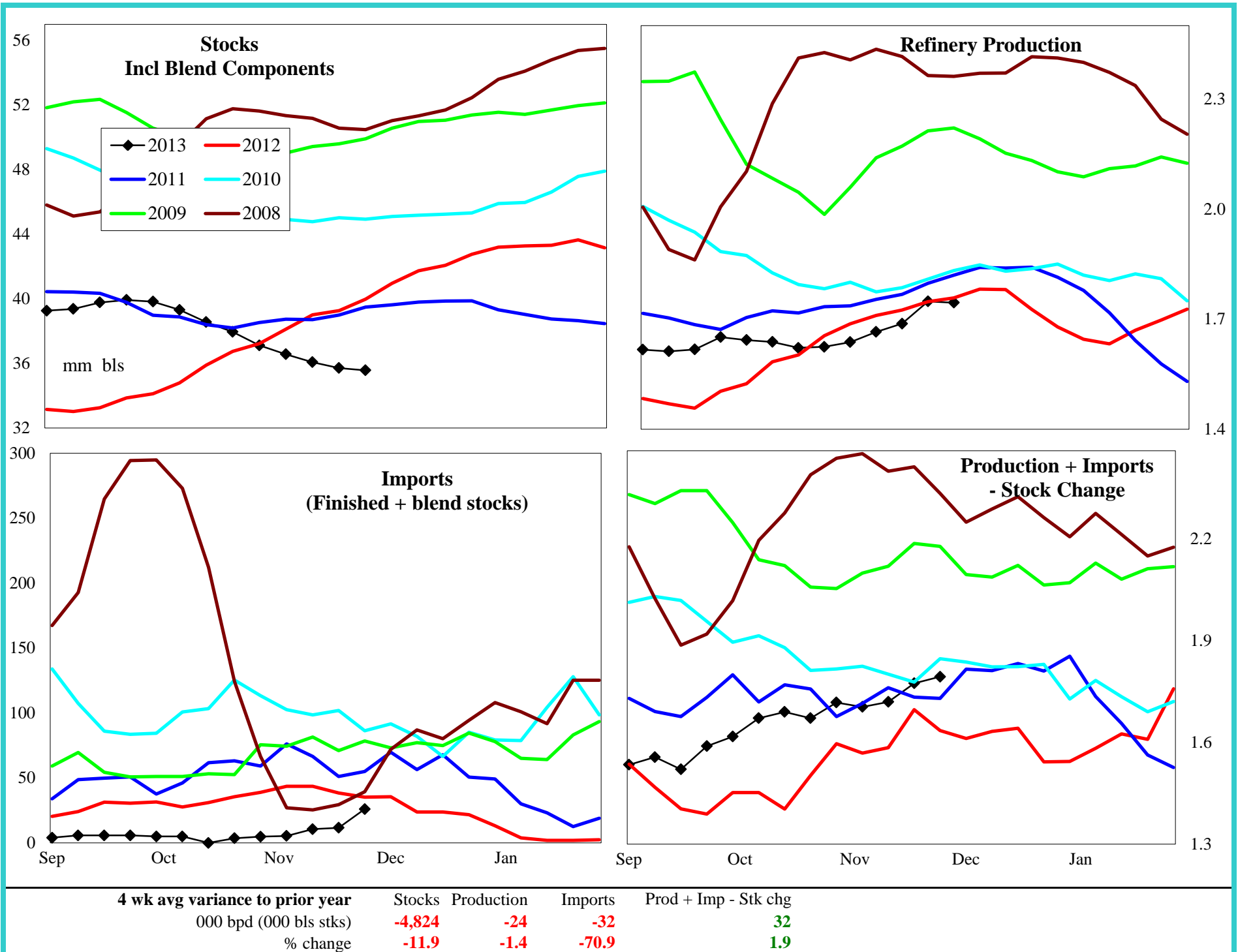
-0.6

-0.6

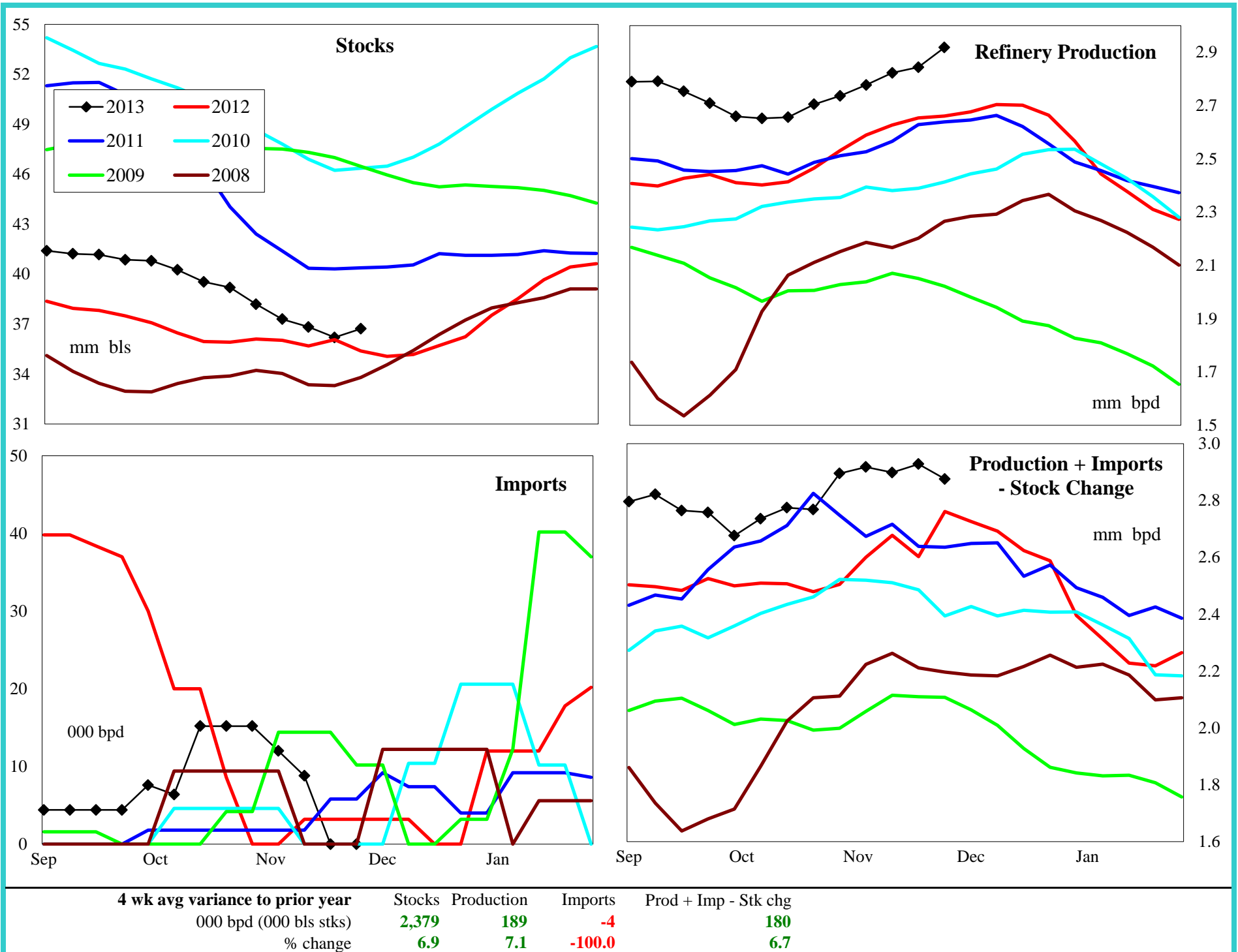
#DIV/0!

