

#### WEEKLY PETROLEUM SUPPLY-DEMAND TRENDS

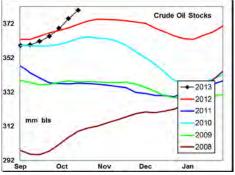
A Fundamental Petroleum Trends Weekly Report

Lehi German Tel: 816.505.0980 www.fundamentalpetroleumtrends.com Wednesday, October 23, 2013

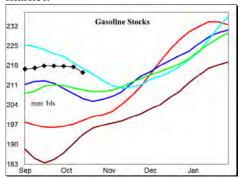


#### Major Fundamental Trends<sup>1</sup>

Crude oil stocks have climbed +24 million barrels during the last 5-wks, driving stock levels to record highs for the fall/winter quarters. Historically, refiners reduced imports during maintenance periods, thus limiting stock builds. The increase in dependence on domestic supplies results in stock builds during refinery maintenance periods as producers do not reduce output. With maintenance ongoing for the next 6-wks, stock levels are likely to become very burdensome.

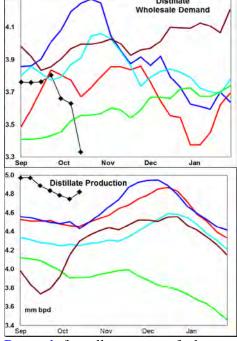


The East and Gulf Coast regional gasoline markets remain extremely over supplied, based on stock levels. Concurrently, high production on the West Coast is burdening that regional market.



Wholesale distillate demand has declined to record low levels; leading to a nearly -5 million barrel lower stock draw during the last month compared to an average of the prior 2-yrs. Supplies exceed year ago levels by over +350,000 bpd, as refiners

maximize output on favorable refining economics for distillates produced from domestic crude oil supplies.



Demand for all transport fuels was lower last week, seeing a combined -0.7 million bpd decrease. Wholesale demand, measured over the last four weeks compared to a year ago: gasoline increased +2.3%; distillate was -3.9% lower; jet fuel was -9.7% lower, and residual decreased -54%.

Stocks forward coverage: Gasoline demand coverage decreased on a -1.8 million barrel stock draw, partially offset by lower demand. Coverage ended the week at a level which matched 5-yr highs.

Distillate coverage increased on a +1.5 million barrel stock build. Coverage levels were slightly above last year's near record low.

Jet fuel coverage increased on a +0.2 million barrel stock build and extremely low demand. Coverage levels were near the 3-yr mid range.

Residual fuel oil coverage remains exceptionally high on very low demand.

Refinery utilization rates were unchanged with last week's runs marginally above a year ago. During the latest 4-wk period crude oil input

was +0.2 million bpd above a year ago.

Gasoline yield % on crude oil runs fell on a -205,000 bpd decrease in output compared to the +2,000 bpd rise in crude oil runs. Yield % on crude oil runs ended the week at a level slightly above last years' record low.

Distillate yield % on crude oil runs increased last week, on a +26,000 bpd rise in output compared to little change in crude oil thru put. The yield % on crude oil runs remains well above the 5-yr range.

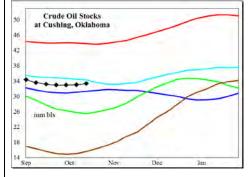
Jet fuel yield % on crude oil runs jumped on a +44,000 bpd rise in output, compared to little change in crude oil runs. The yield % level matched historic highs for the week.

Petroleum Imports/Exports: Imports of crude oil and gasoline each declined last week, with slight increases for middle distillates.

During the latest 4-wk period crude oil *imports* were -0.4 million bpd below last year; distillate imports were +23,000 bpd higher; finished gasoline imports increased +9,000 bpd, gasoline blend stock imports were -3,000 bpd lower; jet fuel imports decreased -43,000 bpd, while residual fuel oil imports were -100,000 bpd lower.

The latest 4-wk *export* estimate saw a +24,000 bpd increase in gasoline, a +341,000 bpd jump in distillate and +46,000 bpd rise in jet fuel compared to a year ago.

Crude Oil stocks increased +5.2 million barrels last week, with Gulf Region stocks at fresh record high levels for the fall/winter season. Cushing stocks have largely been relocated to Gulf storage.



Source is latest EIA Weekly Statistics



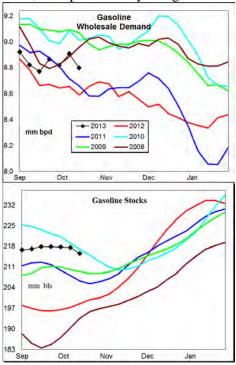
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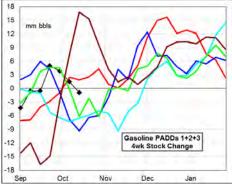
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#### **Product Supply-Demand Trends**

Gasoline wholesale demand fell -280,000 bpd last week. The latest 4-wk average demand was +201,000 bpd above a year ago. Supply fell -351,000 bpd on lower production and imports. Supply for the latest 4-wk period was +225,000 bpd above a year ago.



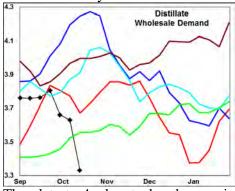
Stocks fell -1.8 million barrels last week, ending at a level that matched 5-yr highs. The latest 4-wk stock change in markets East of the Rockies was a -0.9 million barrel draw, to a level above the 3-yr mid range.



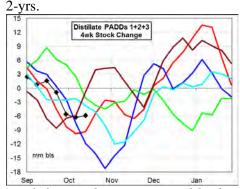
Stock levels match 5-yr highs on the East and Gulf Coasts and the Rockies. Stock levels in the Midwest and West Coast are very ample though not at record highs. The market remains over supplied, as refiners maintain high run rates to benefit from

favorable distillate crack spreads.

Distillate wholesale demand declined - 21,000 bpd last week, falling to a record low level. The latest 4-wk average demand was -150,000 bpd below last year. Supply increased +76,000 bpd last week on higher production and imports. The latest 4-wk average supply was +356,000 bpd above last year. Stocks increased +1.5 million barrels on the week, to a level +7% above last year.



The latest 4-wk stock change in markets East of the Rockies was a -5.8 million barrel draw, nearly -5 million barrels less than the average of the last

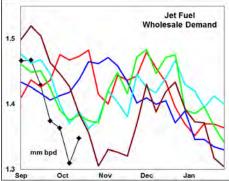


Look for production to trend higher over the next quarter as refiners complete fall maintenance. Stocks should also see builds ahead of peak winter heating. Significant fuel switching in the Northeast to natural gas will reduce the impact of winter heating on distillate supplies.

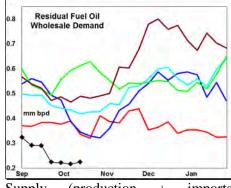
Jet Fuel wholesale demand decreased - 21,000 bpd on the week, to a level below the 5-yr range. The latest 4-wk average demand was -147,000 bpd below last year.

Supplies increased +46,000 bpd on the week, driven by higher production and imports. Production was above the last 2-yrs. Supply for the latest 4-wk period was -54,000 bpd below a year ago. Stocks increased +0.2 million barrels last week, with the level -2.1 million barrels below last year.

Look for a rebound in demand, ahead of the start of holiday travel season; which should constrain stock builds.



Residual fuel oil demand increased +15,000 bpd last week. Demand for the latest 4-wk period was -195,000 bpd below a year ago.



Supply (production + imports) decreased -56,000 bpd on lower imports. Production remains -16% below a year ago. Stock levels ended the week at a level below the last 5-yrs.

Stock levels in the Gulf region remain above the historic range, while the midwest and West Coast saw levels at the historic average. Production and imports were each sharply below the 5-yr range.



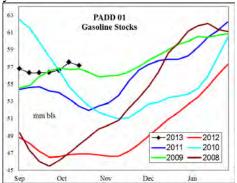
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#### **PADD Supply Trends**

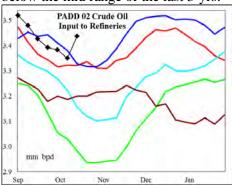
PADD 1 refinery crude oil runs decreased -33,000 bpd last week; with the latest 4-wk average -7% below last year.



Gasoline supply decreased -189,000 bpd on the week. Stocks climbed +0.1 million barrels on the week, at a level above the 5-yr range.

Distillate supply decreased -12,000 bpd last week, with the 4-wk average +13,000 bpd above a year ago. Stocks increased +1.5 million barrels on the week, to a level +7% above last year.

Jet fuel stocks fell -0.7 million barrels on the week, with the level below the mid range of the last 3-yrs.



PADD 2 crude oil refinery runs increased +84,000 bpd last week, with the latest 4-wk average +39,000 bpd above last year. Crude oil stocks increased +0.2 including a +0.4 million barrel build in Cushing. Stocks ended the week -24% below a year ago in Cushing.

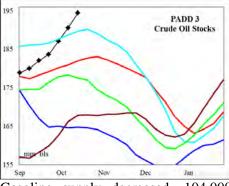
Gasoline production increased +48,000 bpd last week to a level at the historic mid range. Stocks increased +0.2 million barrels on the week, to a level above four of the last 5-yrs.

Distillate supply increased +24,000

bpd last week, to a level sharply above the 5-yr range. Stocks increased +0.1 million barrels to a level above the last 2-yrs.

Jet fuel production increased +27,000 bpd with the level at a 5-yr high for the week. Stock levels ended the week -26% below a year ago and well below the 5-yr range.

PADD 3 refinery runs decreased -18,000 bpd last week as fall maintenance continued. During the latest 4-wk period, average runs were +0.2 million bpd above a year ago. Crude oil stocks increased +5.8 million barrels last week, to a new record high level.



Gasoline supply decreased -104,000 bpd on the week, with the latest 4-wk average +95,000 bpd above a year ago. Stocks fell -2.2 million barrels on the week, a level that matched 5-yr highs for the period.

Distillate supply increased +16,000 bpd on the week, with the latest 4-wk average supply +250,000 bpd above last year. Stocks increased +0.4 million barrels last week, to a level +16% above a year ago.

Jet fuel production increased +47,000 bpd on the week, to a level near the average of the last 2-yrs. Stocks jumped +1.1 million barrels, to a level -4% below last year.

Residual fuel supply declined - 61,000 bpd, while stocks decreased - 0.3 million barrels The stock level ended the week equal to record highs for the period.

PADD 4 refinery crude runs increased +1,000 bpd on the week, to a level at the low end of the historic range.

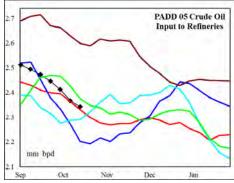
Crude oil stock levels were +7% above the previous record high.

Gasoline production decreased -40,000 bpd on the week, to a level comparable with the last 2-yrs. Stocks increased +0.1 million barrels on the week, to a level that matched historic highs for the period.

Distillate production decreased - 20,000 bpd on the week, to a level that matched 5-yr lows. Stock levels were +19% above the previous record high.

Jet fuel production was a record high, while stock levels remain below the last 3-yrs.

PADD 5 crude oil refinery runs decreased -33,000 bpd on the week to a level equal to the 3-yr mid range. The latest 4-wk run rate was -4,000 bpd below a year ago.



Gasoline supply decreased -11,000 bpd on the week with production matching 5-yr highs. The latest 4-wk average supply was +70,000 bpd above a year ago. Stocks were unchanged last week at a level comparable to the last 2-yrs.

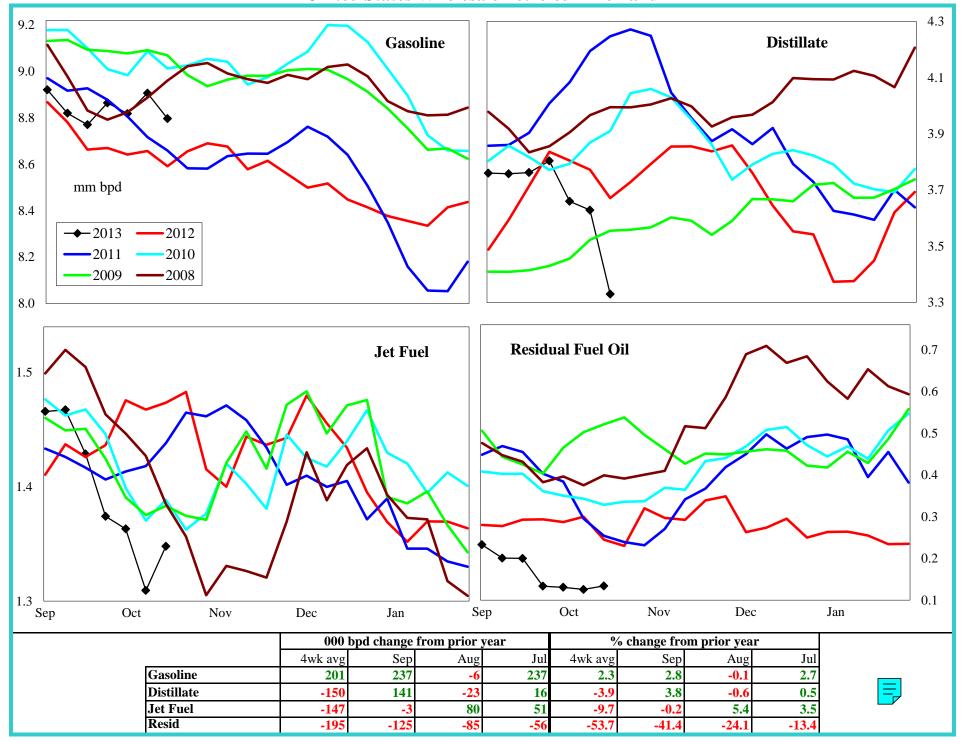
Distillate supply increased +68,000 bpd, to a level above the 5-yr range. The latest 4-wk average supply was +79,000 bpd above last year. Stocks increased +0.4 million barrels to a level matching historic highs for the period.

Jet fuel supply declined -53,000 bpd last week, to a level above the 3-yr mid range. Stocks decreased -0.1 million barrels on the week to a level – equal to the historic mid range.

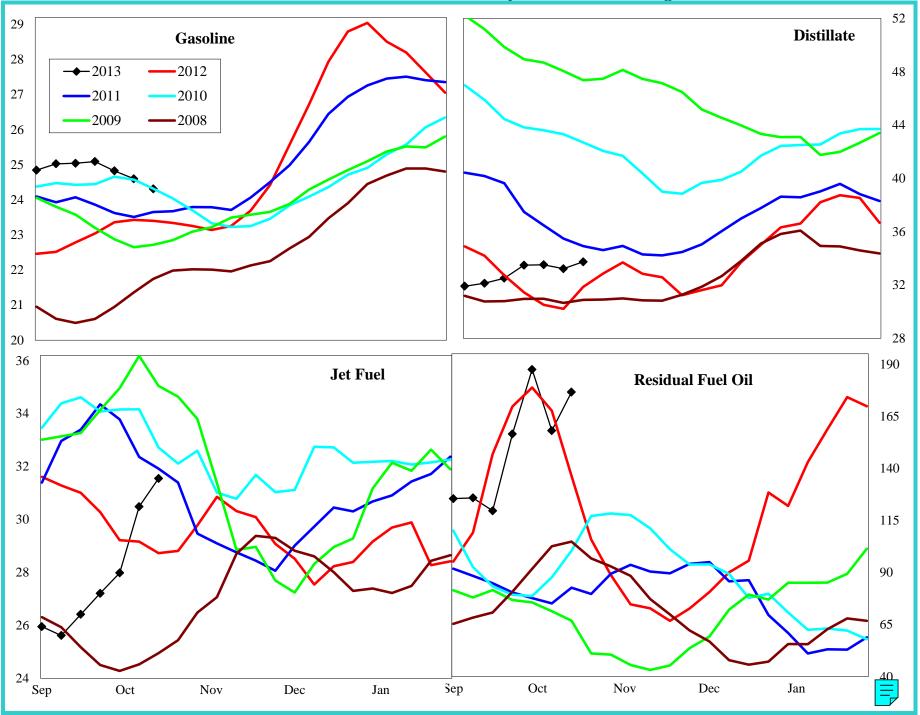
Residual fuel oil production jumped +34,000 bpd last week to a level above the historic range. Stock levels remain near the 3-yr mid range.

FUNDAMENTAL PETROLEUM: Graph Link and Weekly Summary A Fundamental Petroleum Trends Weekly Report October 23, 2013 ehi German Tel: 816.505.0980 www.fundamentalpetroleumtrends.com  Fundamental Wholesale Stocks Days Refinery Utilization							
Fundamental	Wholesale	Stocks Days		Refinery Utilization			_
Trends	Demand	Fwd Coverage		Product Yield %			<u>Imports</u>
Supply/Demand	18-Oct-13	EIA-DOE CHANGE FROM PRIOR WEEK					
Trends	000 bpd	U. S. PADD					
	stocks 000 bls	Total	1	2	3	4	5
Crude Oil	Stocks	5,246	669	207	5,763	22	-1,415
	Imports	-348	113	6	-207	7	-266
	Input	2	-33	84	-18	1	-33
	% Utilization	-0.30					
Gasoline	Stocks	-1,805	98	236	-2,234	143	-48
	Production	-205	-42	48	-104	-40	-11
	Imports	-146	-147	0	0	0	0
	Supplied	-280					
<u>Distillate</u>	Stocks	1,537	415	101	432	155	434
	Production	26	-25	24	0	-20	47
	Imports	50	13	0	16	0	21
	Supplied	-401					
<u>Jet Fuel</u>	Stocks	161	-728	-184	1,130	4	-62
	Production	44	-4	27	47	9	-37
	Imports	2	18	0	0	0	-16
	Supplied	-21					
<u>Residual</u> <u>Fuel Oil</u>	Stocks	-389	-236	-13	-253	-10	124
	Production	30	-4	11	-12	0	34
	Imports	-86	-15	-3	-49	0	-19
	Supplied	15					

#### **United States Wholesale Petroleum Demand**

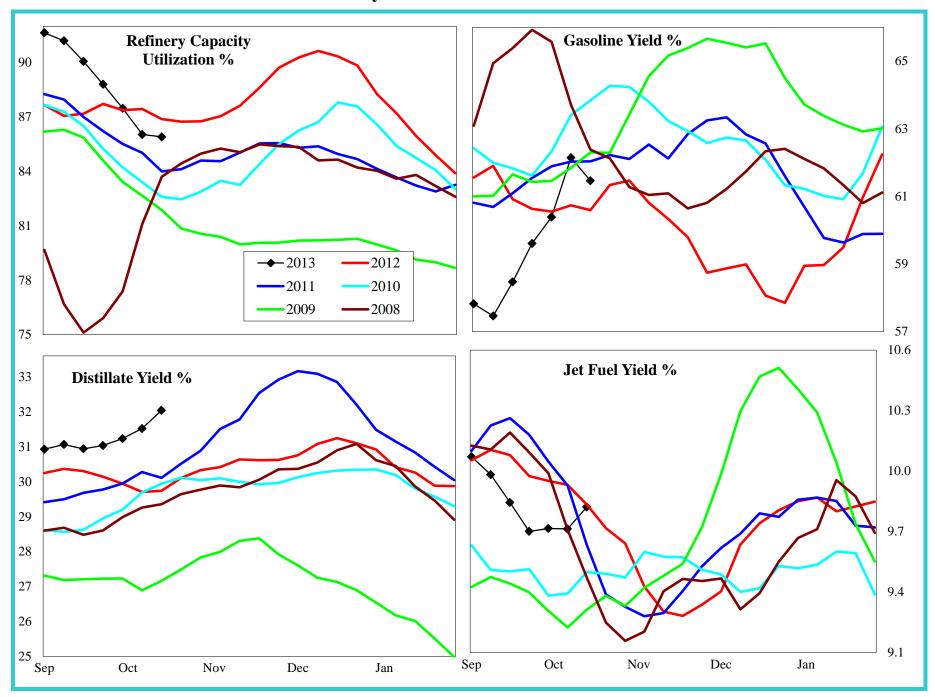


# **United States Product Stocks: Days Forward Coverage**

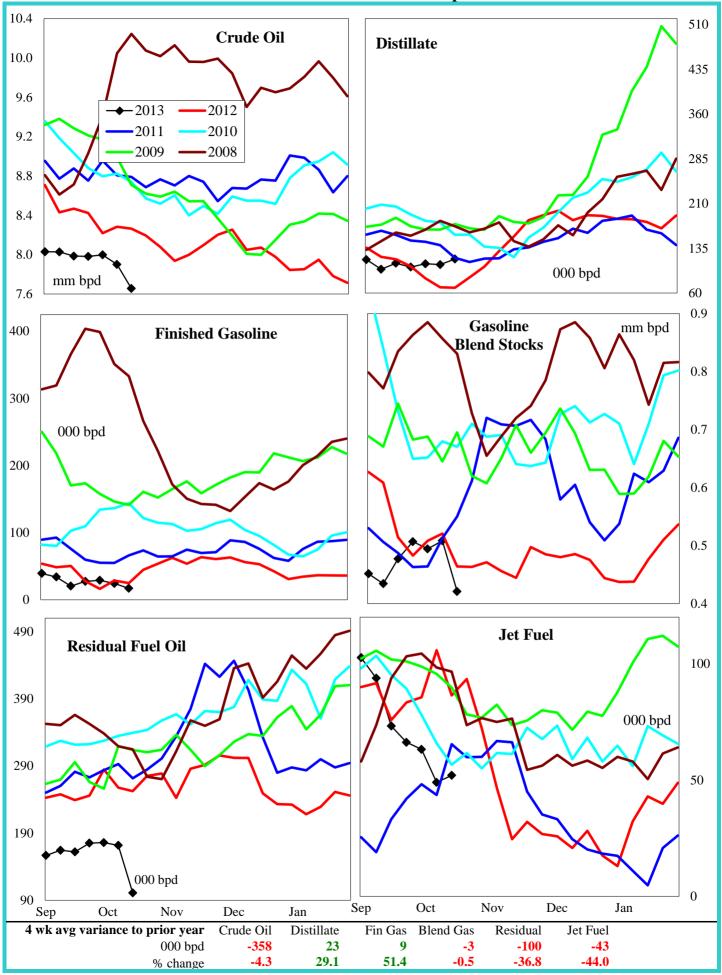


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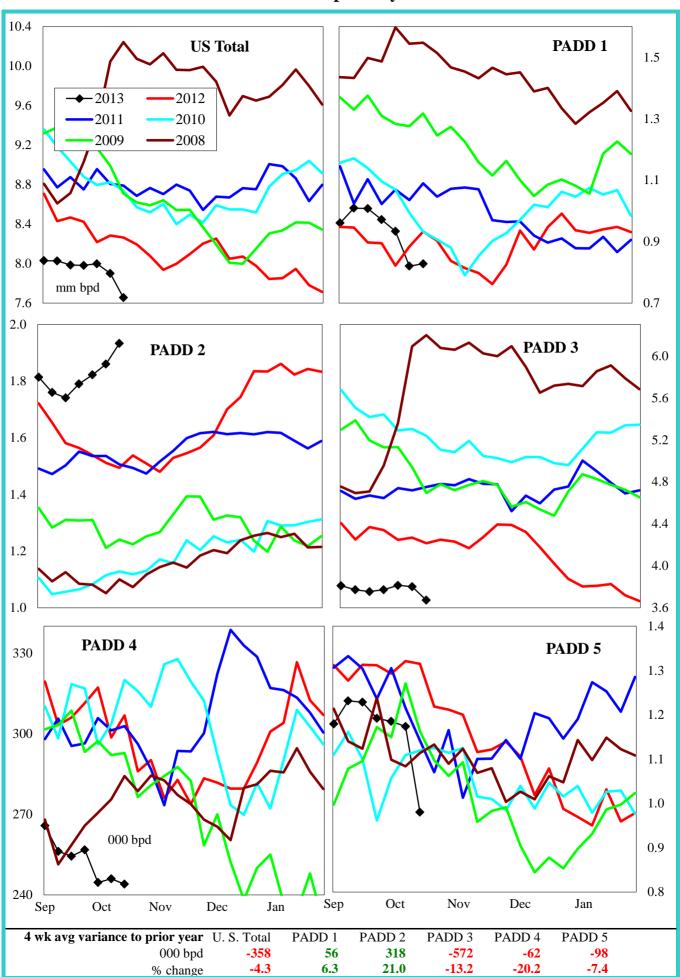
# **United States Refinery Percent Utilization Rate and Product Yields**



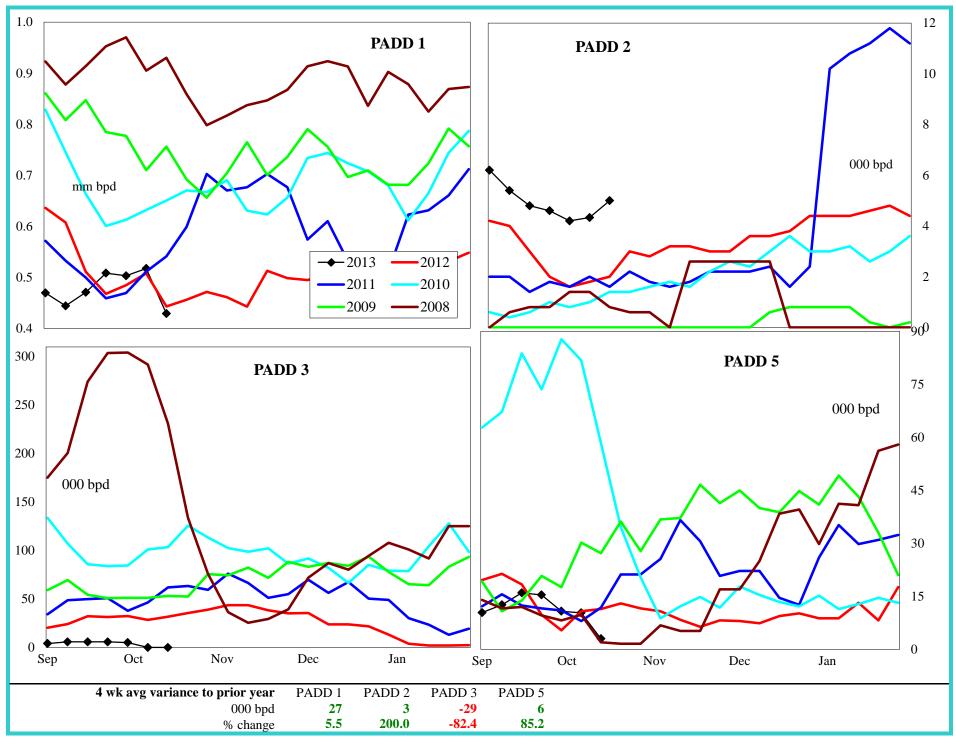
#### **United States Petroleum Imports**



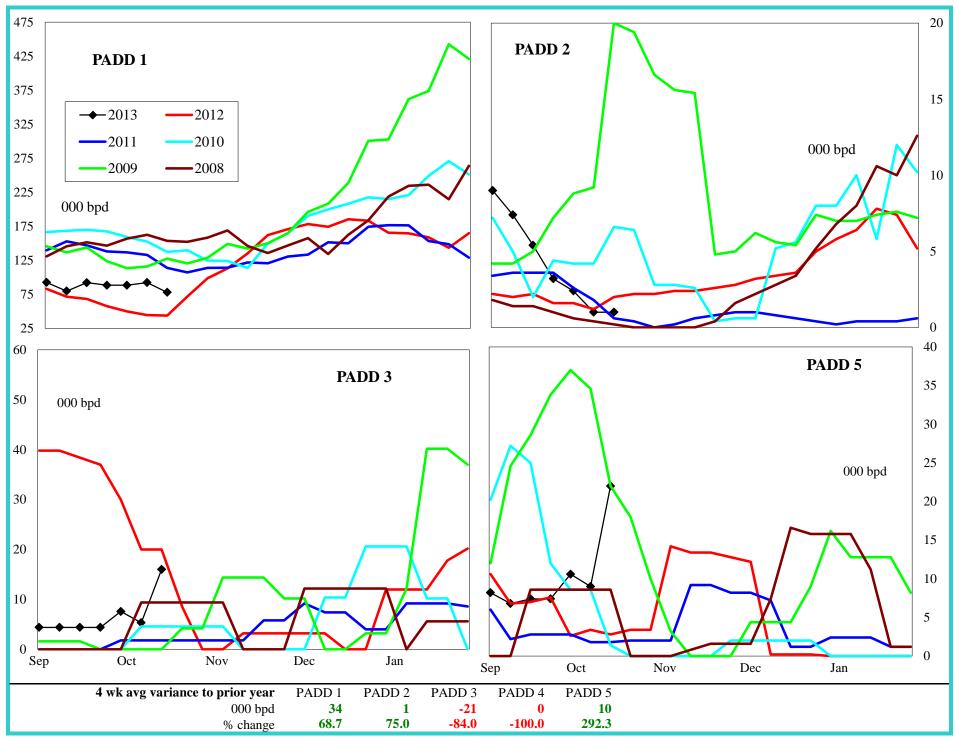
## **Crude Oil Imports by PADD**



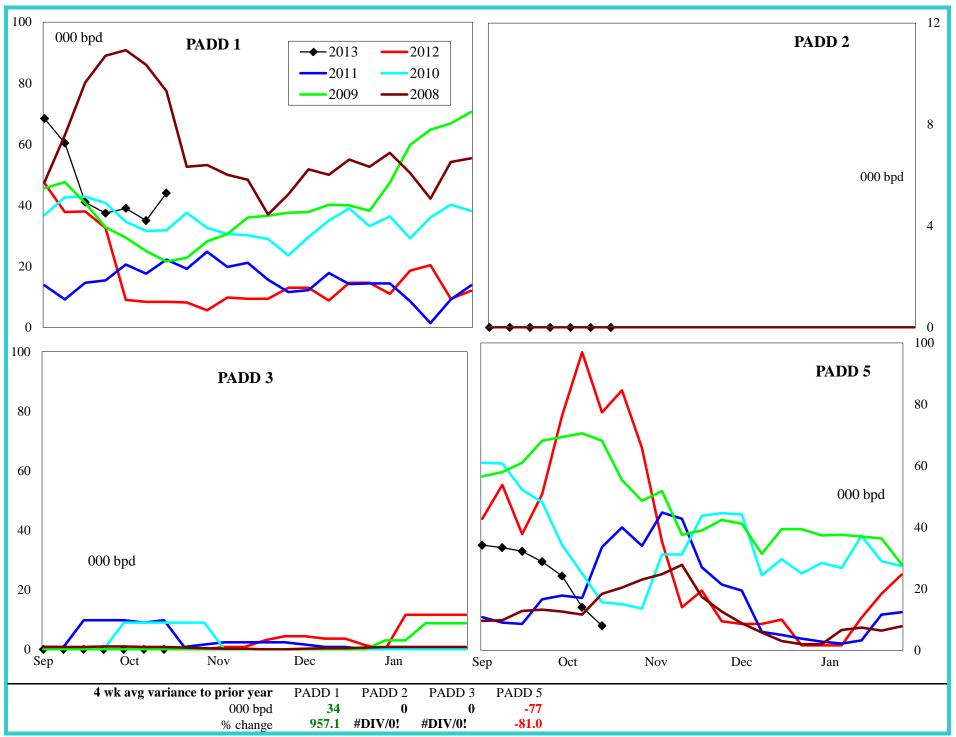
#### **Gasoline Imports by PADD (Finished + Blend Stocks)**