-1.5

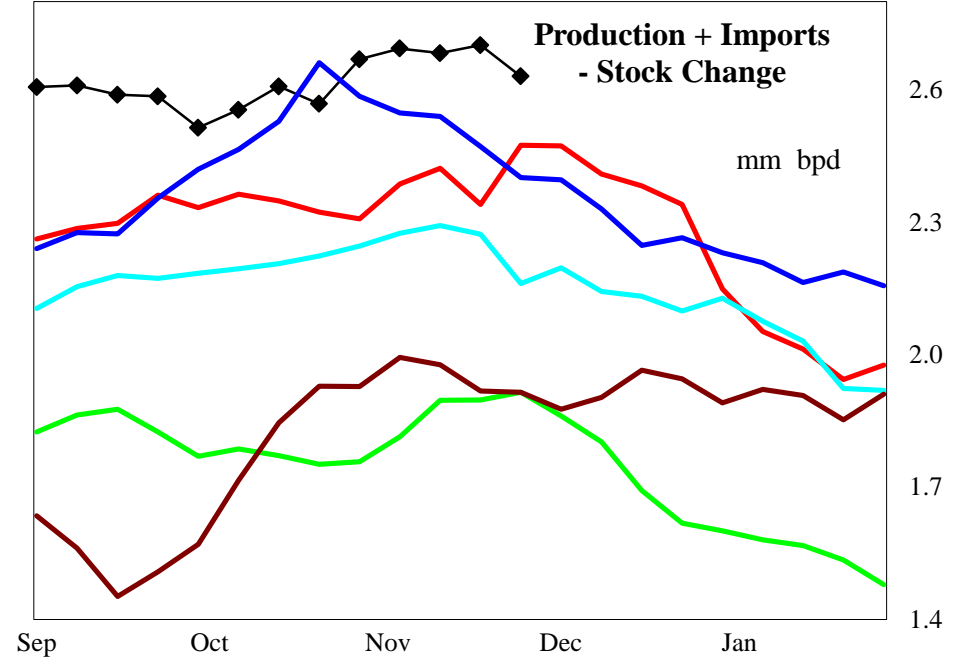
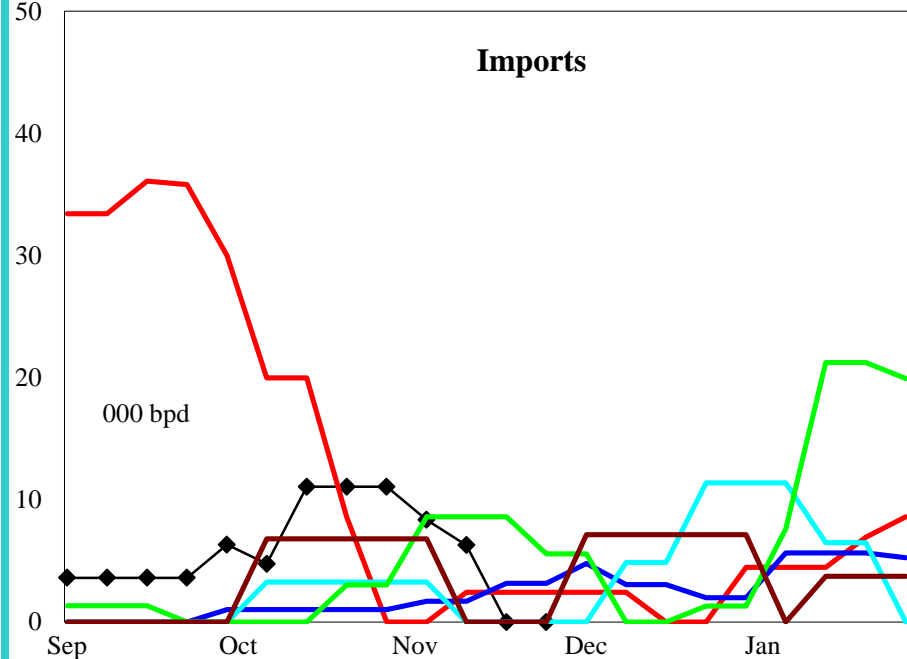
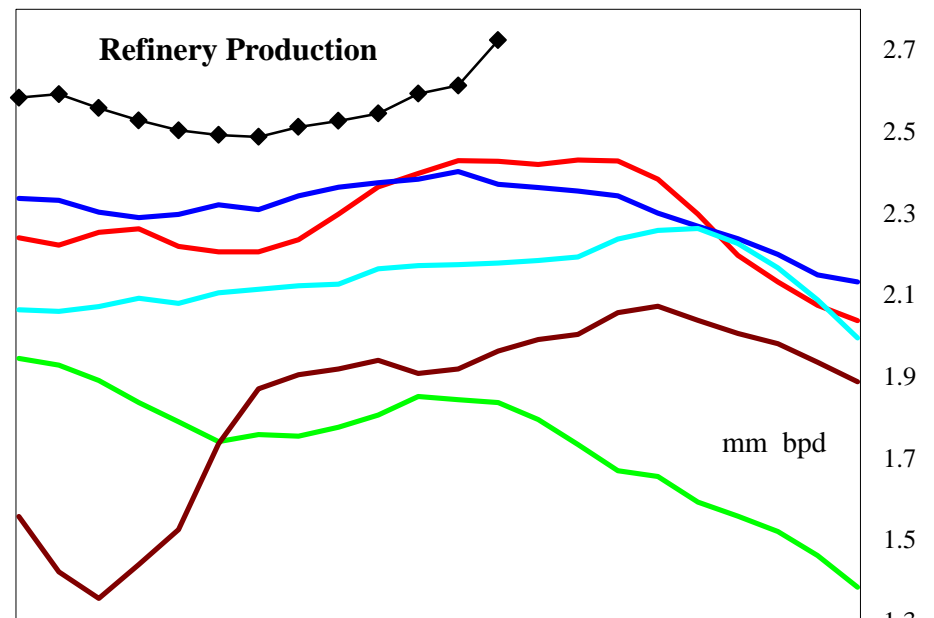
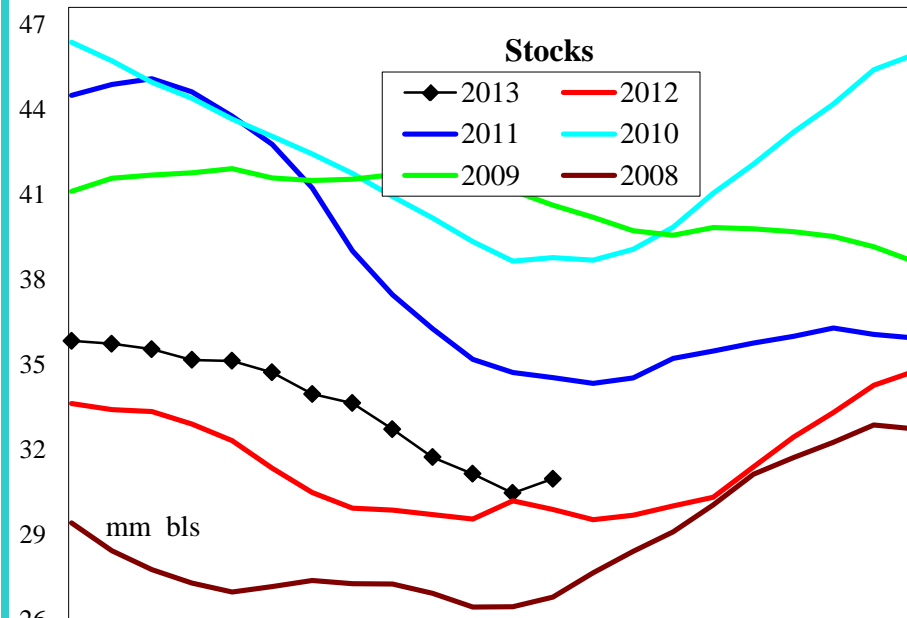
# PADD 3 Conventional Gasoline Supply



# PADD 3 Distillate Supply



# PADD 3 Low Sulfur Distillate Supply



4 wk avg variance to prior year

000 bpd (000 bbls stks)

% change

Stocks

1,677

5.6

Production

182

7.5

Imports

-3

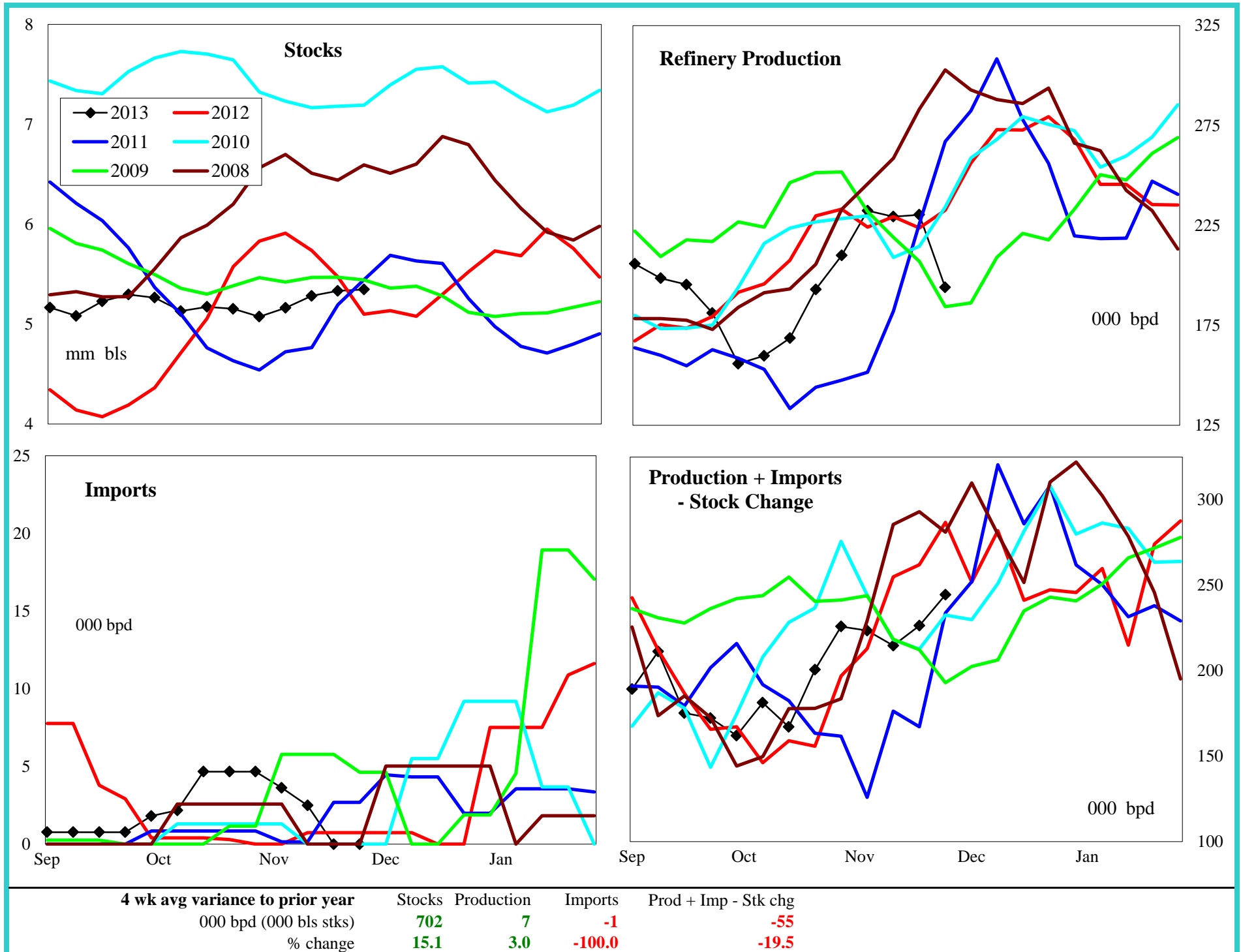
-100.0

Prod + Imp - Stk chg

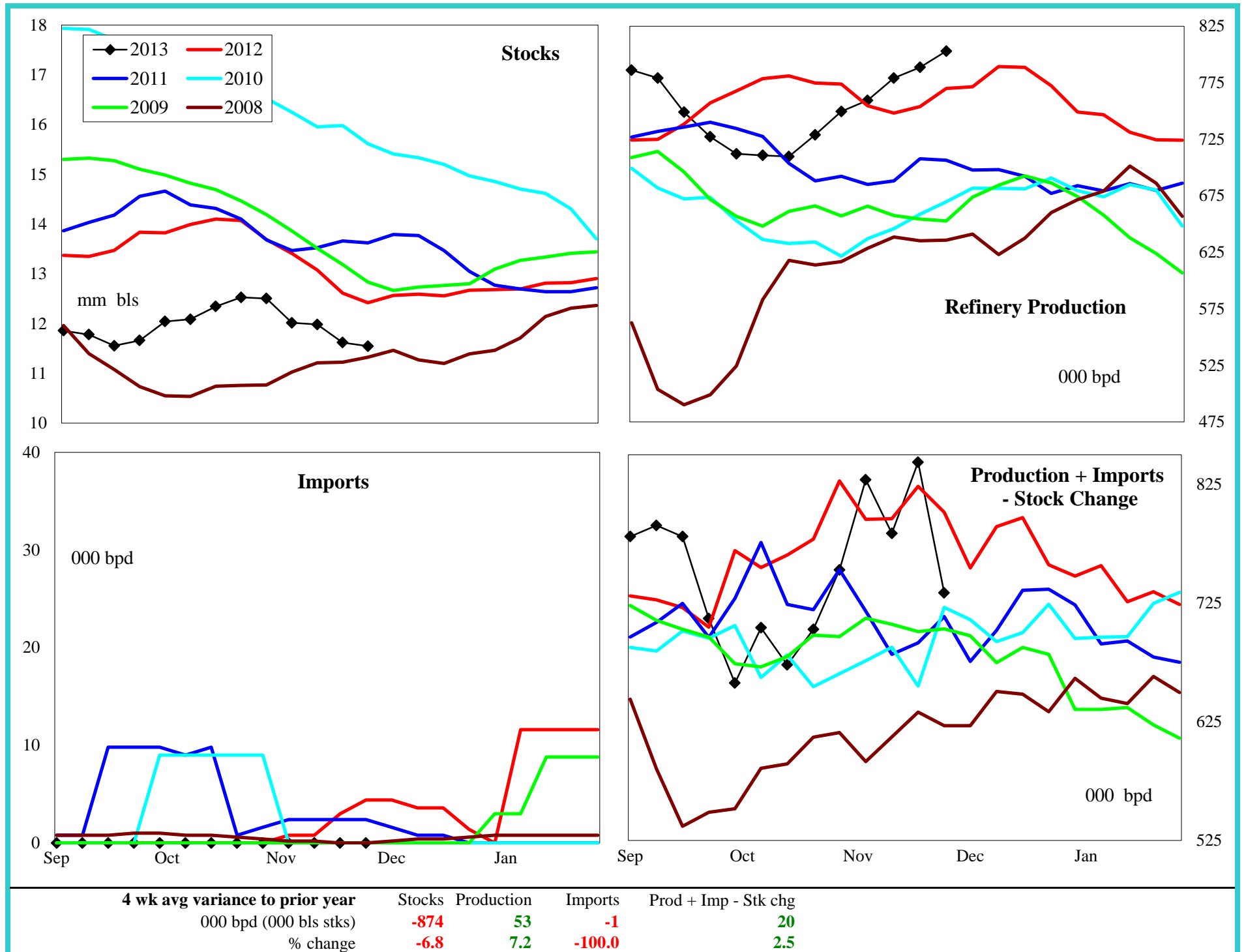
235

9.8

# PADD 3 High Sulfur Distillate Supply

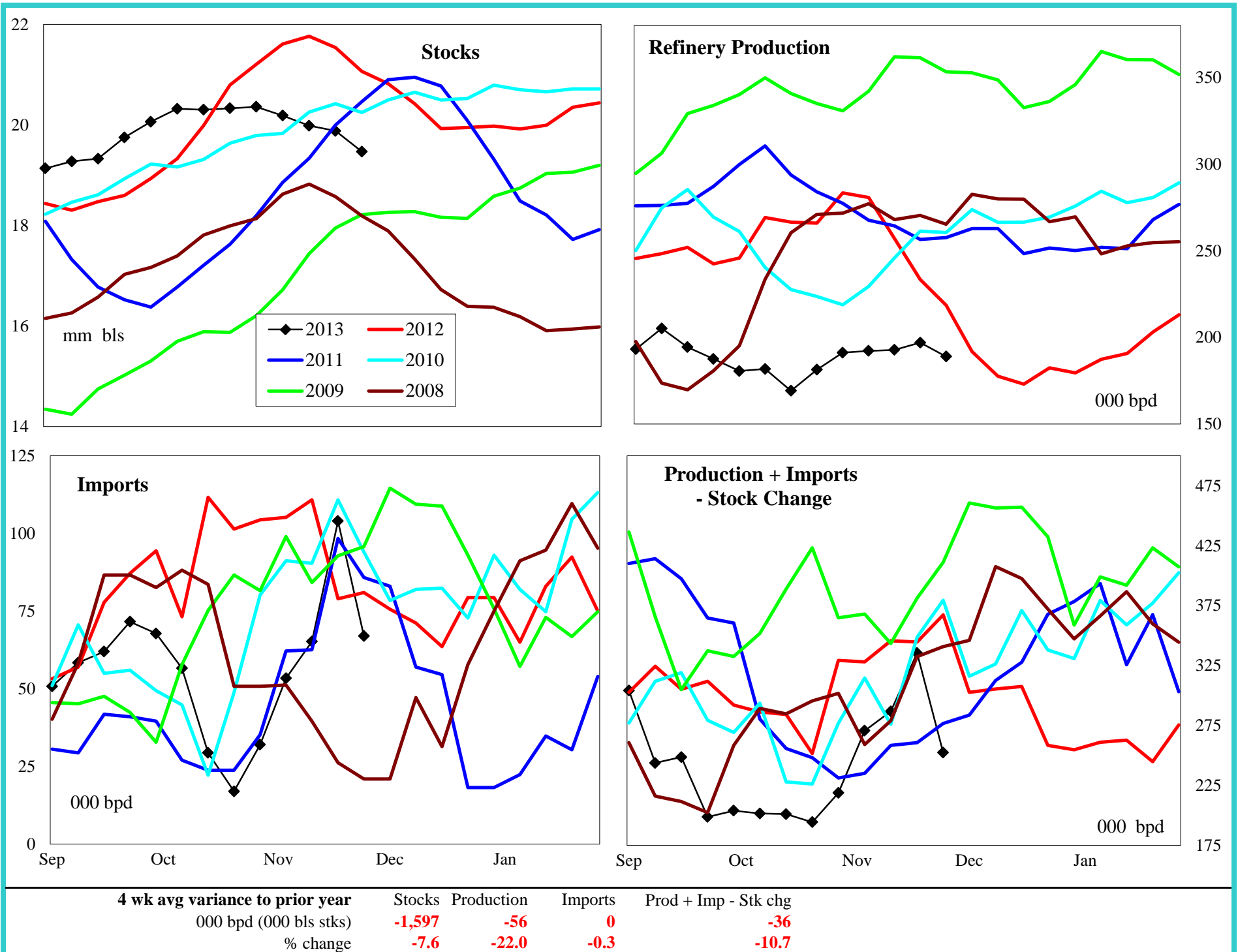