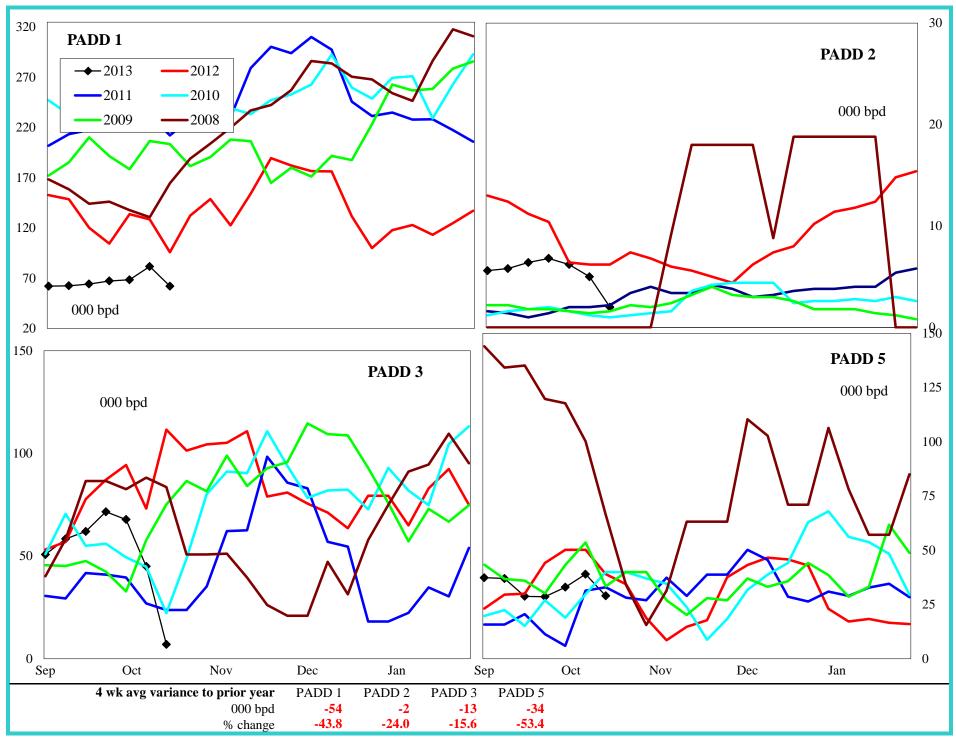
#### **Distillate Imports by PADD**



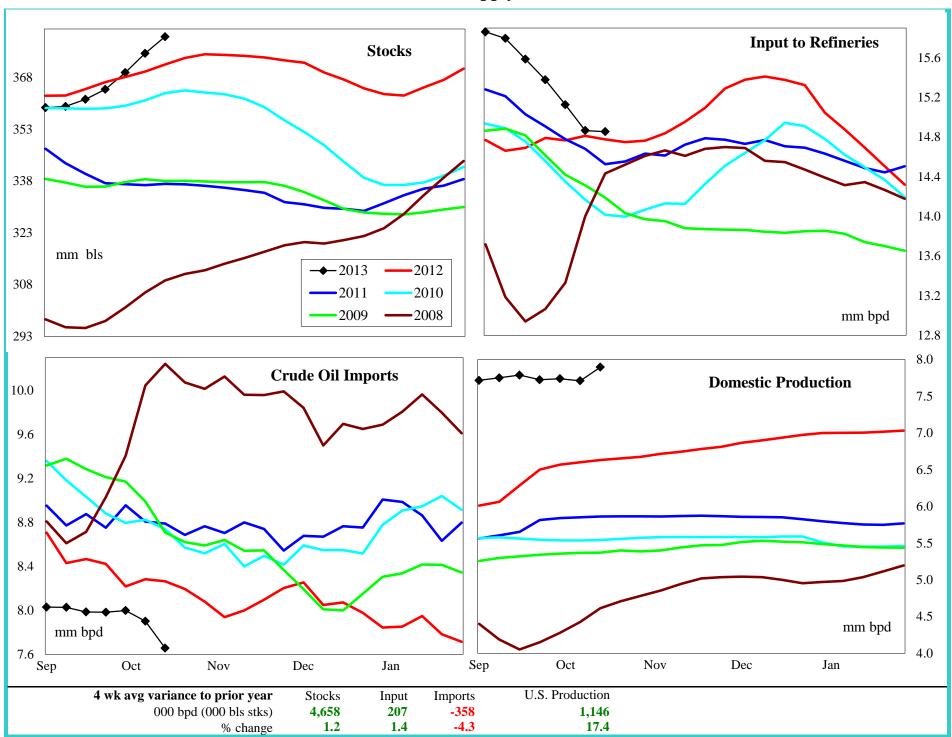
#### **Jet Fuel Imports by PADD**



## **Residual Fuel Oil Imports by PADD**

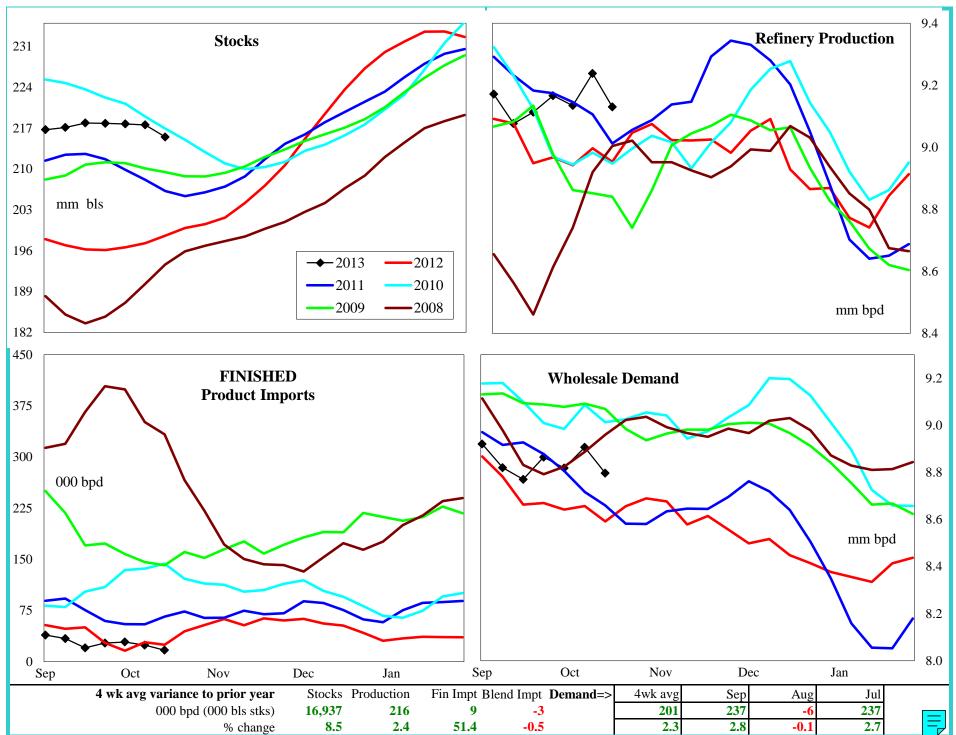


# **United States Crude Oil Supply and Demand Balance**

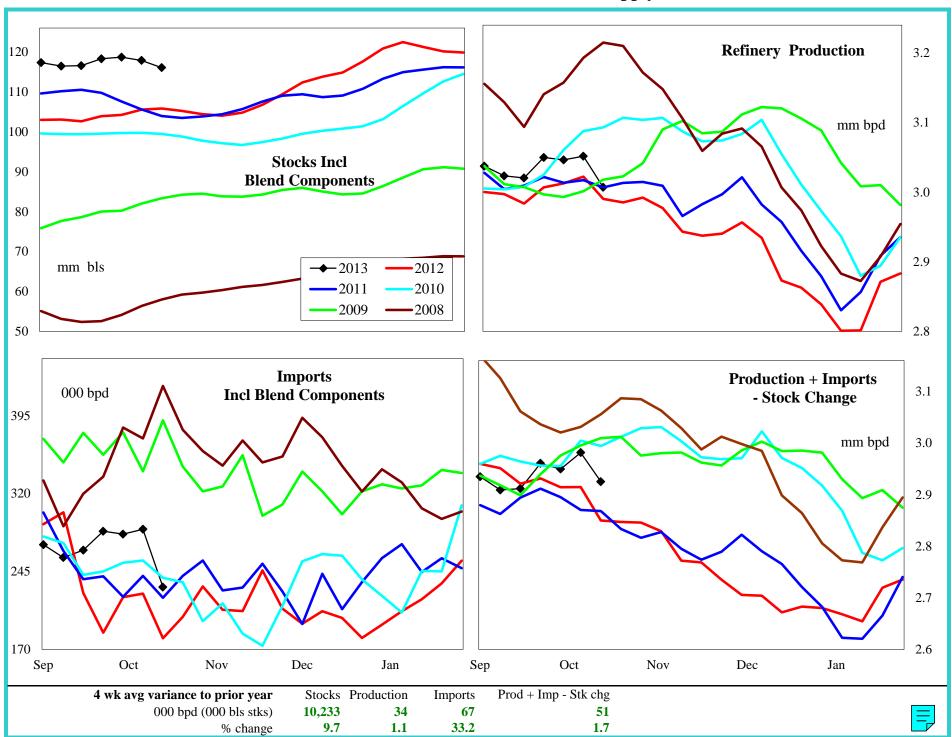


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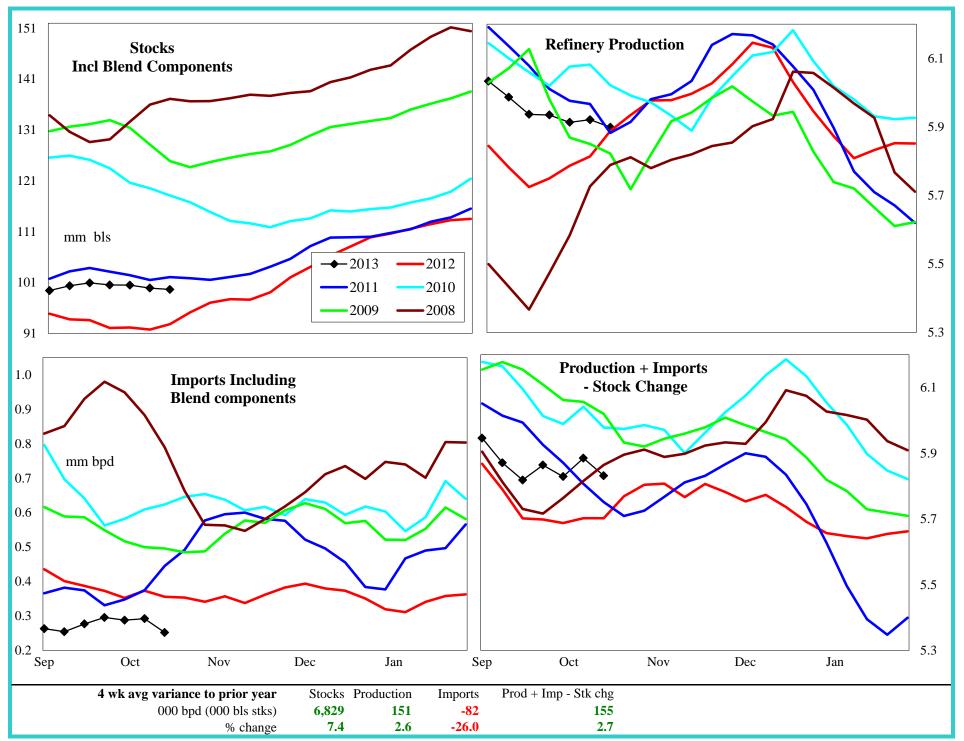
## **United States Gasoline Supply and Demand Balance**



#### **United States Reformulated Gasoline Supply**

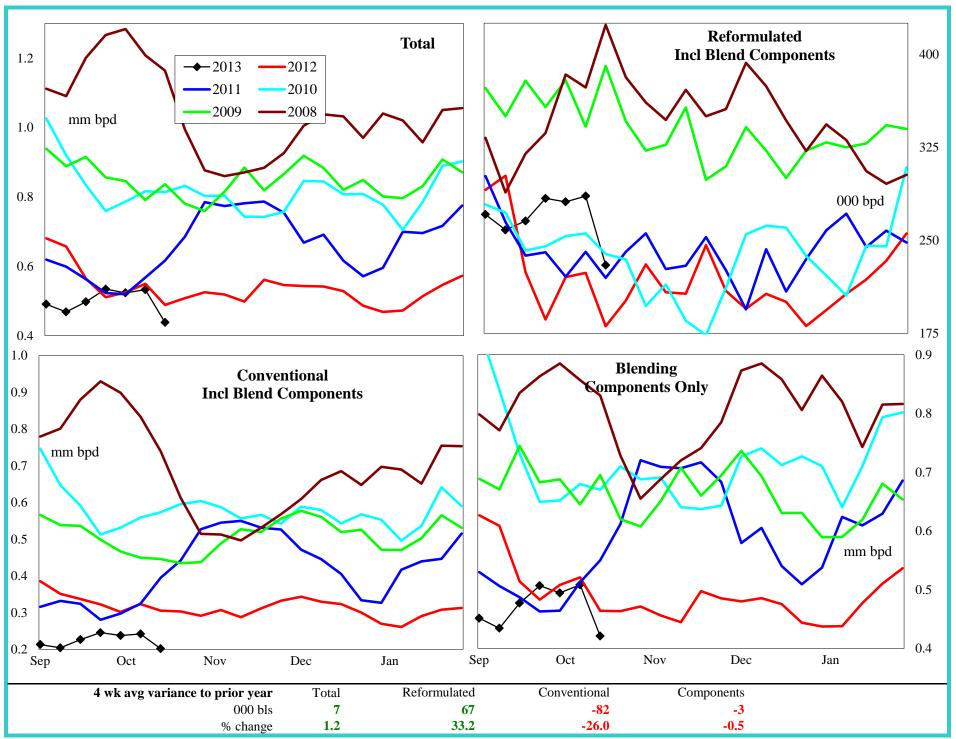


## **United States Conventional Gasoline Supply**

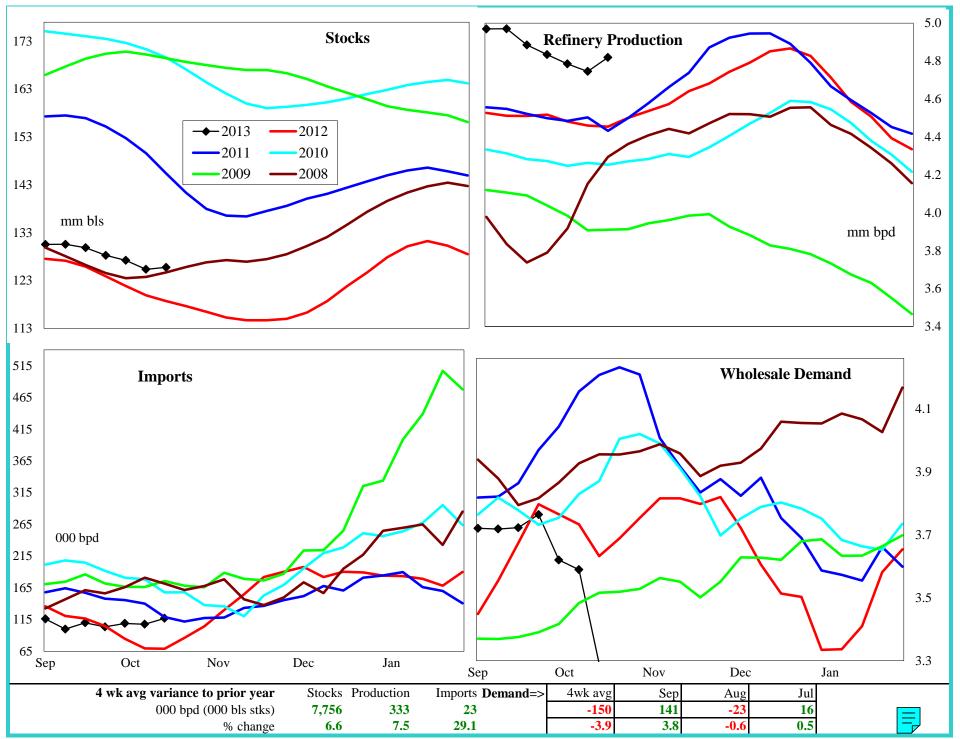


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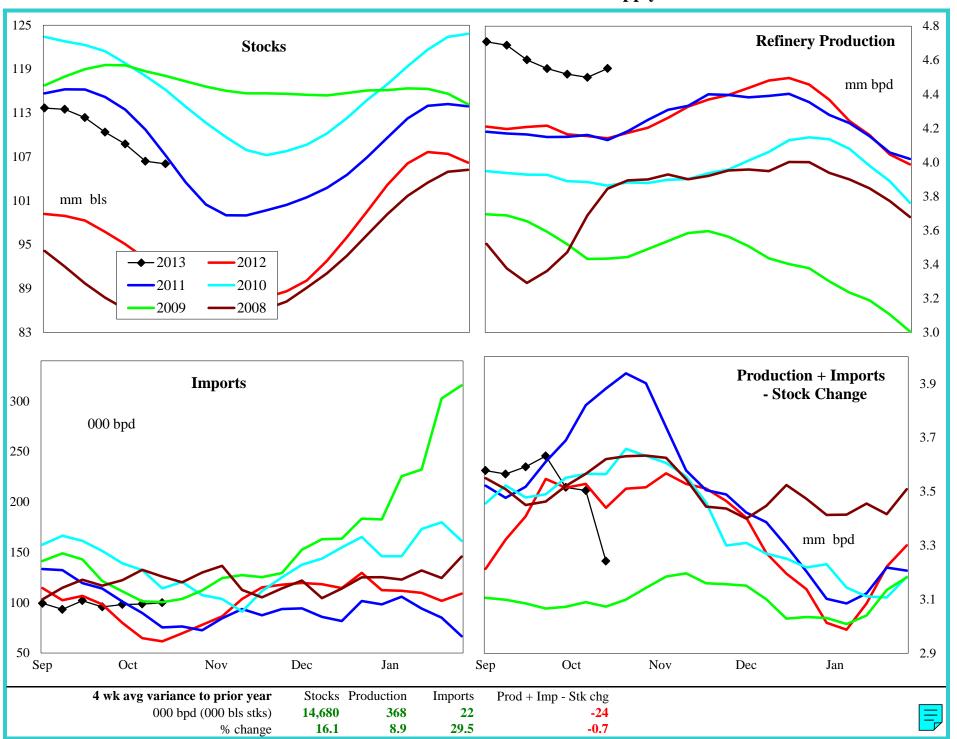
#### **United States Gasoline Imports by Type**



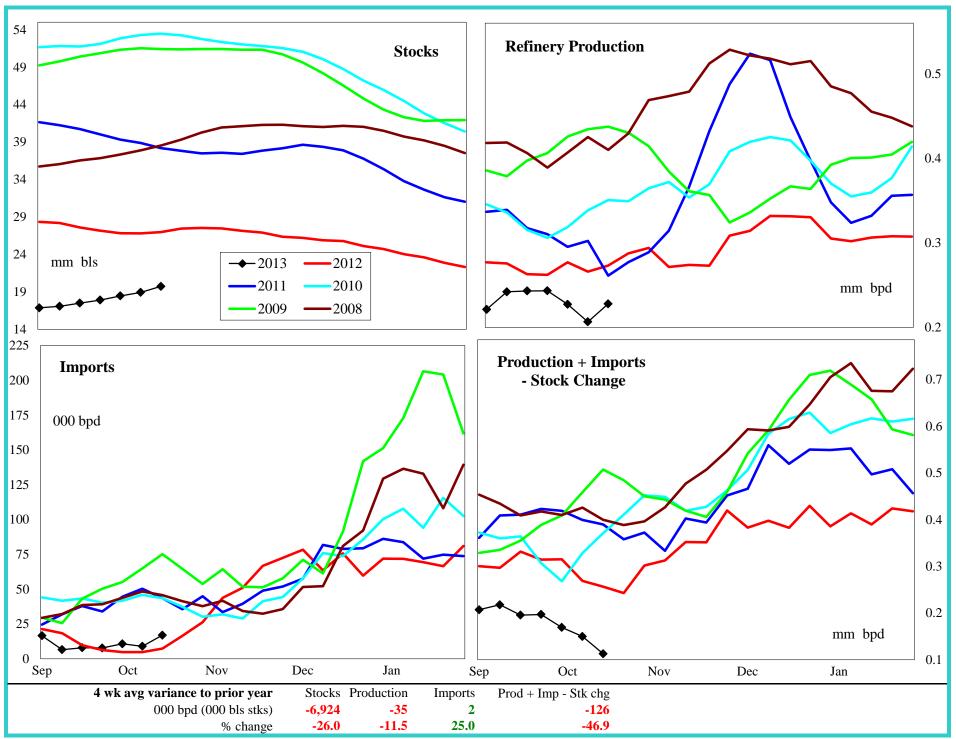
#### **United States Distillate Supply and Demand Balance**



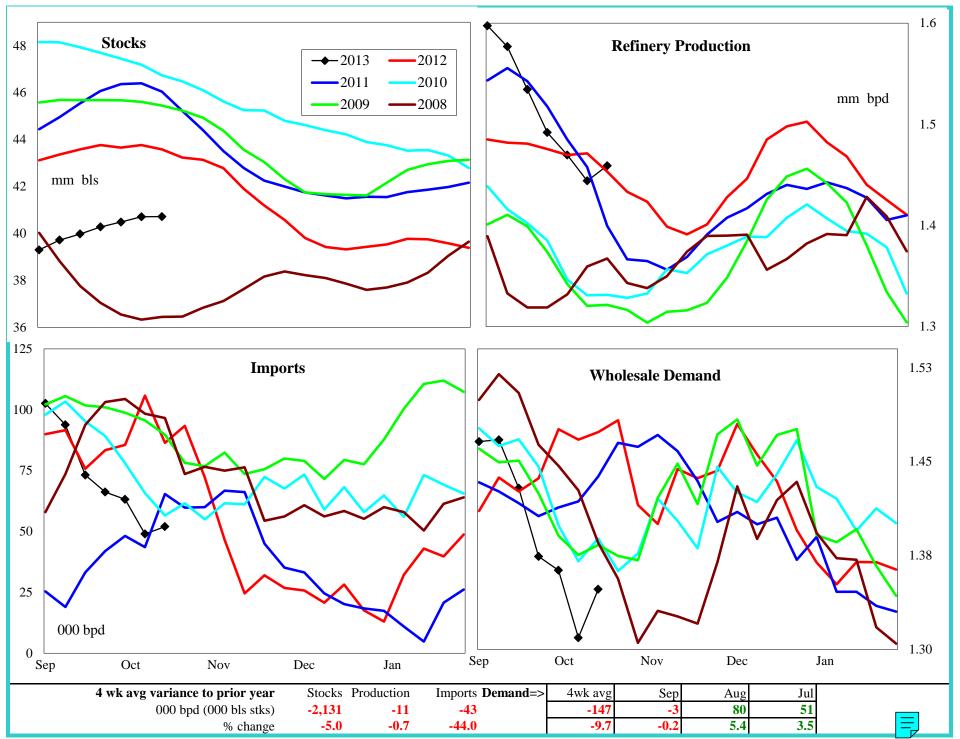
#### **United States Low Sulfur Distillate Supply**