## PADD 3 Jet Fuel Supply

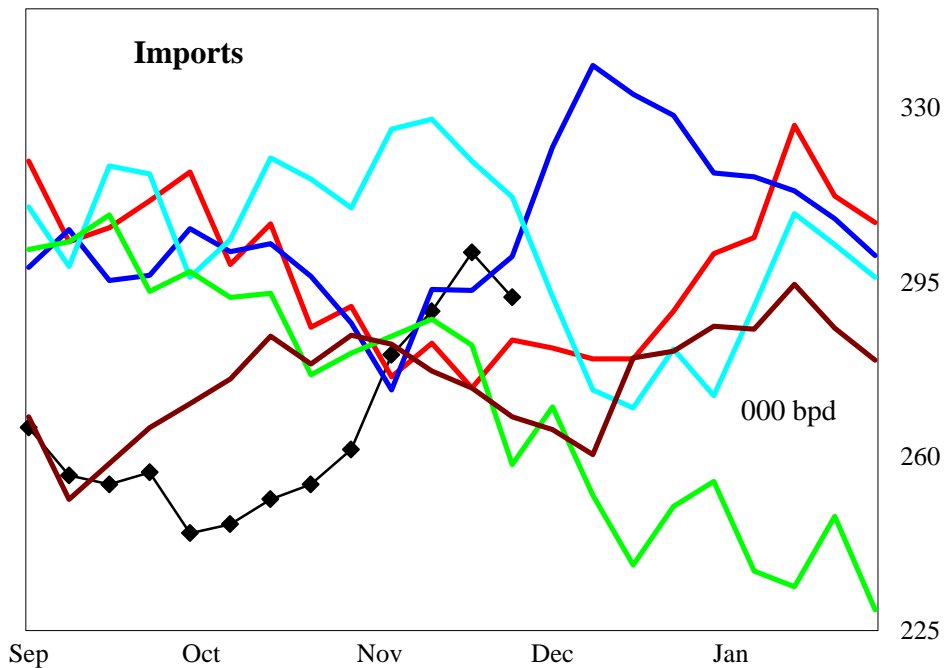
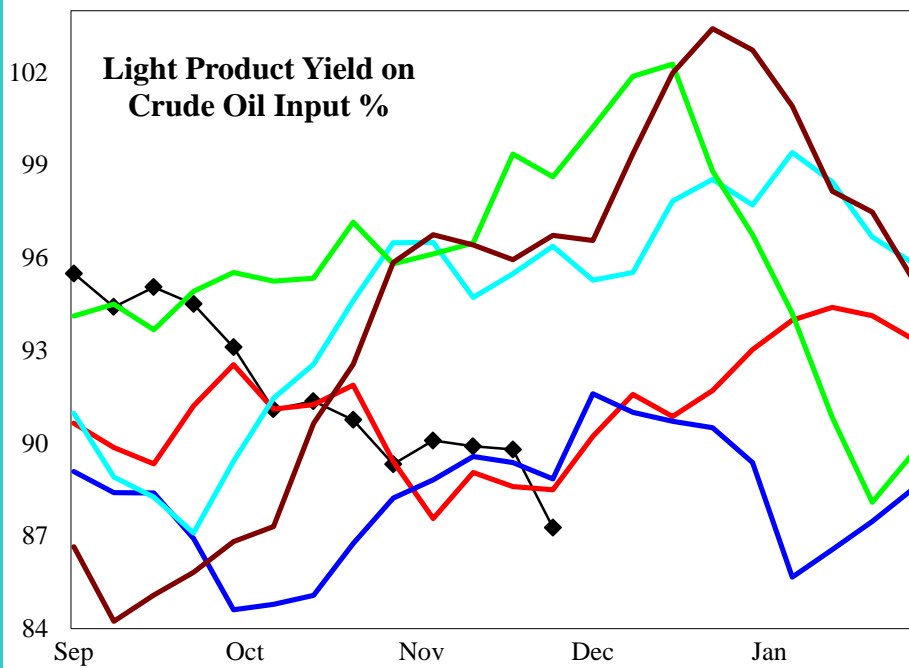
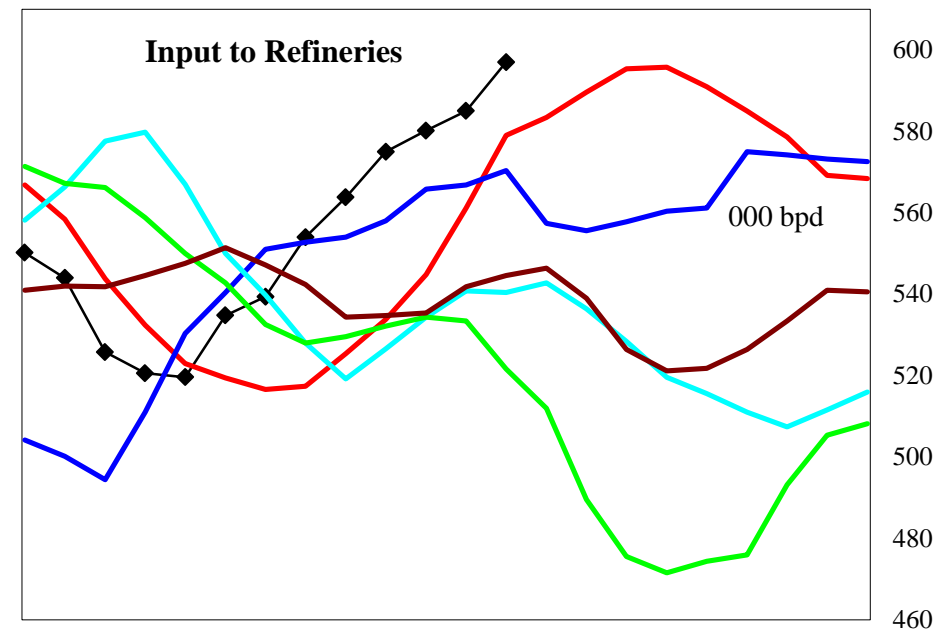
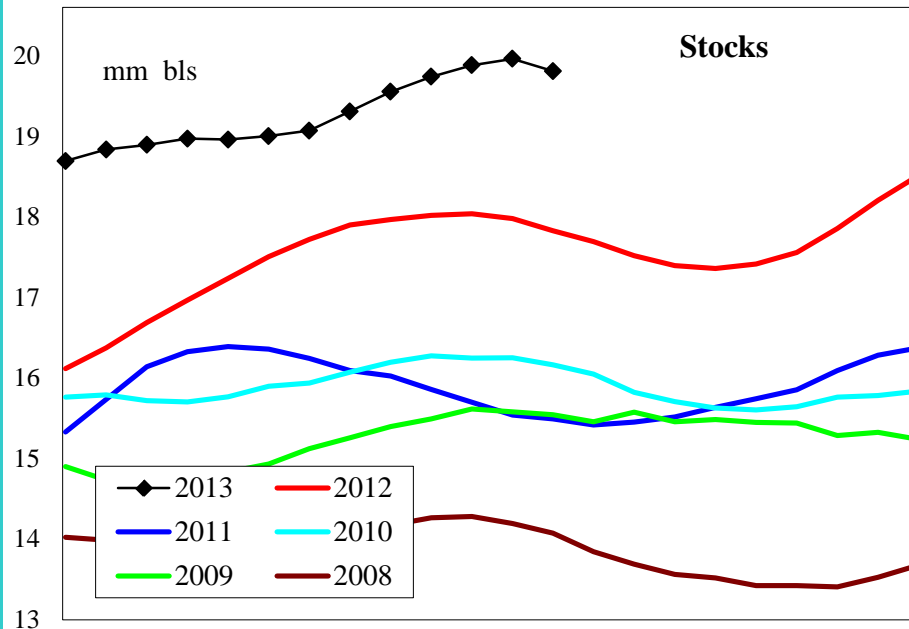




# PADD 3 Residual Fuel Oil Supply



# PADD 4 Crude Oil Supply and Refining



4 wk avg variance to prior year

000 bpd (000 bls stks)

% change

Stocks

1,980

10.9

Input

30

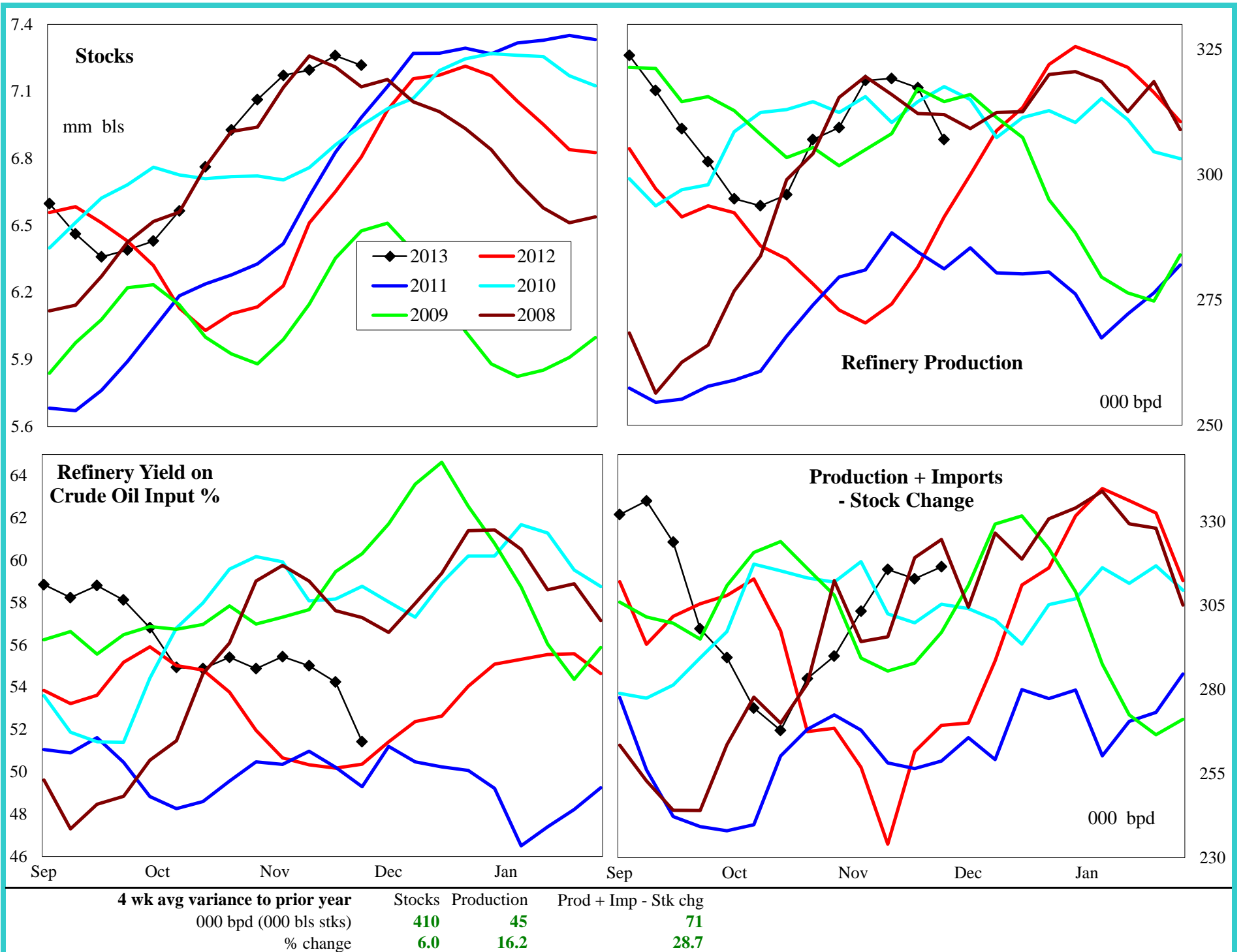
5.3

Imports

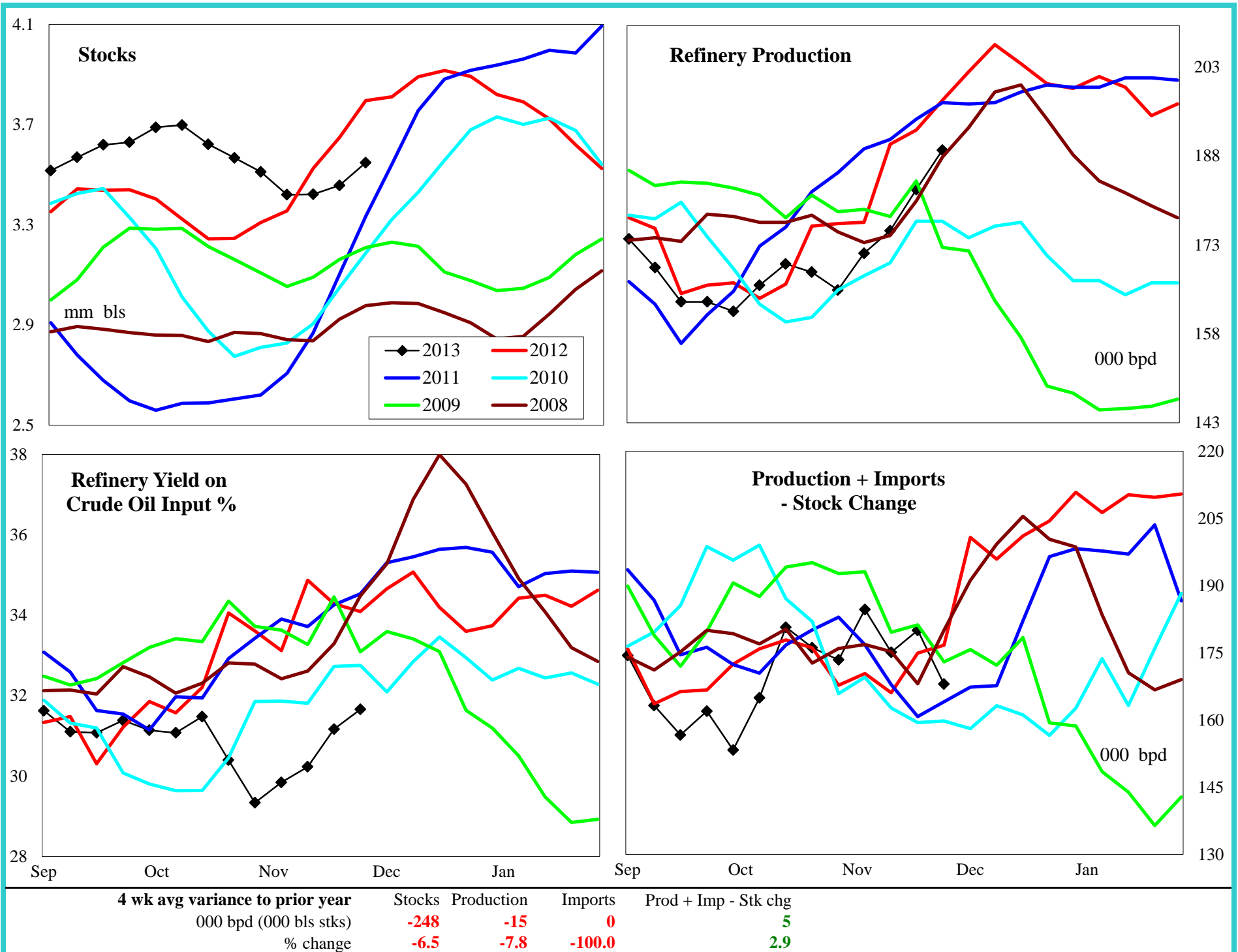
15

5.5

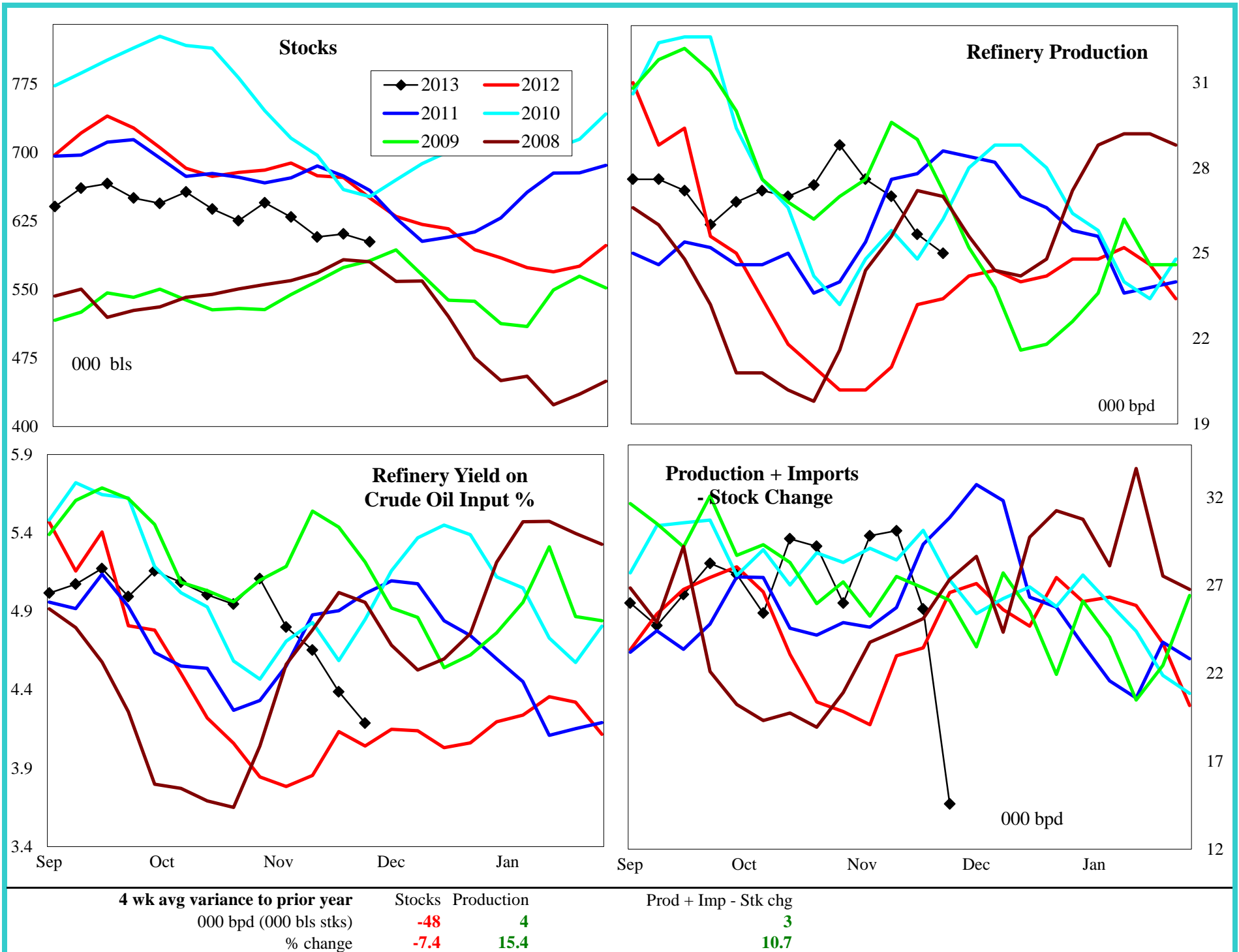
# PADD 4 Gasoline Supply



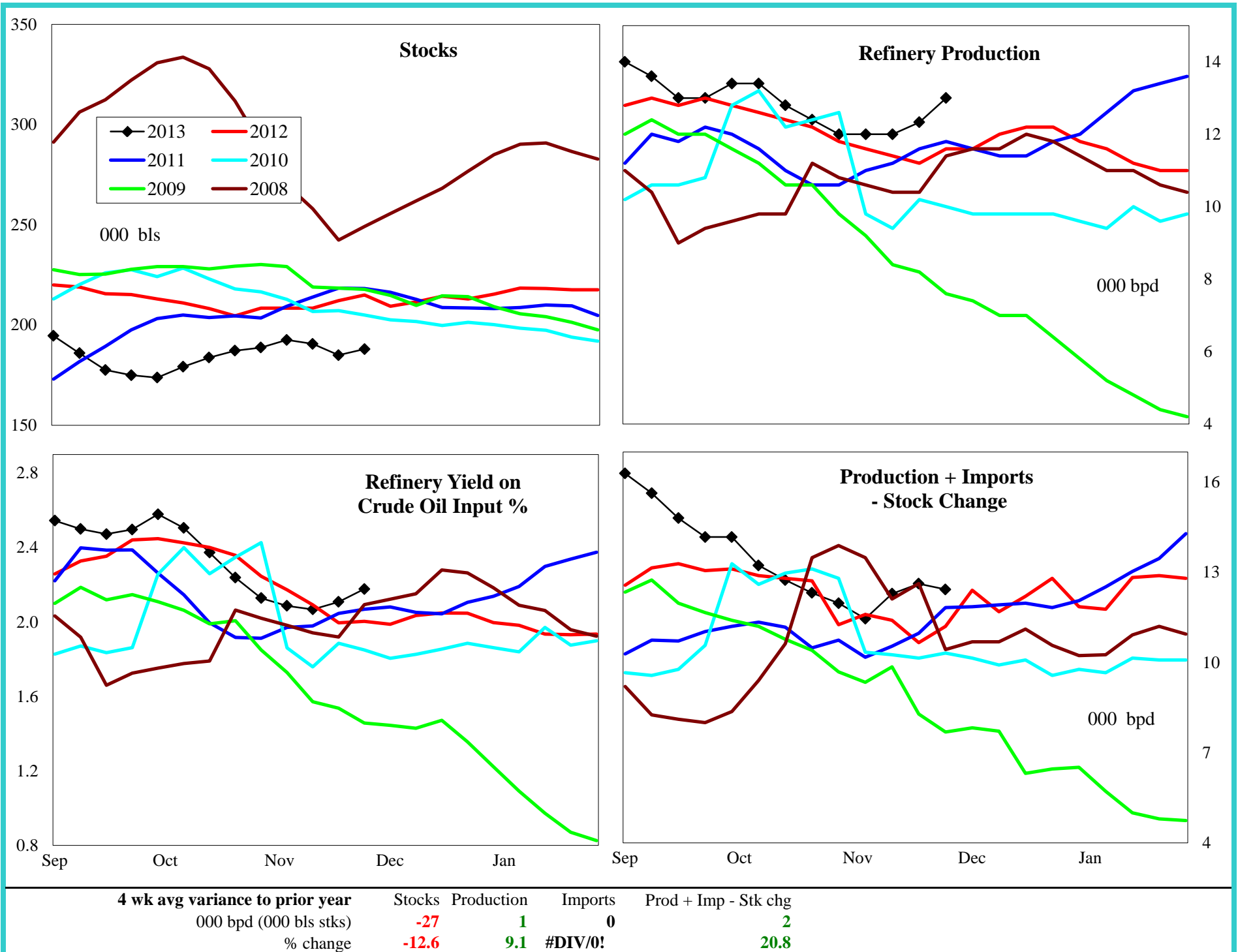