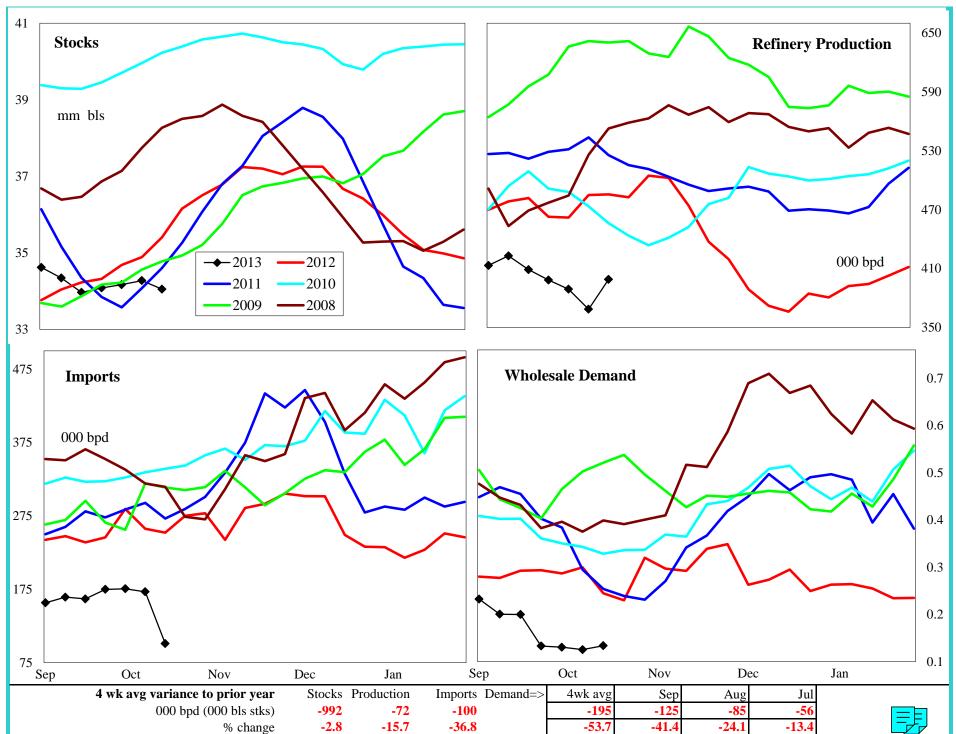
## **United States High Sulfur Distillate Supply**



## **United States Jet Fuel Supply and Demand Balance**

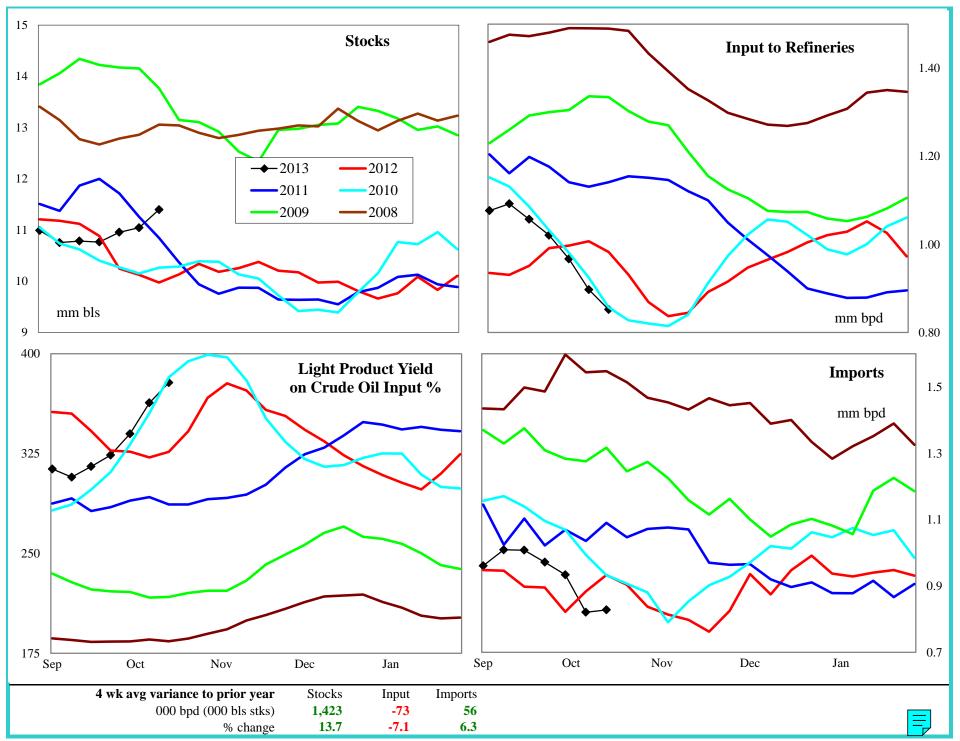


## **United States Residual Fuel Oil Supply and Demand Balance**

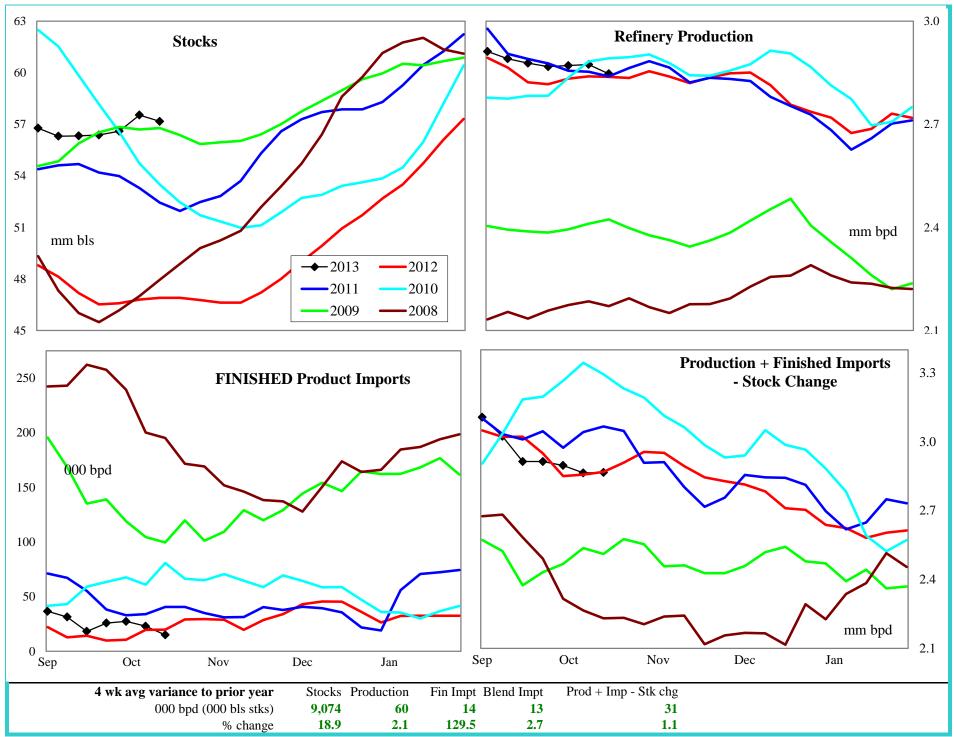


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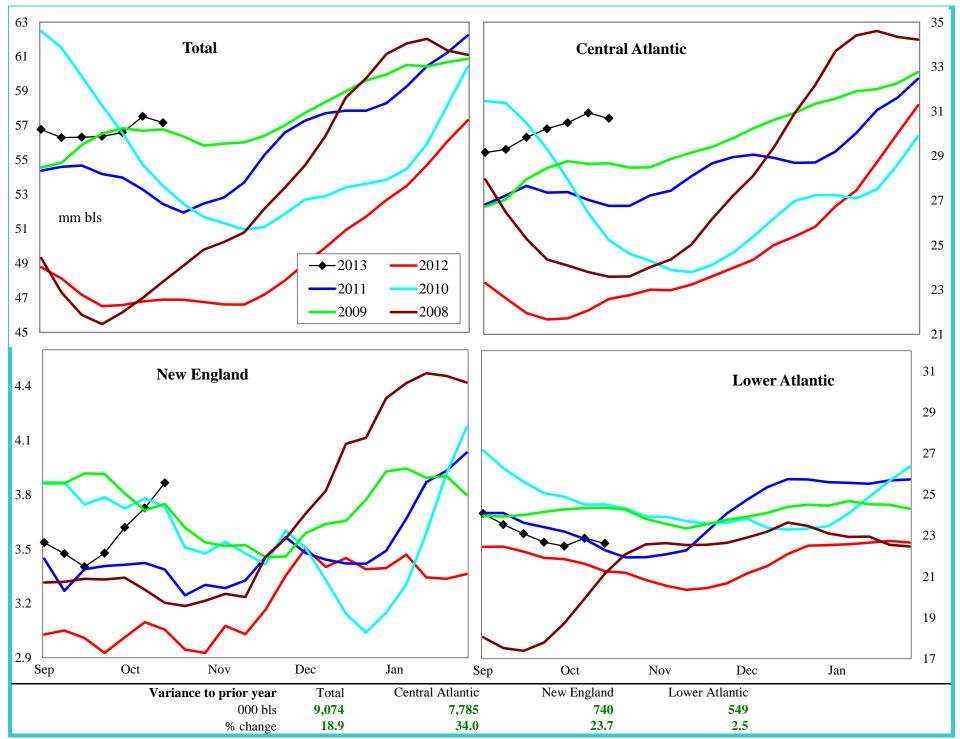
## **PADD 1 Crude Oil Supply and Refining**



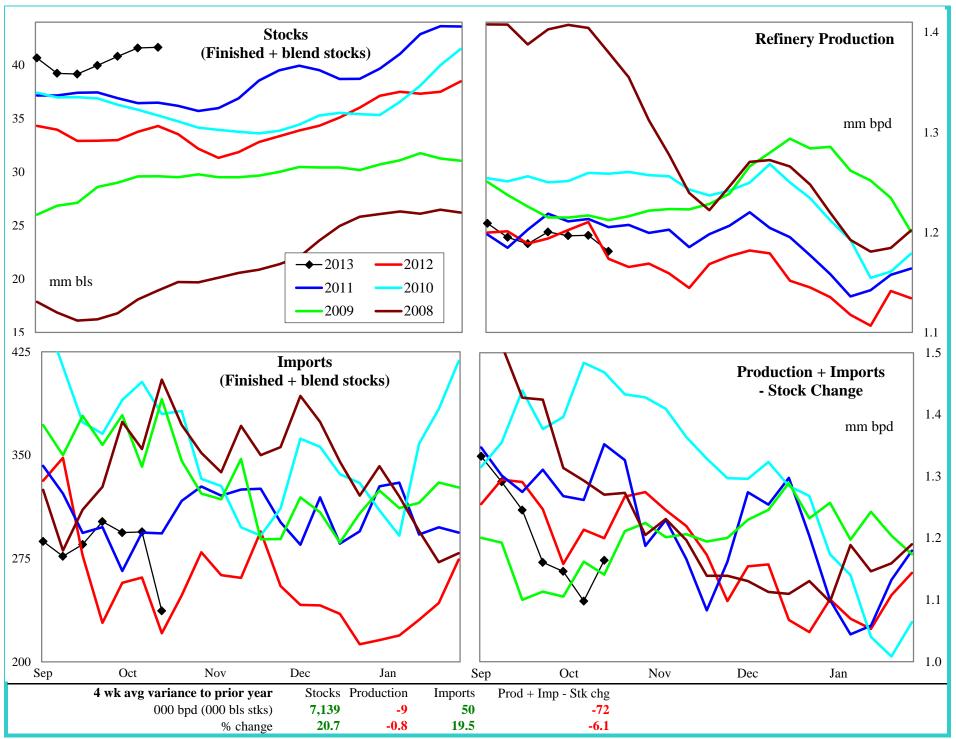
#### **PADD 1 Gasoline Supply**



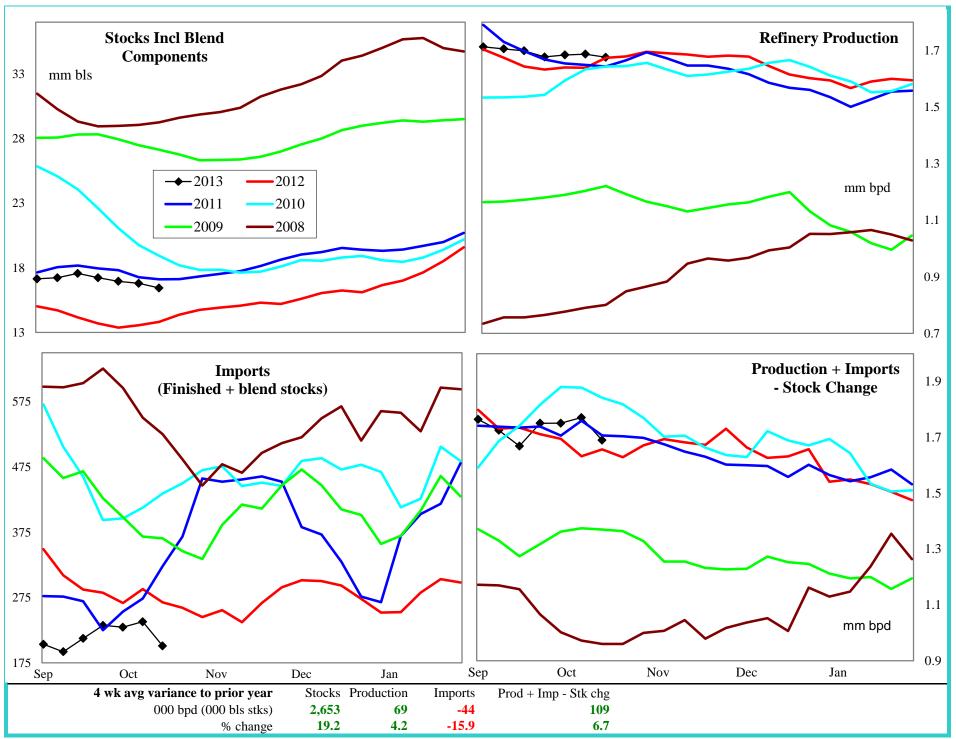
#### **PADD 1 Gasoline Stocks by Region**



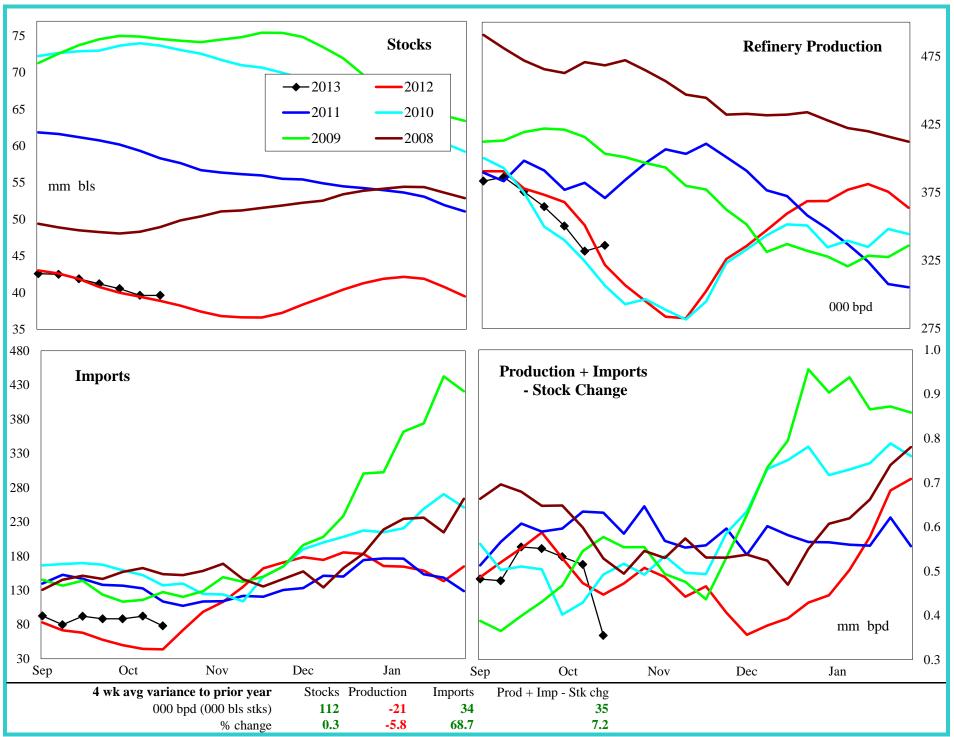
#### **PADD 1 Reformulated Gasoline Supply**



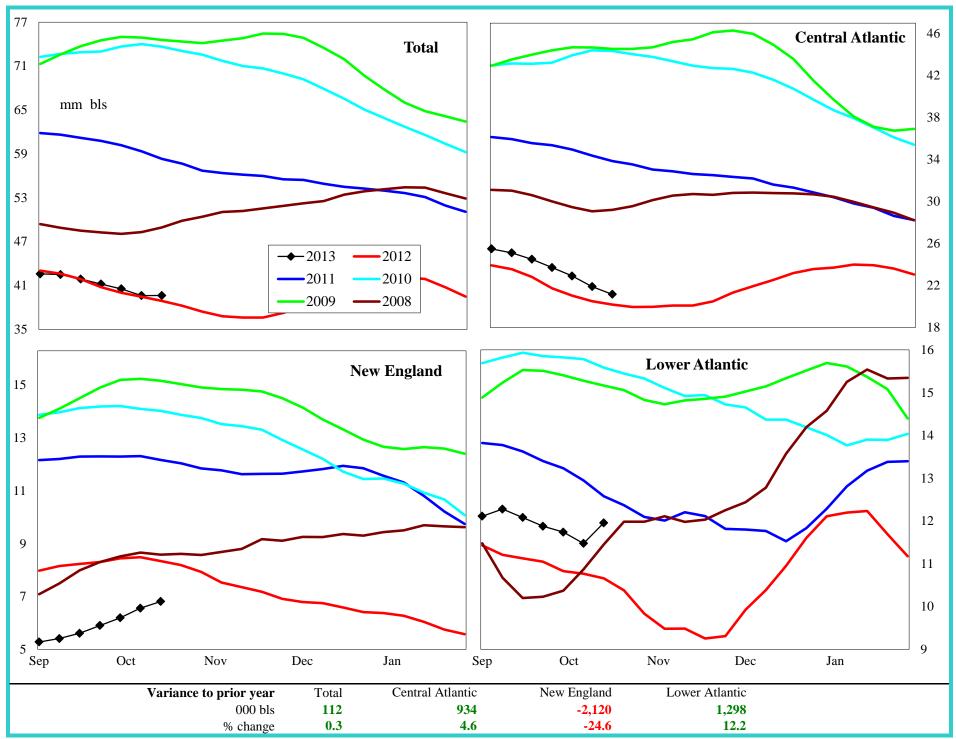
## **PADD 1 Conventional Gasoline Supply**