## PADD 4 Distillate Supply



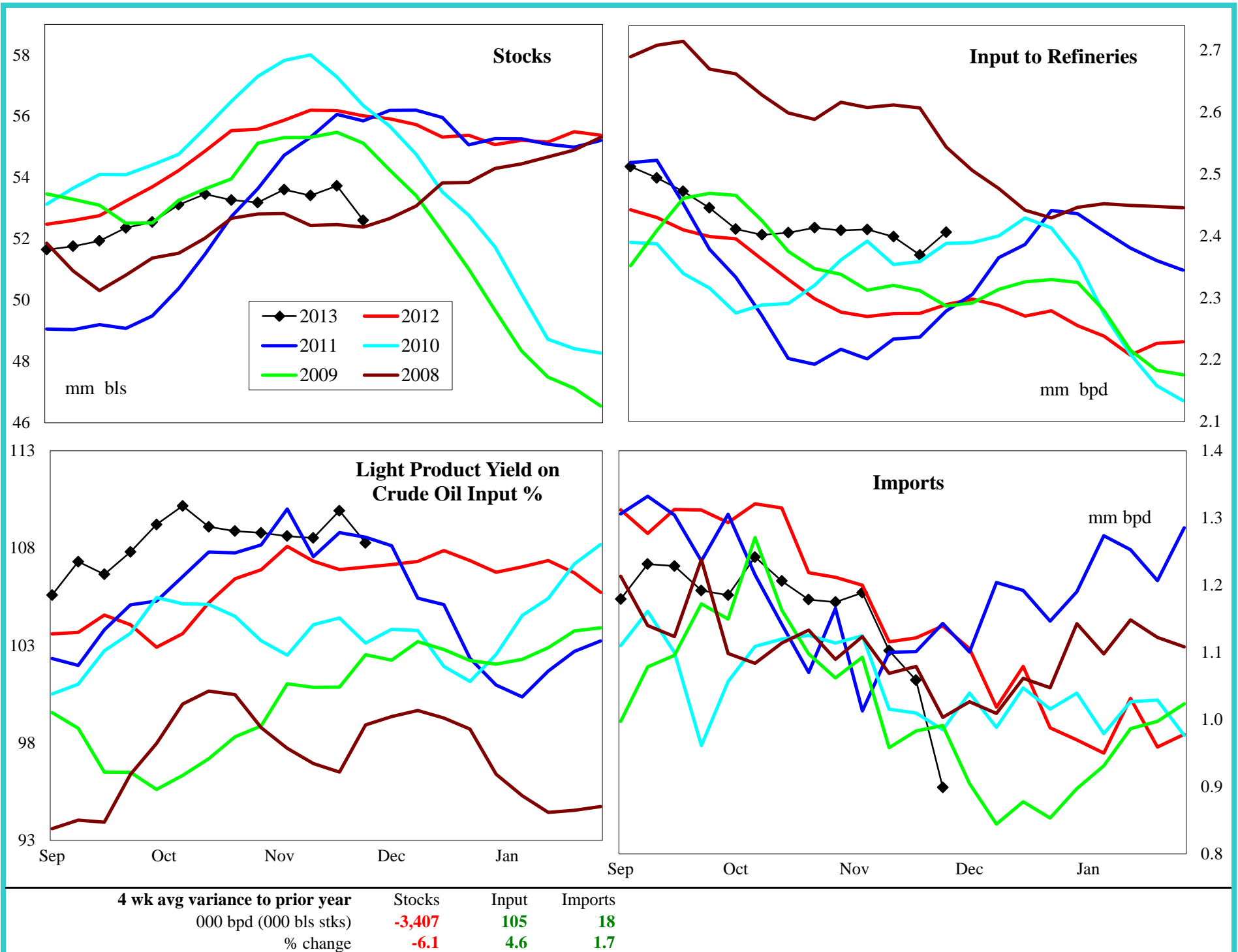
## PADD 4 Jet Fuel Supply



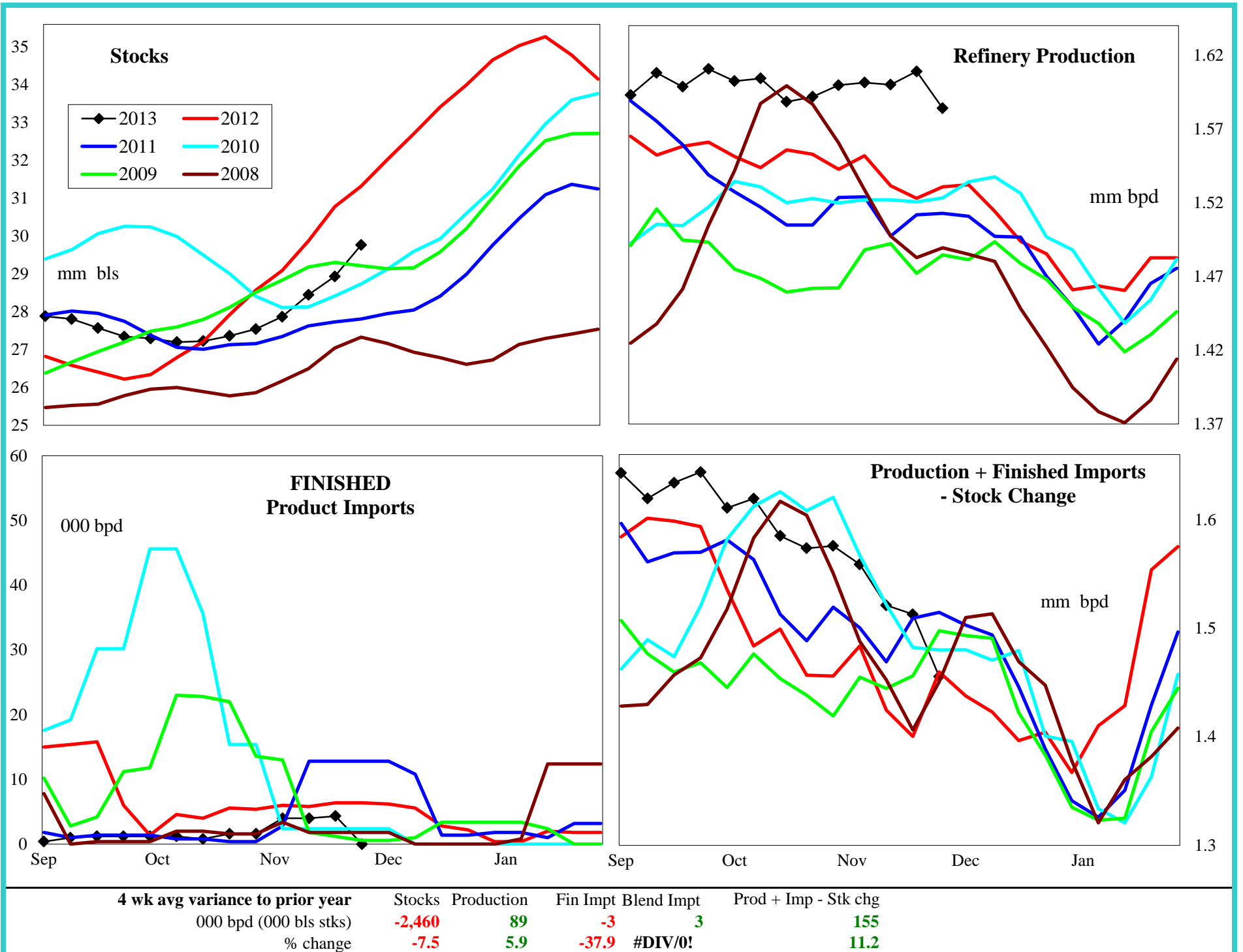
# PADD 4 Residual Fuel Oil Supply



# PADD 5 Crude Oil Supply and Refining