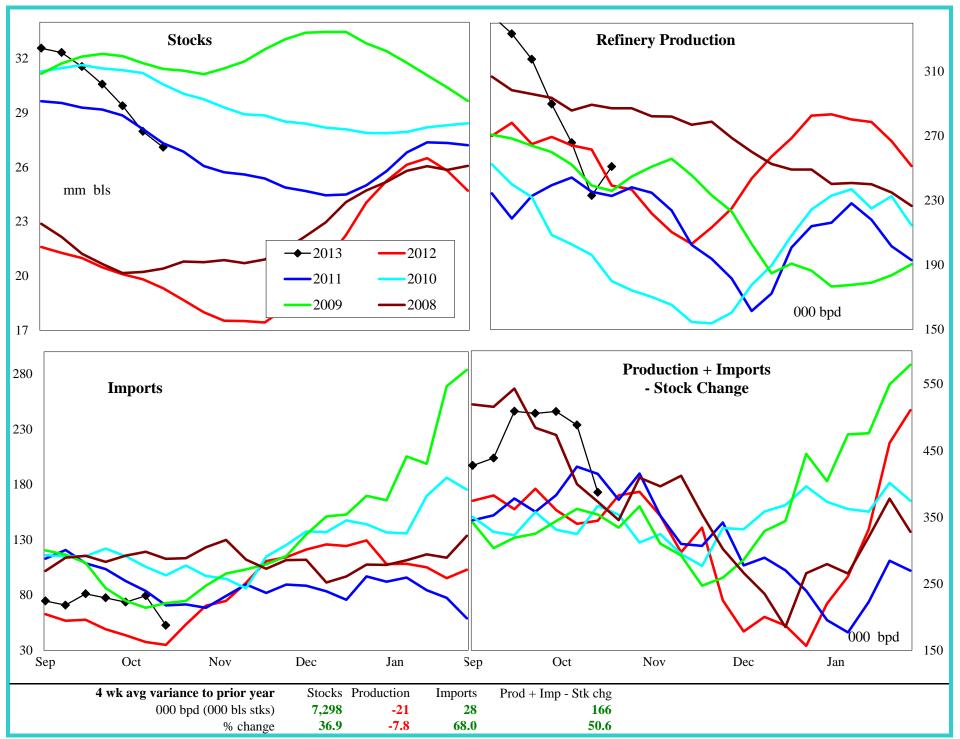
#### **PADD 1 Distillate Supply**



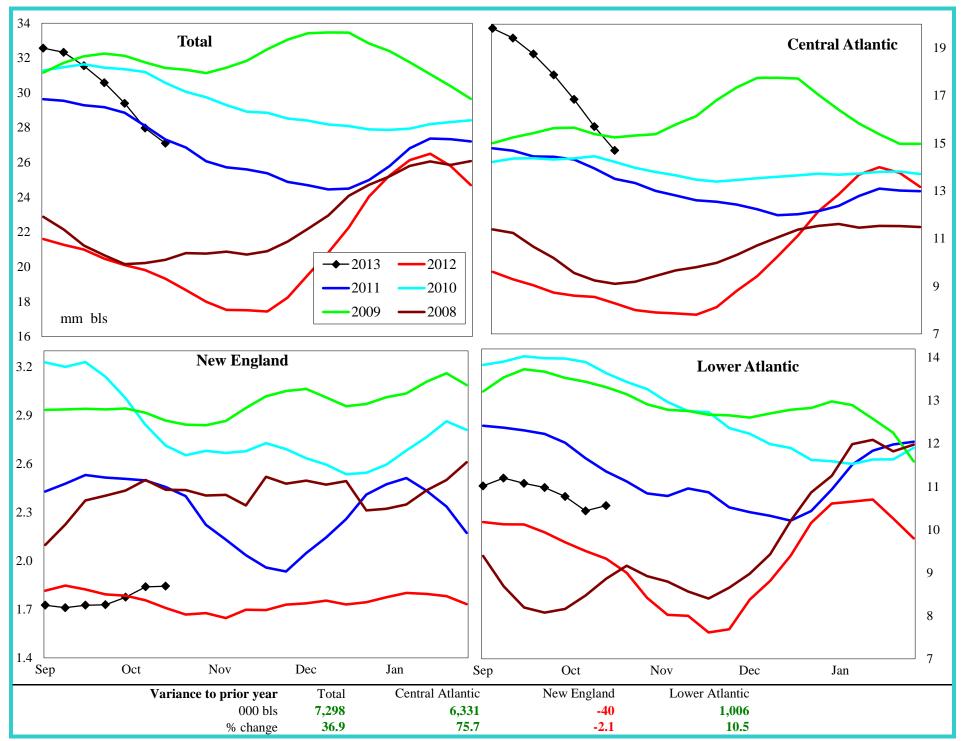
# **PADD 1 Distillate Stocks by Region**



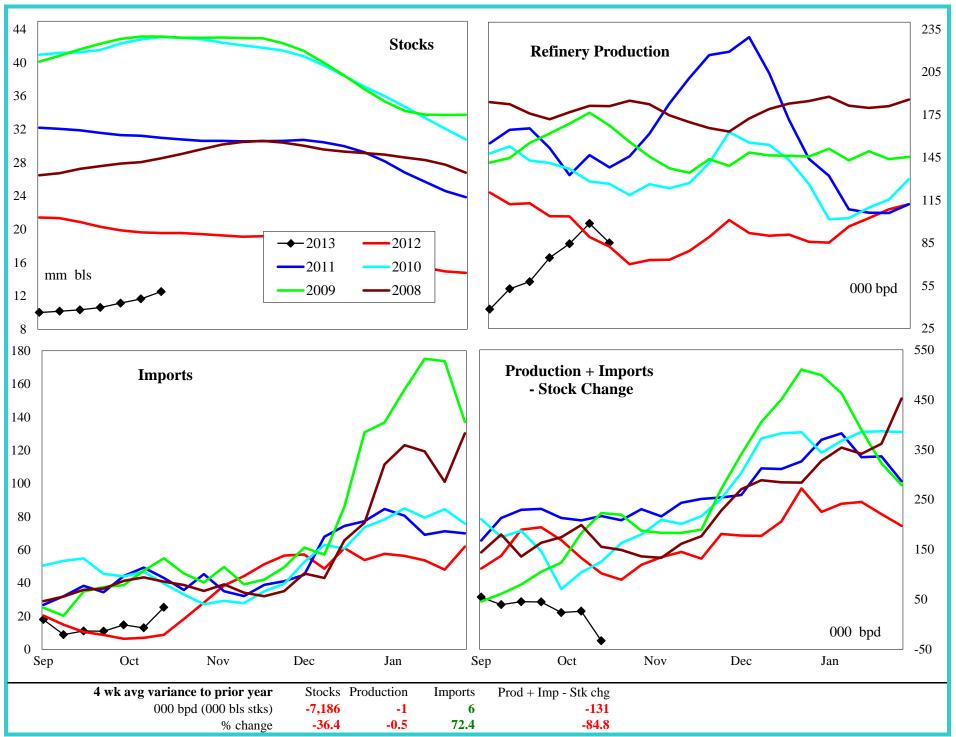
## **PADD 1 Low Sulfur Distillate Supply**



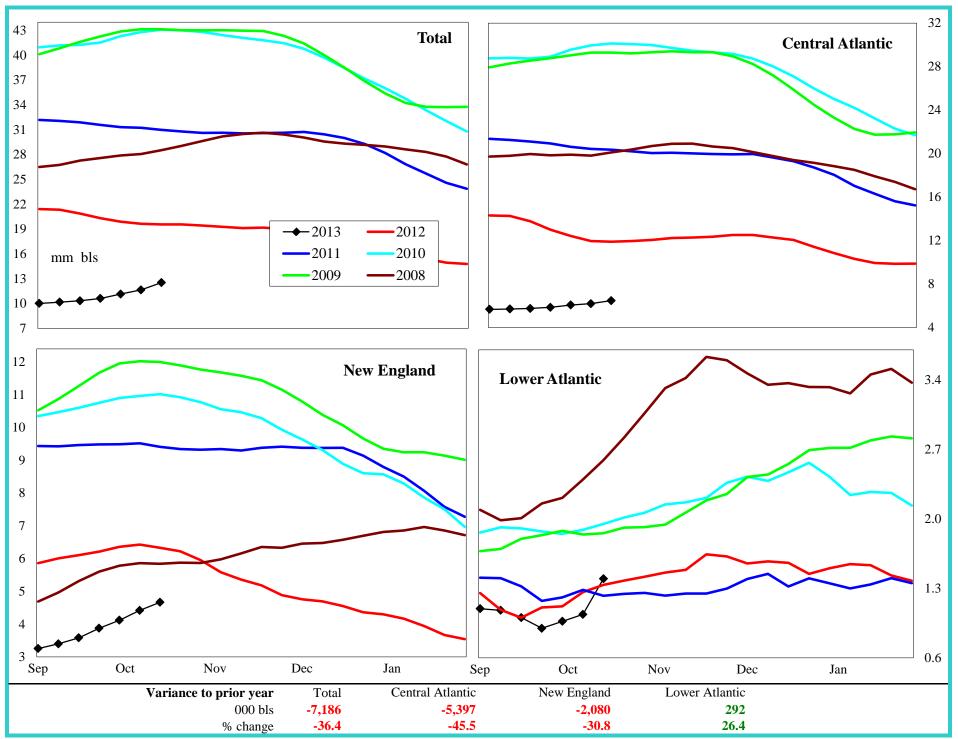
#### **PADD 1 Low Sulfur Distillate Stocks by Region**



## **PADD 1 High Sulfur Distillate Supply**

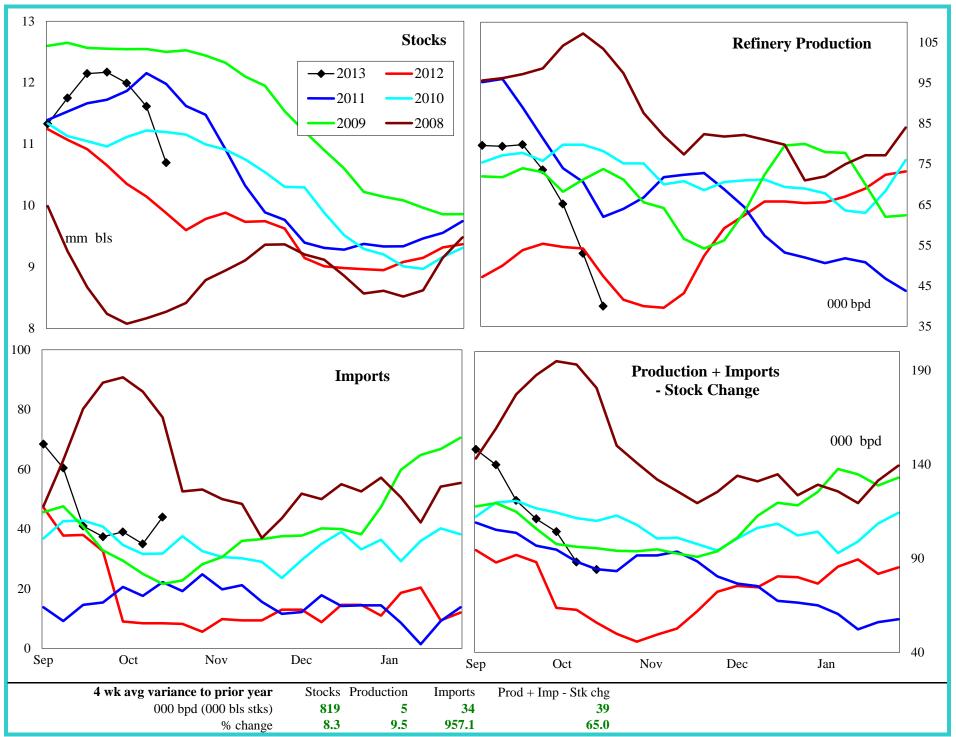


## PADD 1 High Sulfur Distillate Stocks by Region

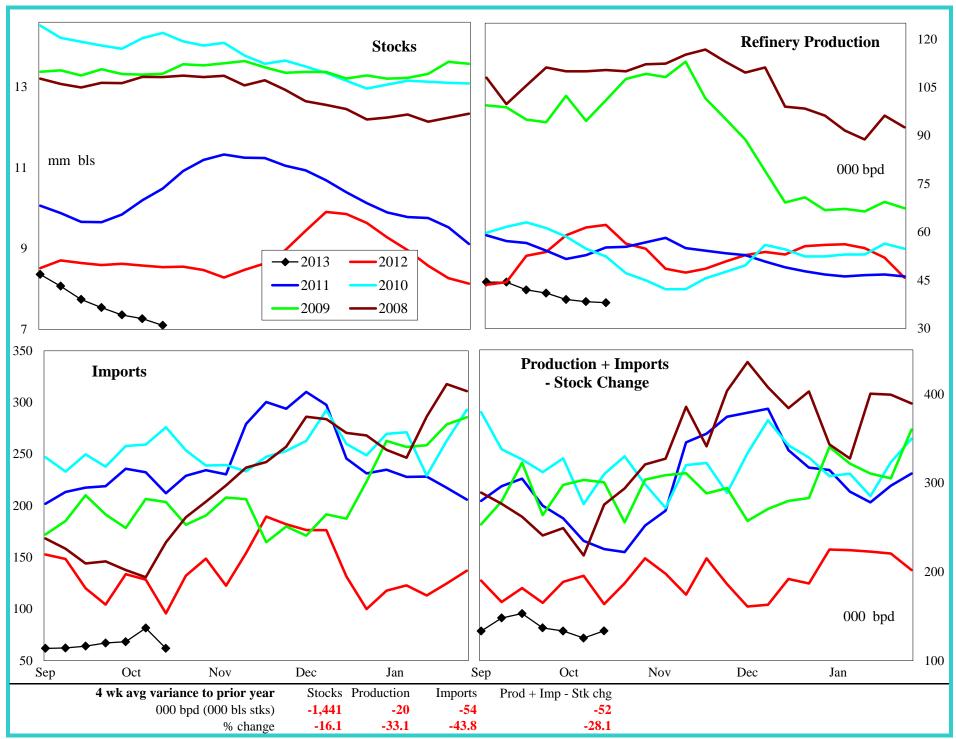


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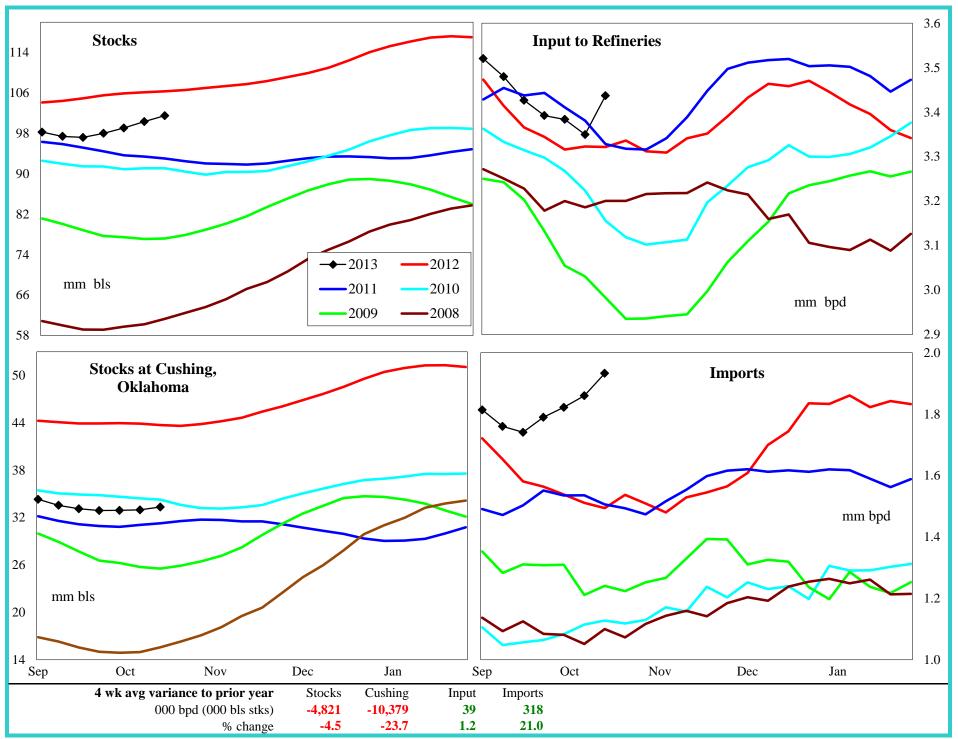
#### **PADD 1 Jet Fuel Supply**



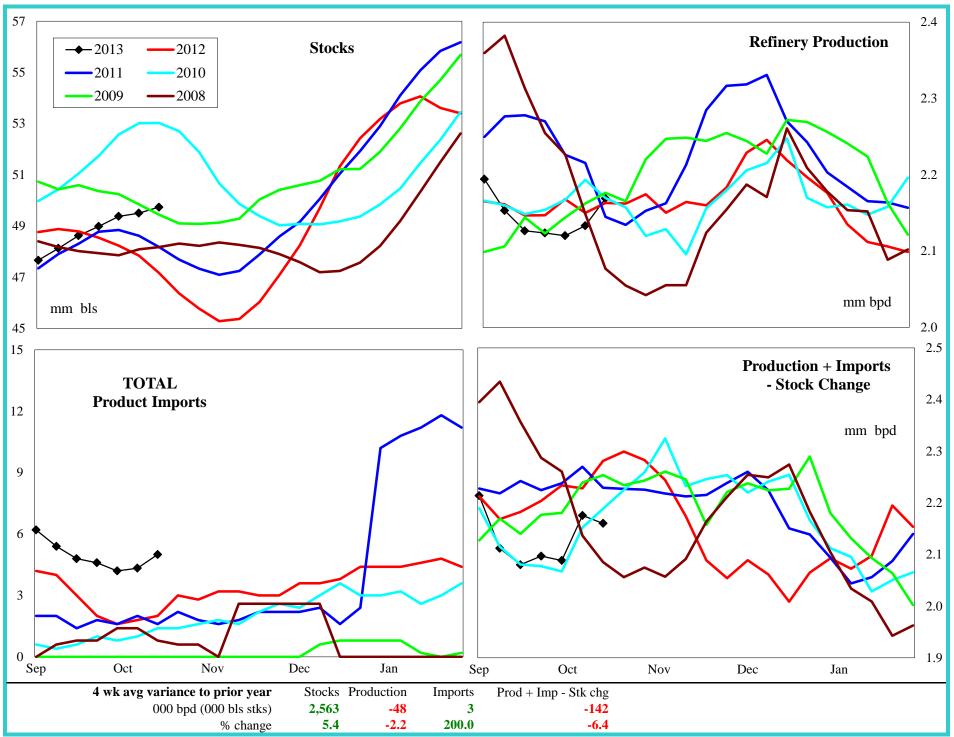
## **PADD 1 Residual Fuel Oil Supply**



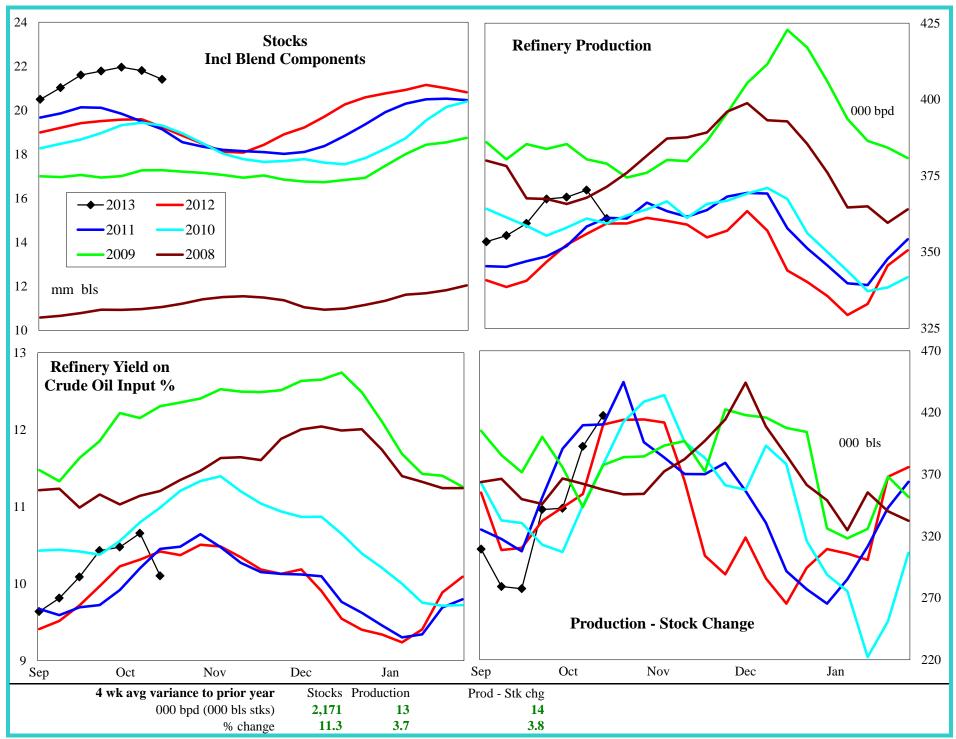
## **PADD 2 Crude Oil Supply and Refining**



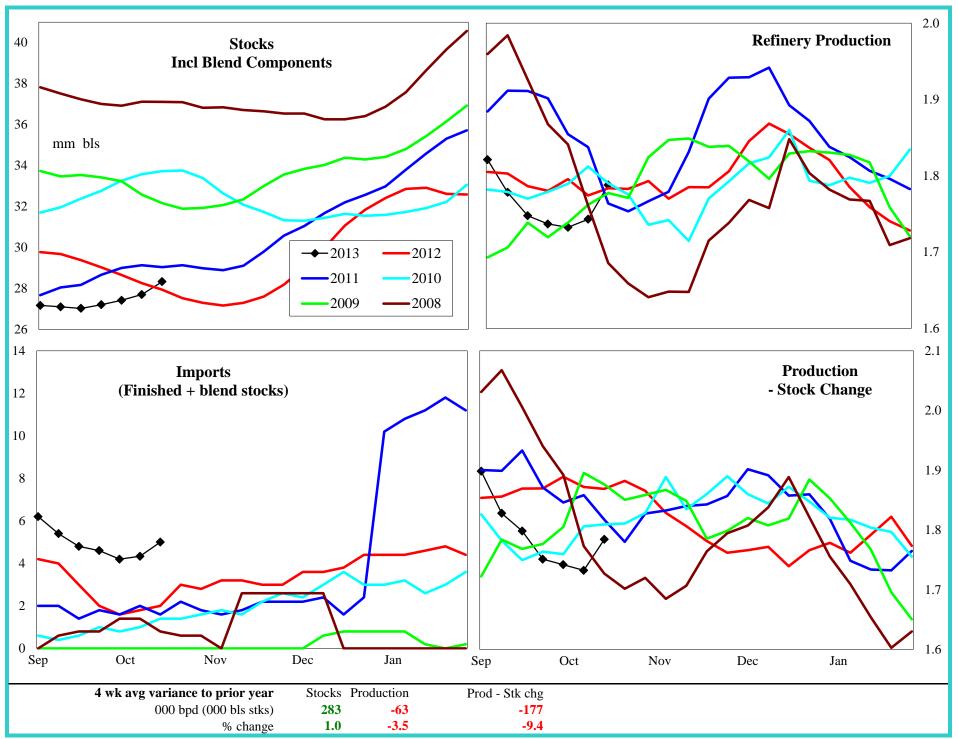
### **PADD 2 Gasoline Supply**



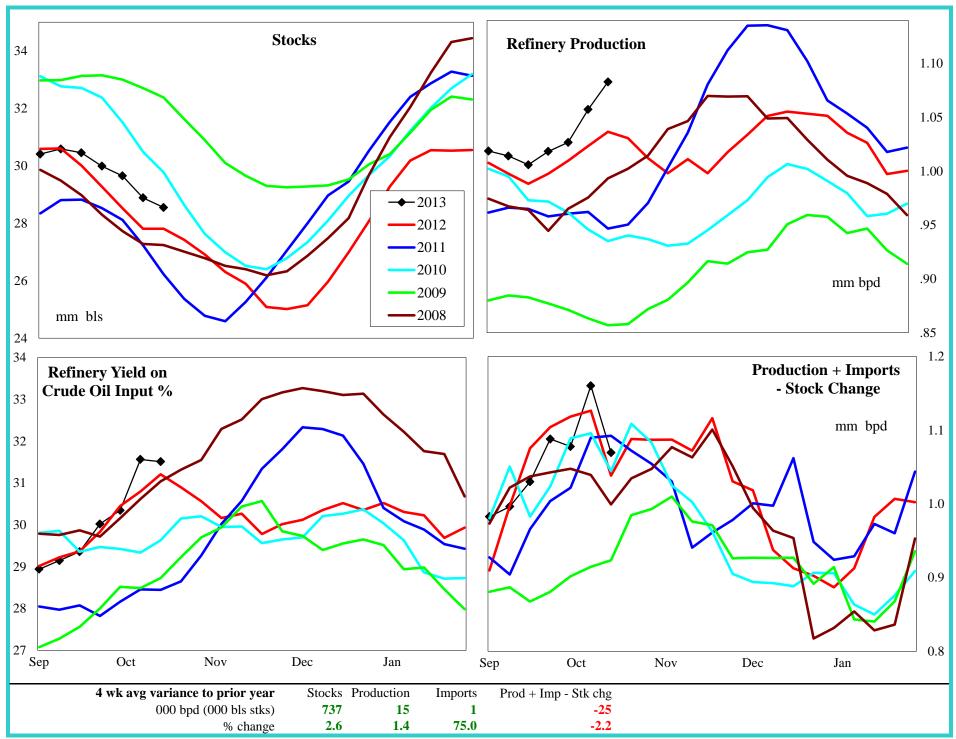
## **PADD 2 Reformulated Gasoline Supply**



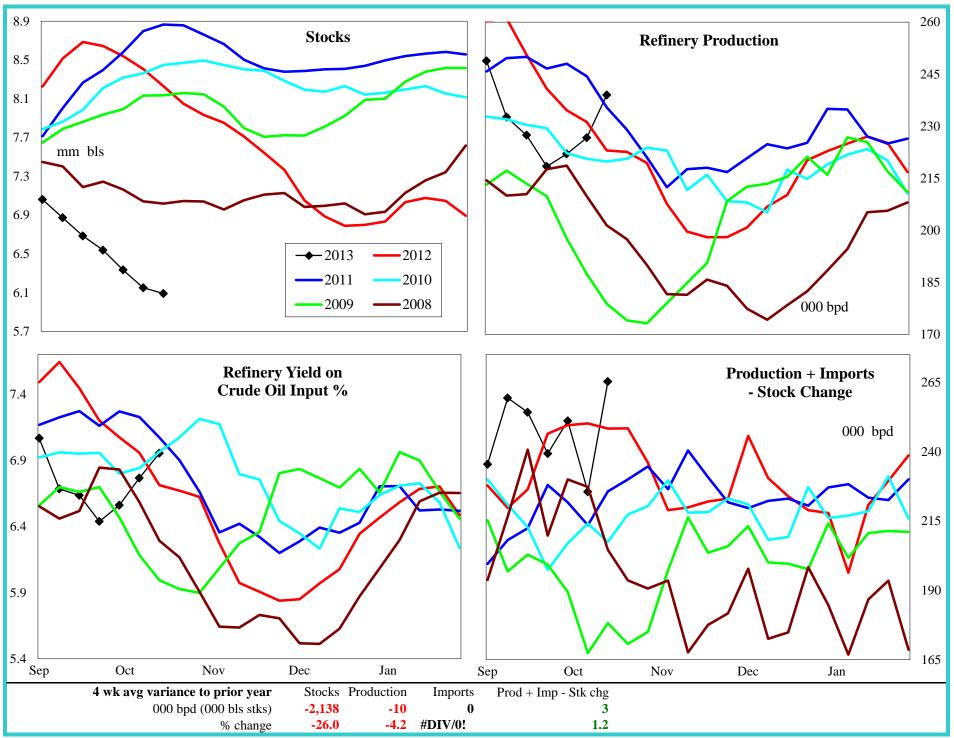
## **PADD 2 Conventional Gasoline Supply**



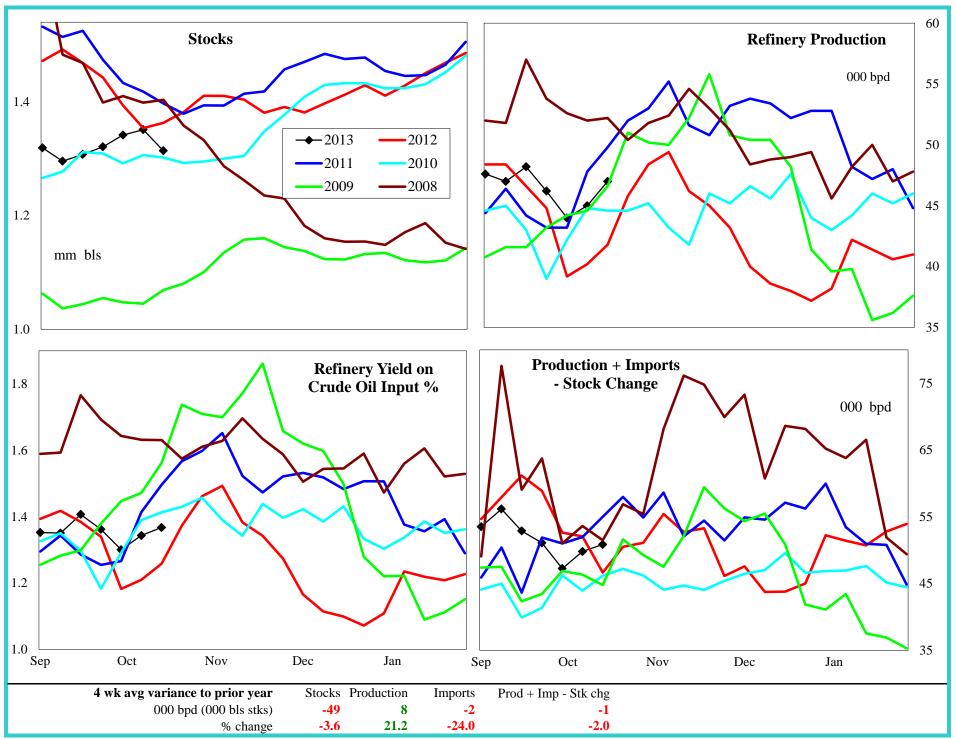
### **PADD 2 Distillate Supply**



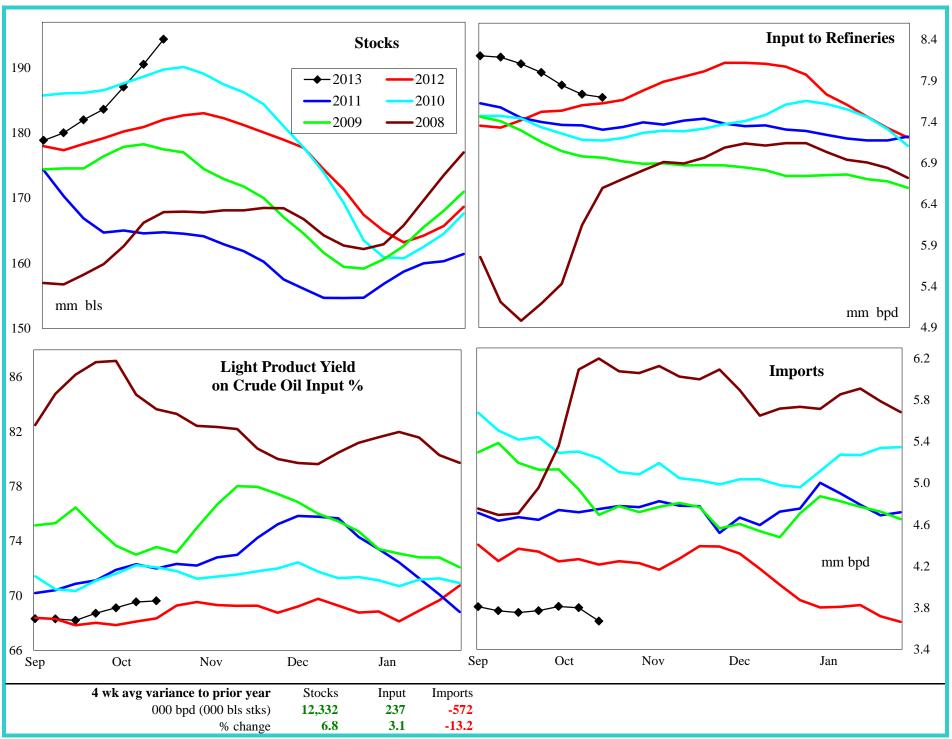
#### **PADD 2 Jet Fuel Supply**



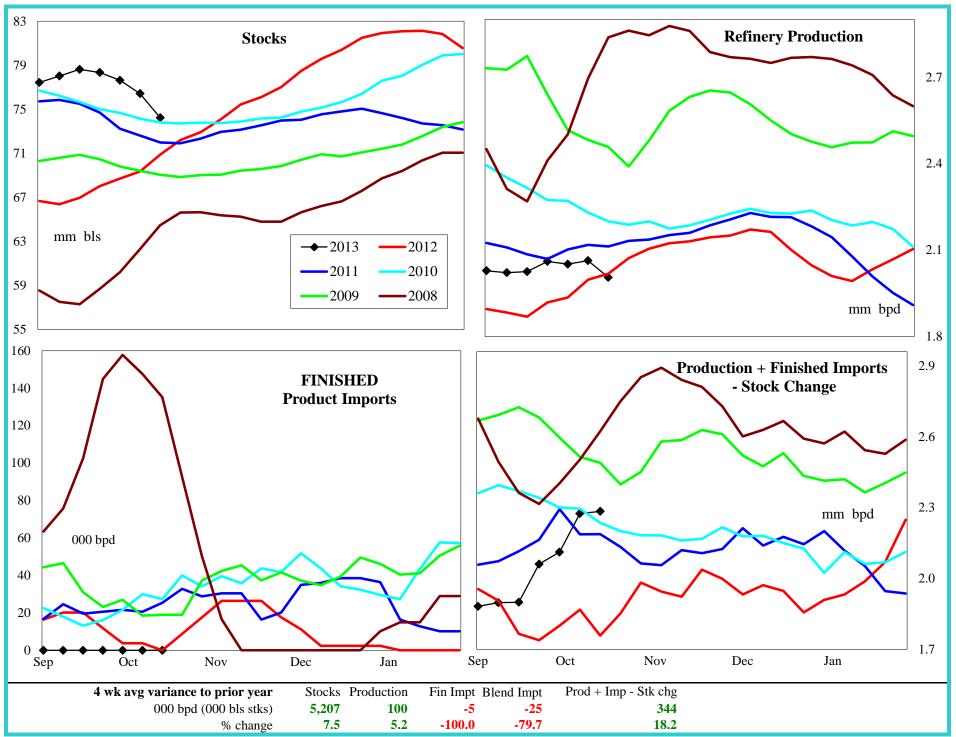
# **PADD 2 Residual Fuel Oil Supply**



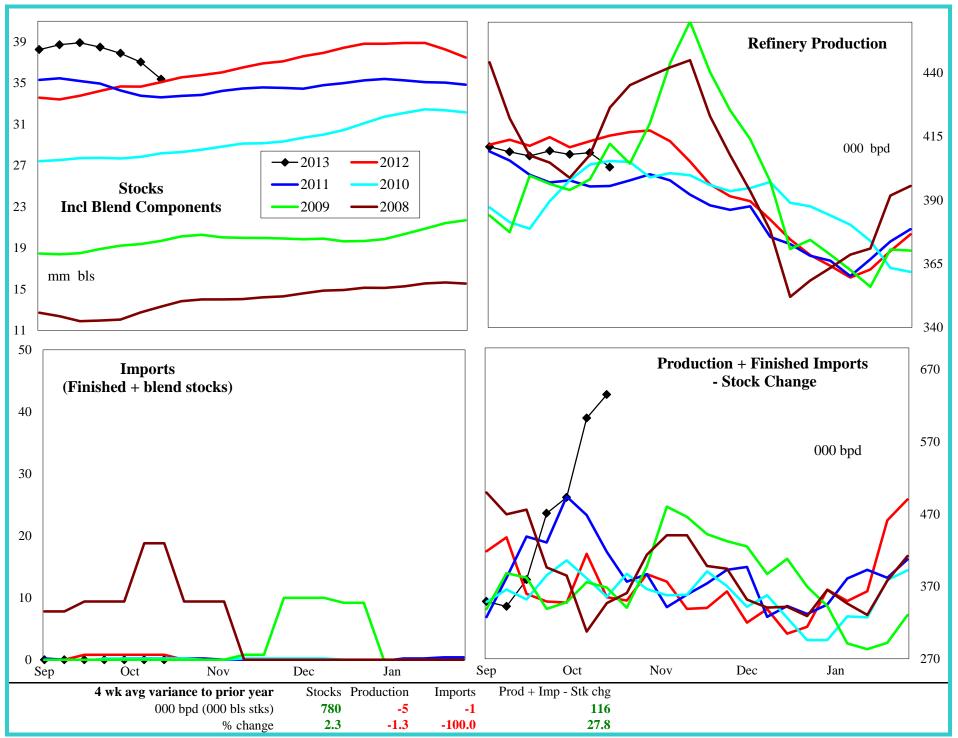
## **PADD 3 Crude Oil Supply and Refining**