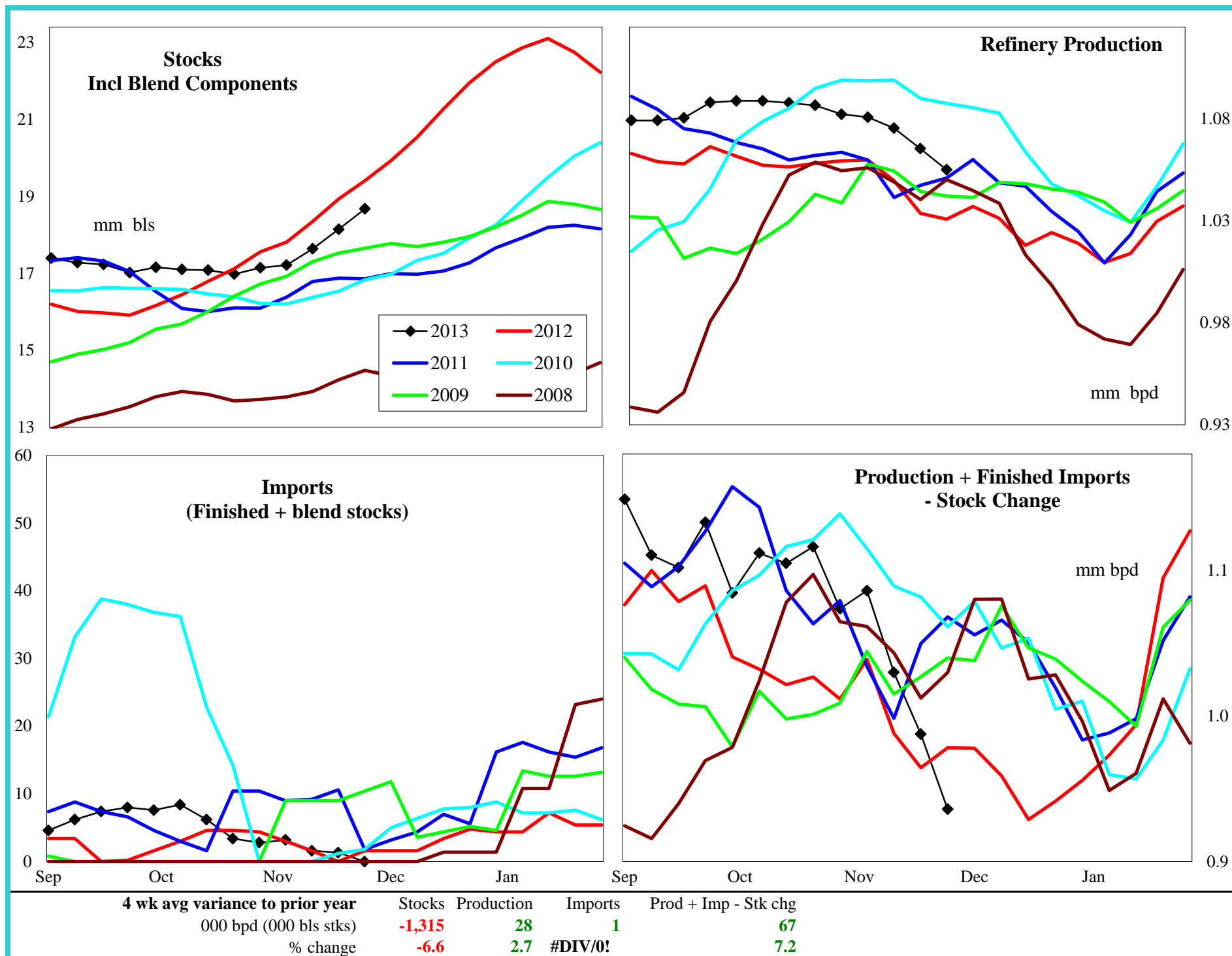


# PADD 5 Gasoline Supply

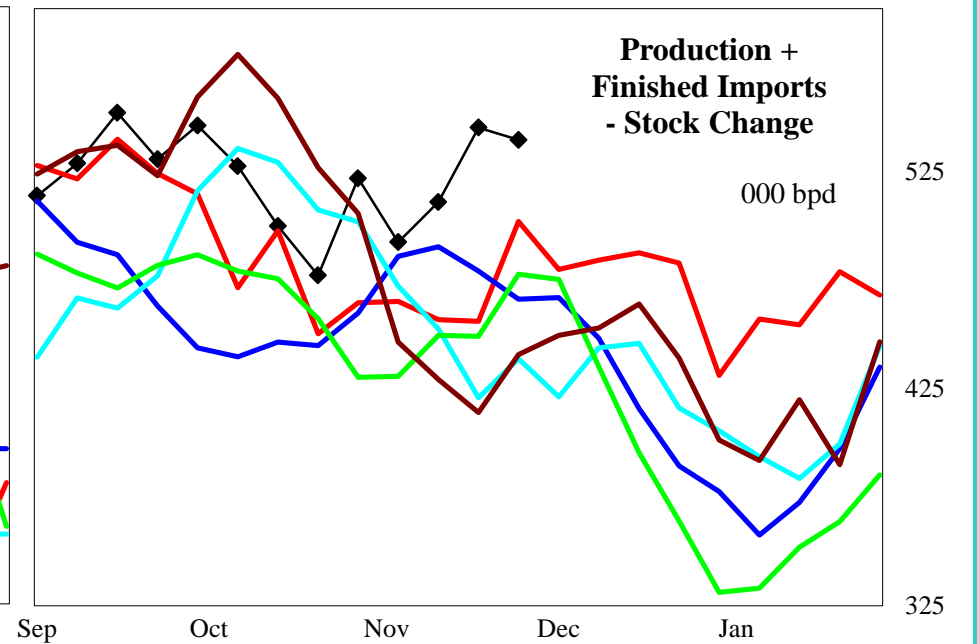
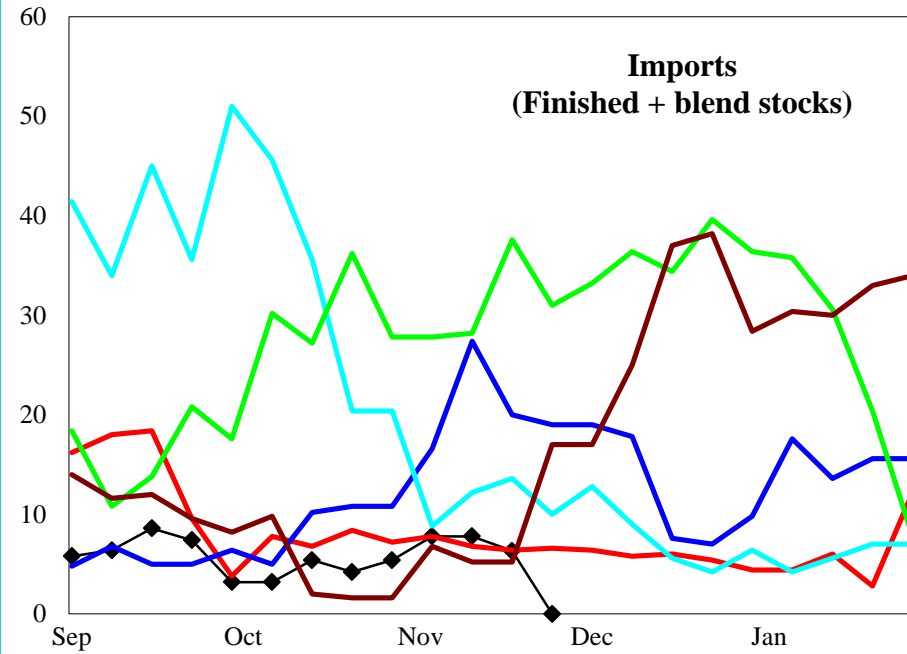
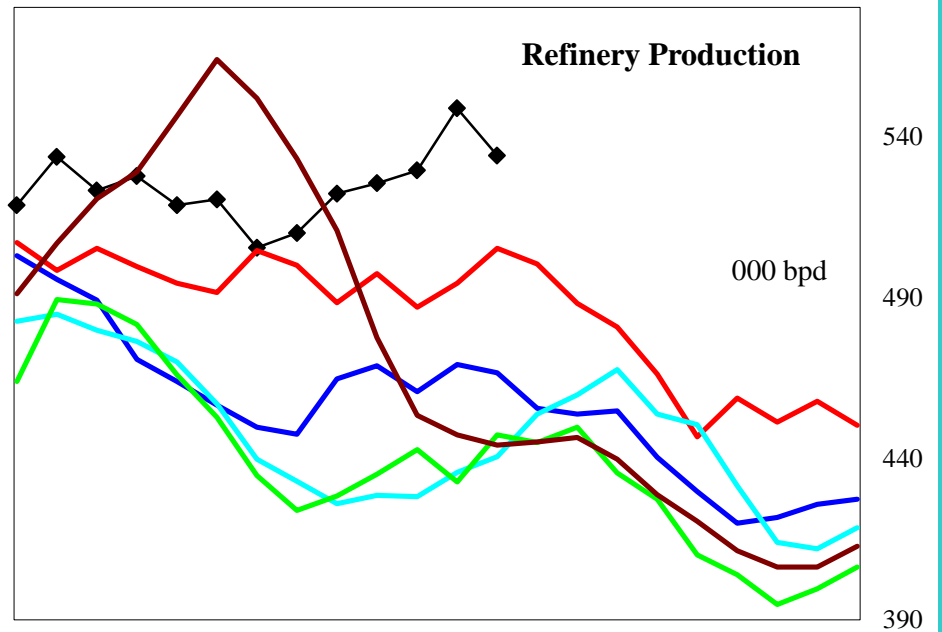
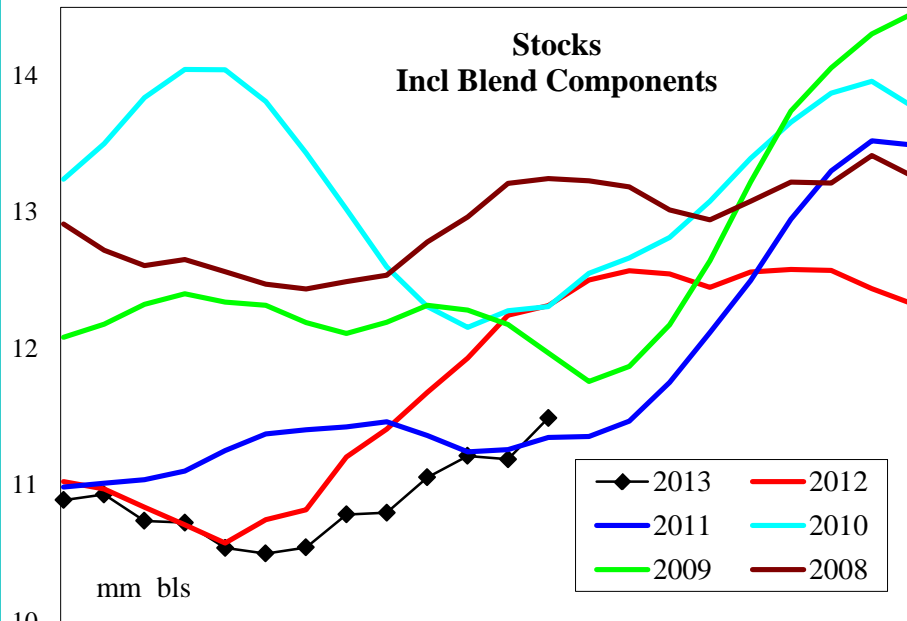