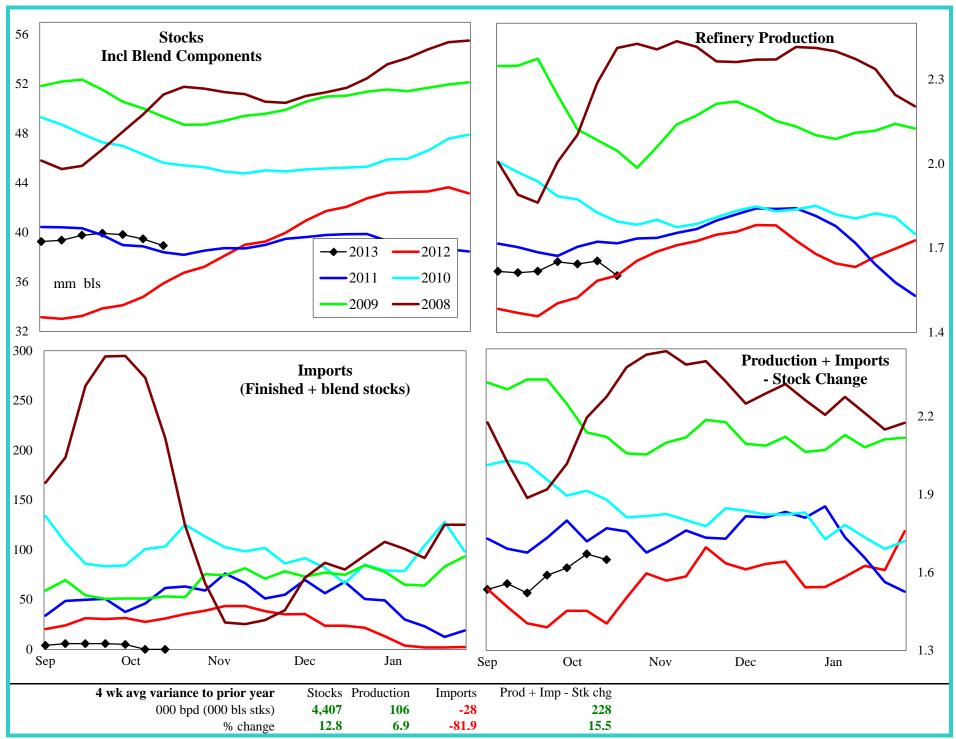
### **PADD 3 Gasoline Supply**



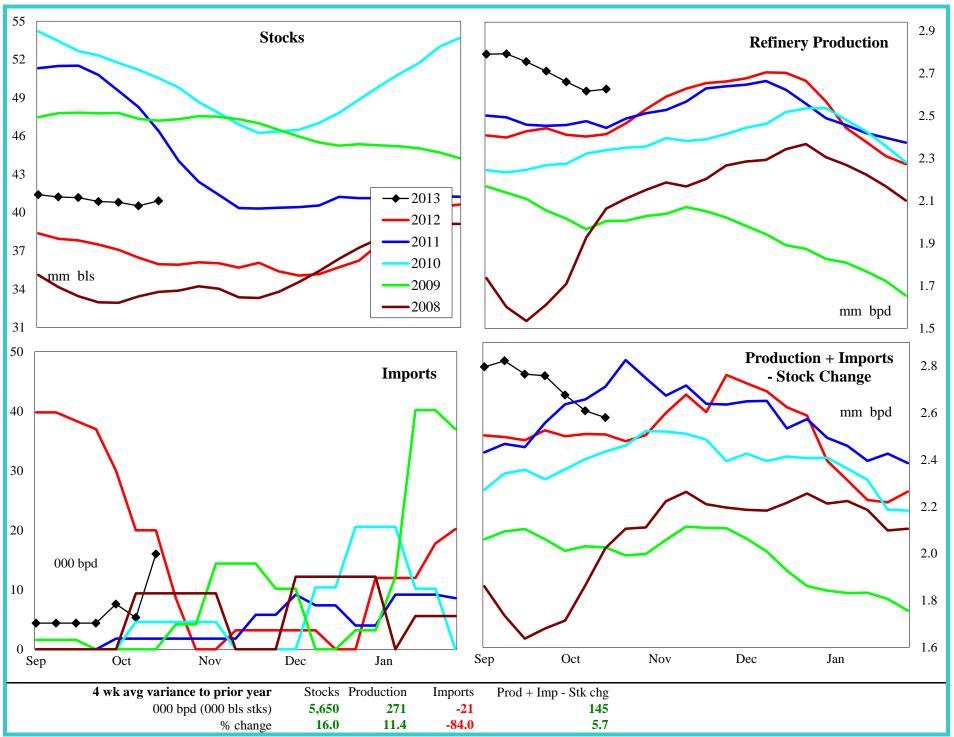
## **PADD 3 Reformulated Gasoline Supply**



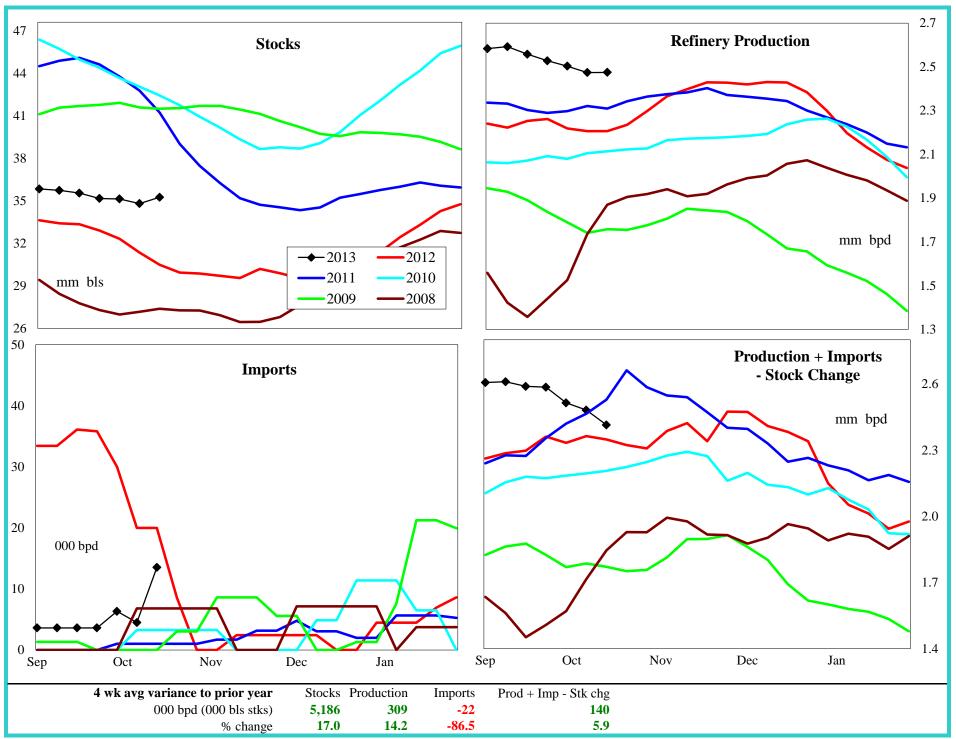
### **PADD 3 Conventional Gasoline Supply**



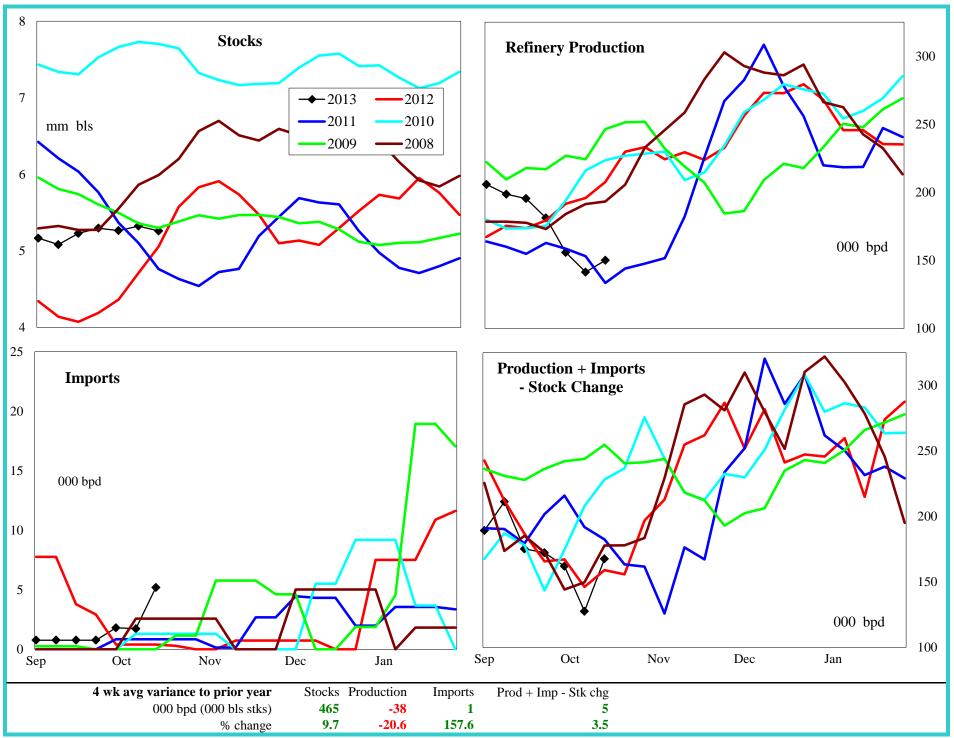
### **PADD 3 Distillate Supply**



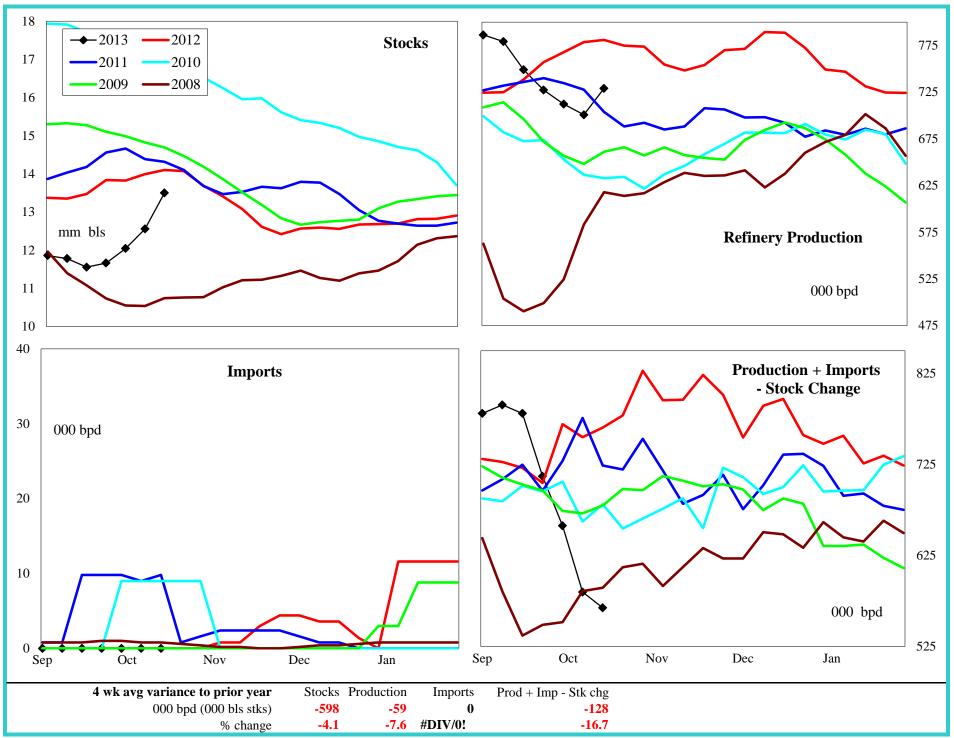
# **PADD 3 Low Sulfur Distillate Supply**



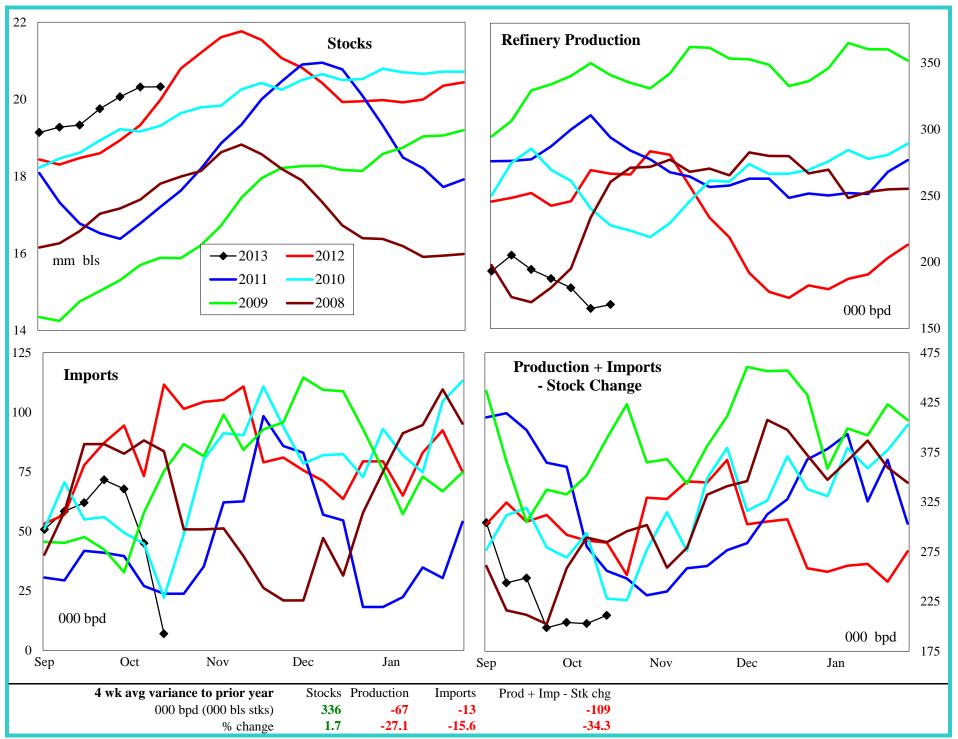
# **PADD 3 High Sulfur Distillate Supply**



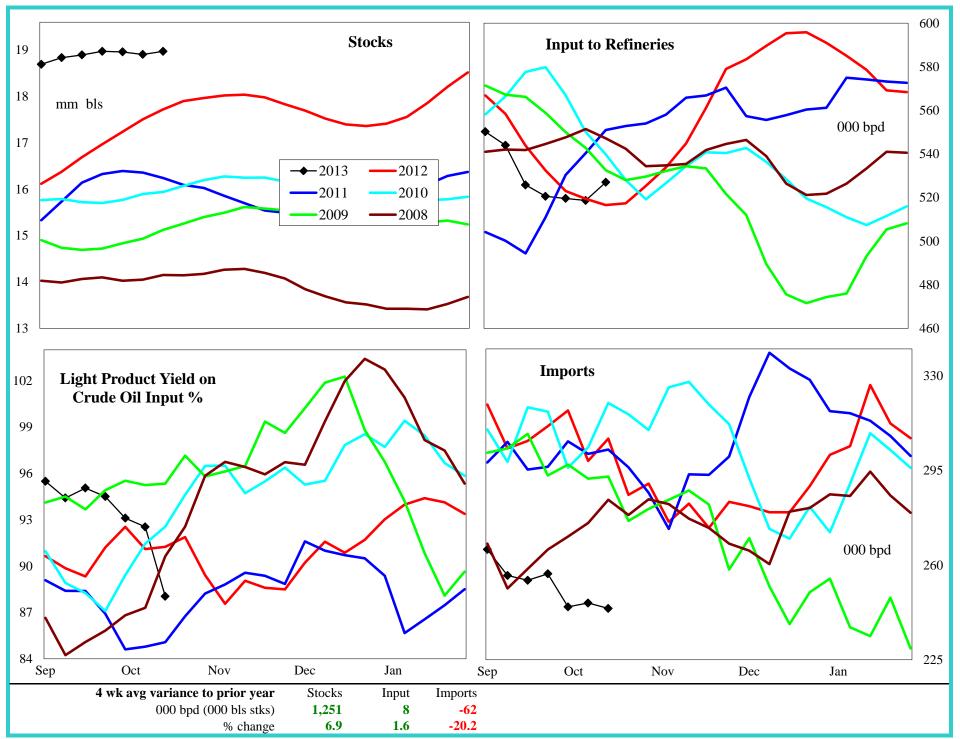
### **PADD 3 Jet Fuel Supply**



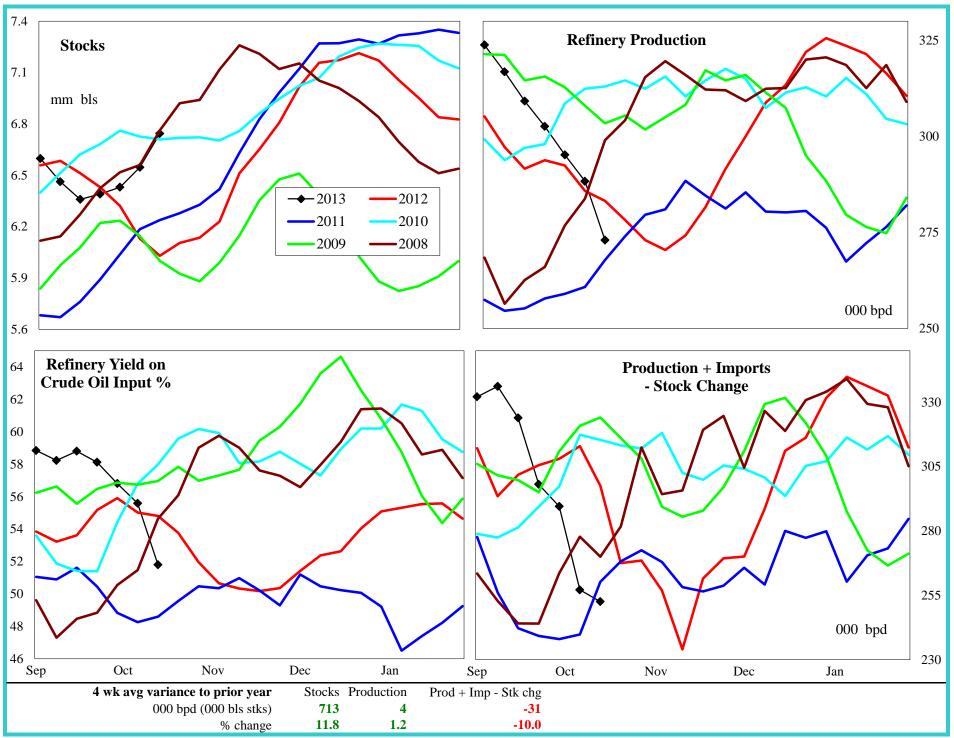
# **PADD 3 Residual Fuel Oil Supply**



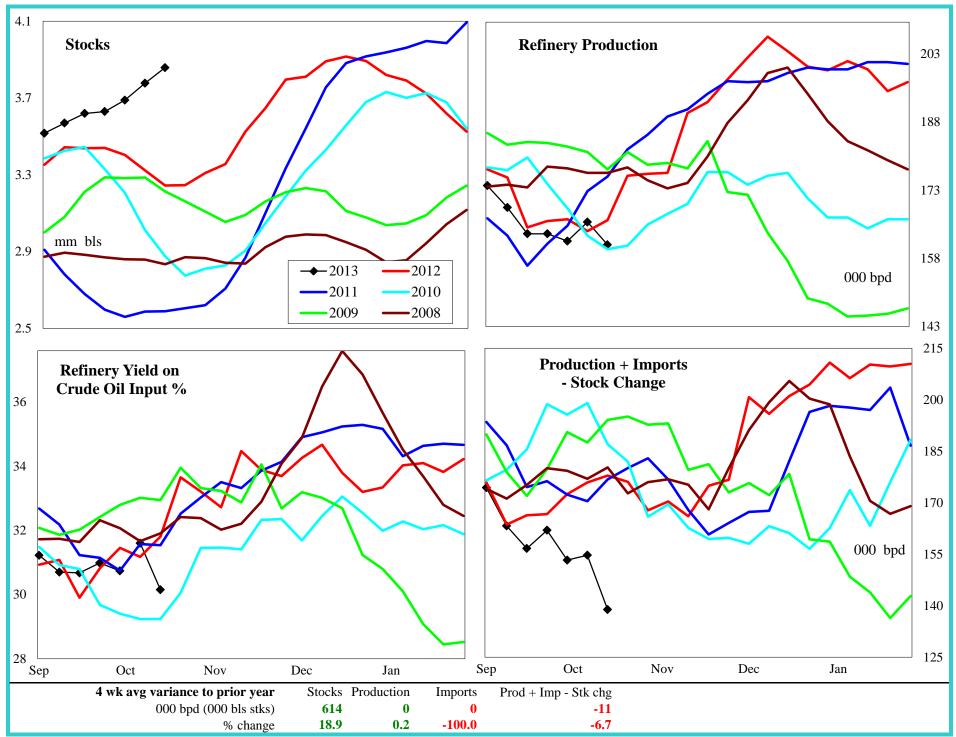
## **PADD 4 Crude Oil Supply and Refining**