# PADD 5 Reformulated Gasoline Supply



# PADD 5 Conventional Gasoline Supply



**4 wk avg variance to prior year**

000 bpd (000 bls stks)

% change

Stocks

-1,145

-9.1

Production

61

12.7

Imports

-1

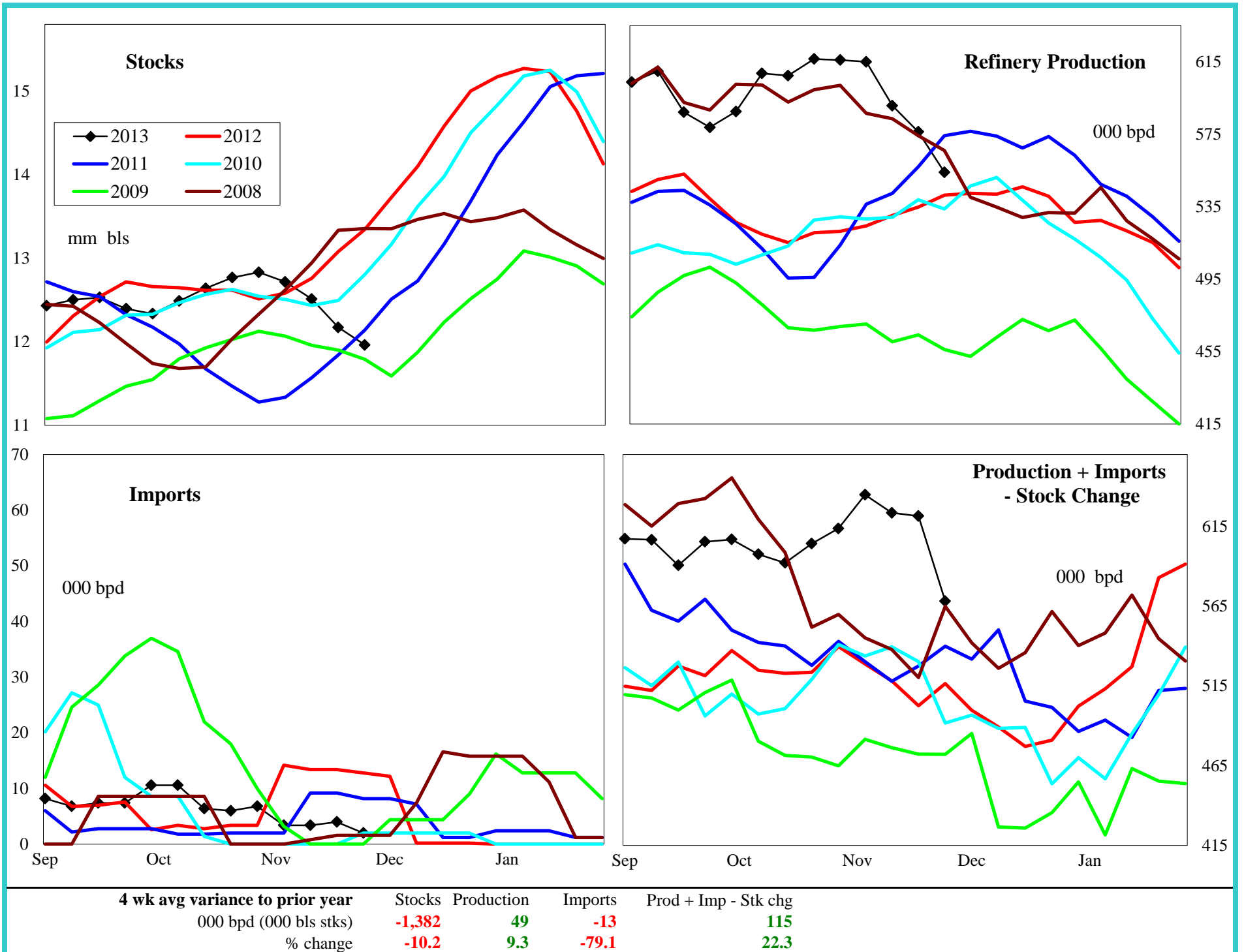
-17.2

Prod + Imp - Stk chg

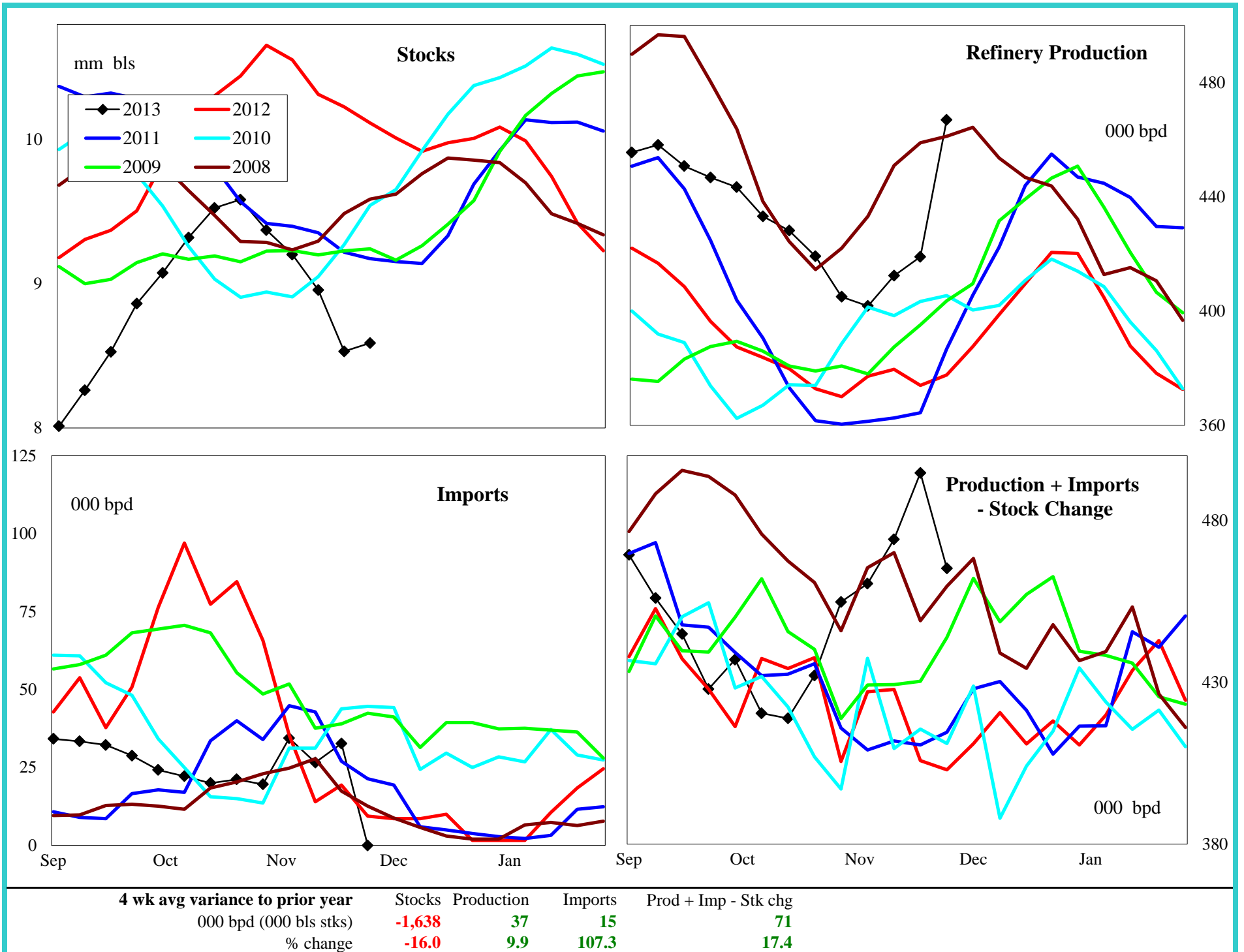
88

19.7

# PADD 5 Distillate Supply



## PADD 5 Jet Fuel Supply



# PADD 5 Residual Fuel Oil Supply