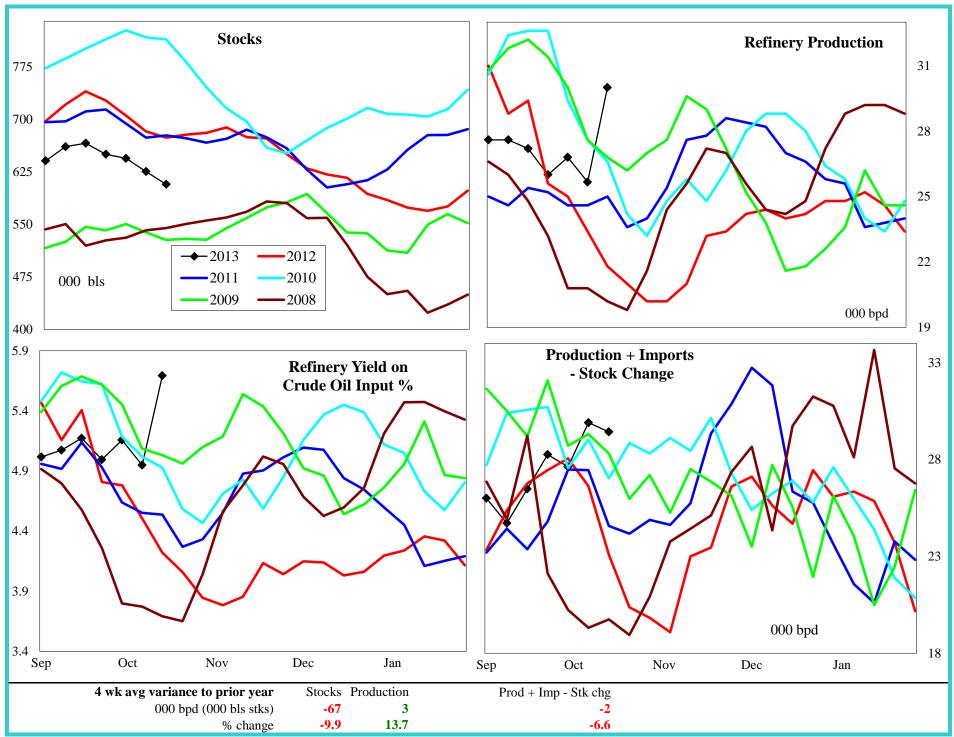
### **PADD 4 Gasoline Supply**



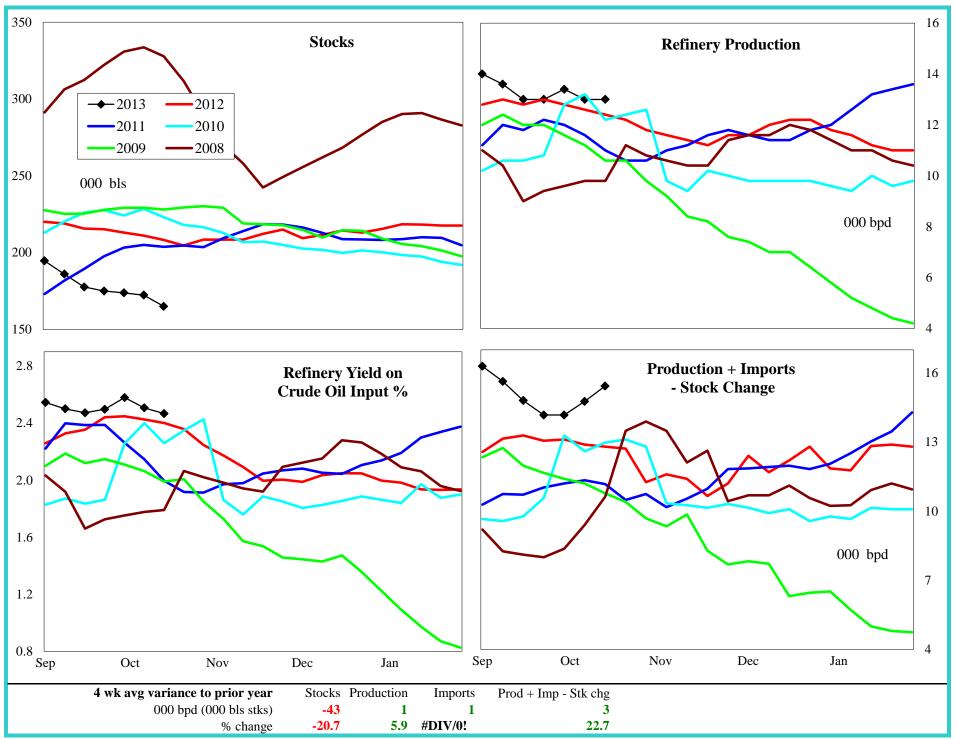
### **PADD 4 Distillate Supply**



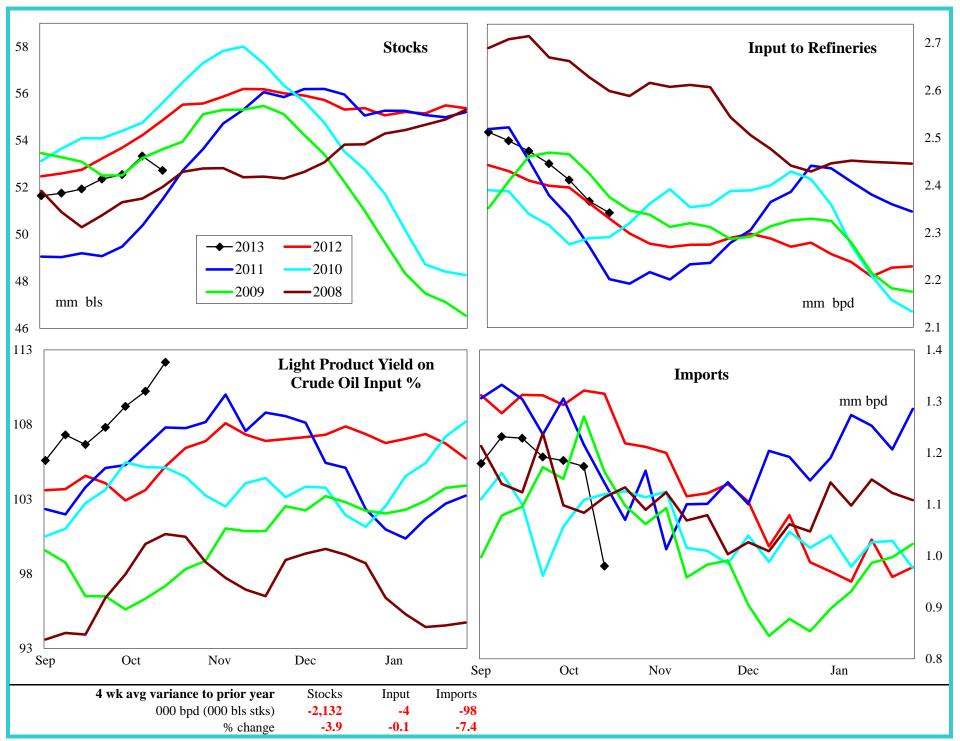
### **PADD 4 Jet Fuel Supply**



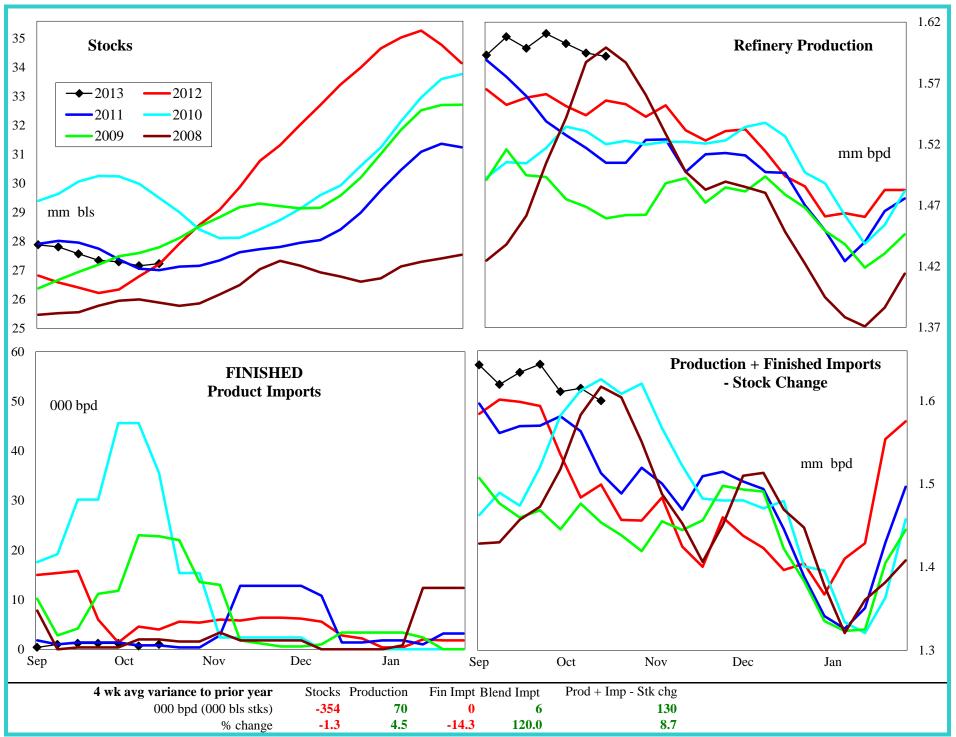
# **PADD 4 Residual Fuel Oil Supply**



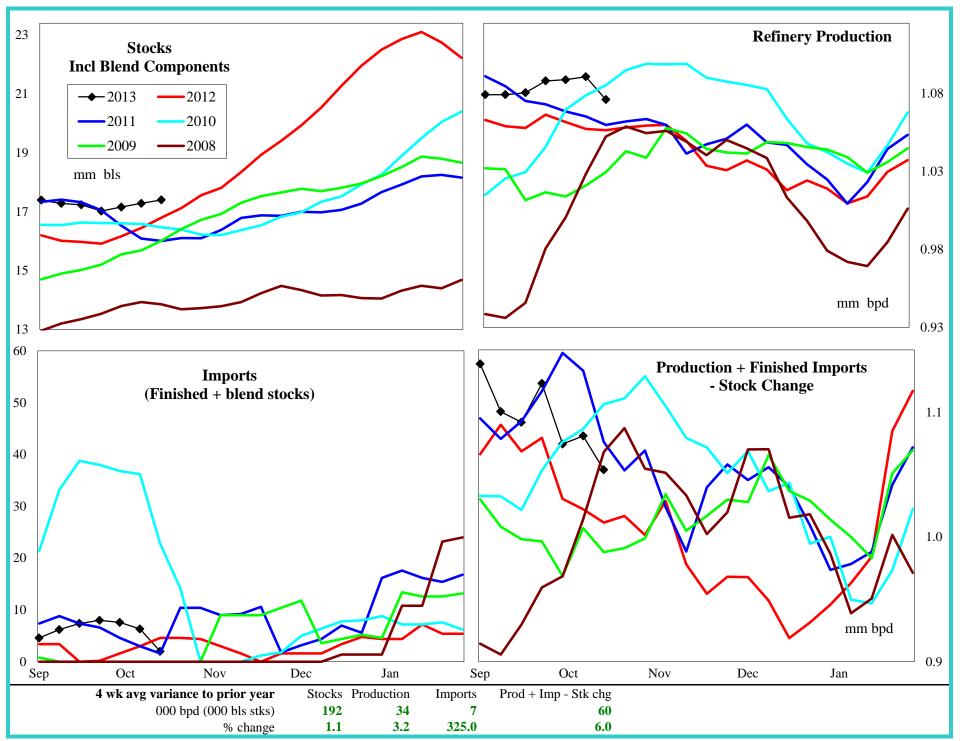
## **PADD 5 Crude Oil Supply and Refining**



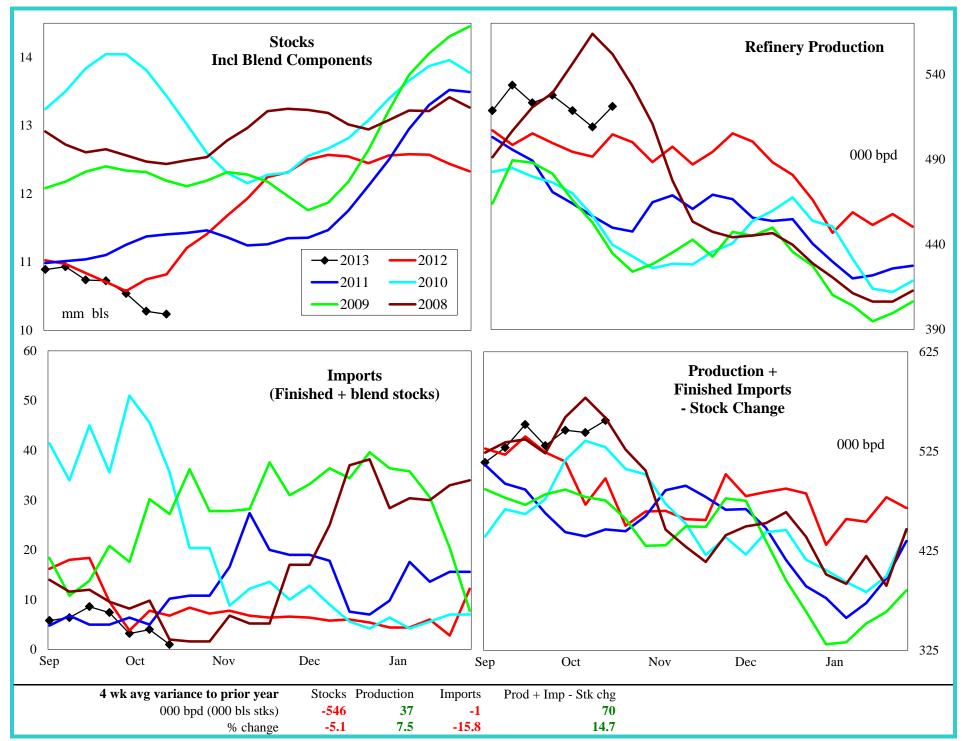
### **PADD 5 Gasoline Supply**



## **PADD 5 Reformulated Gasoline Supply**

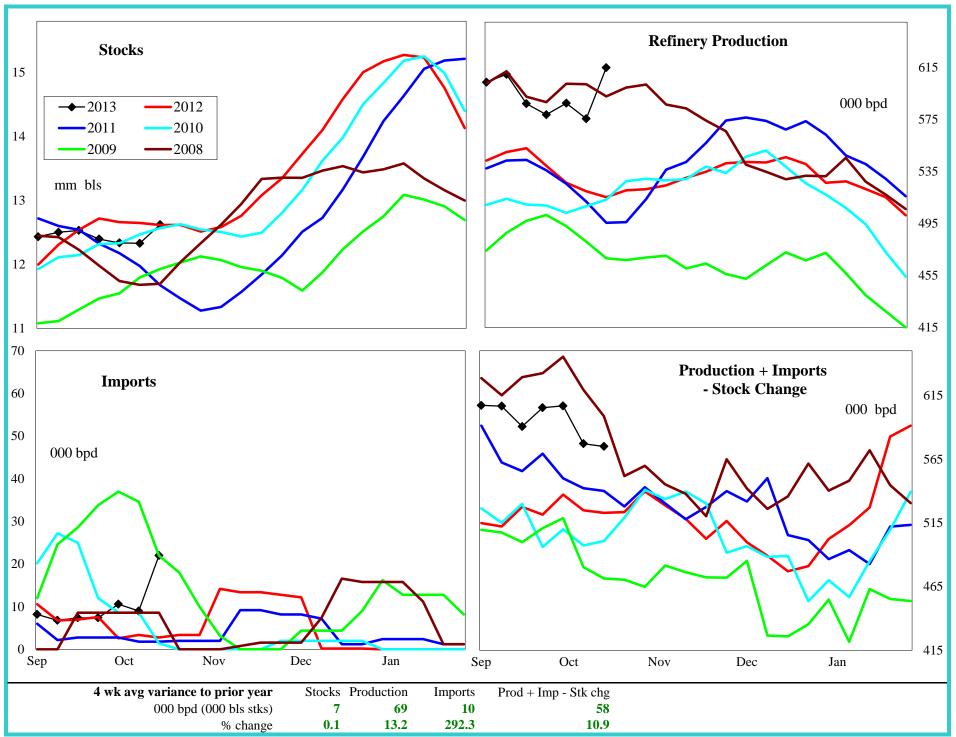


## **PADD 5 Conventional Gasoline Supply**

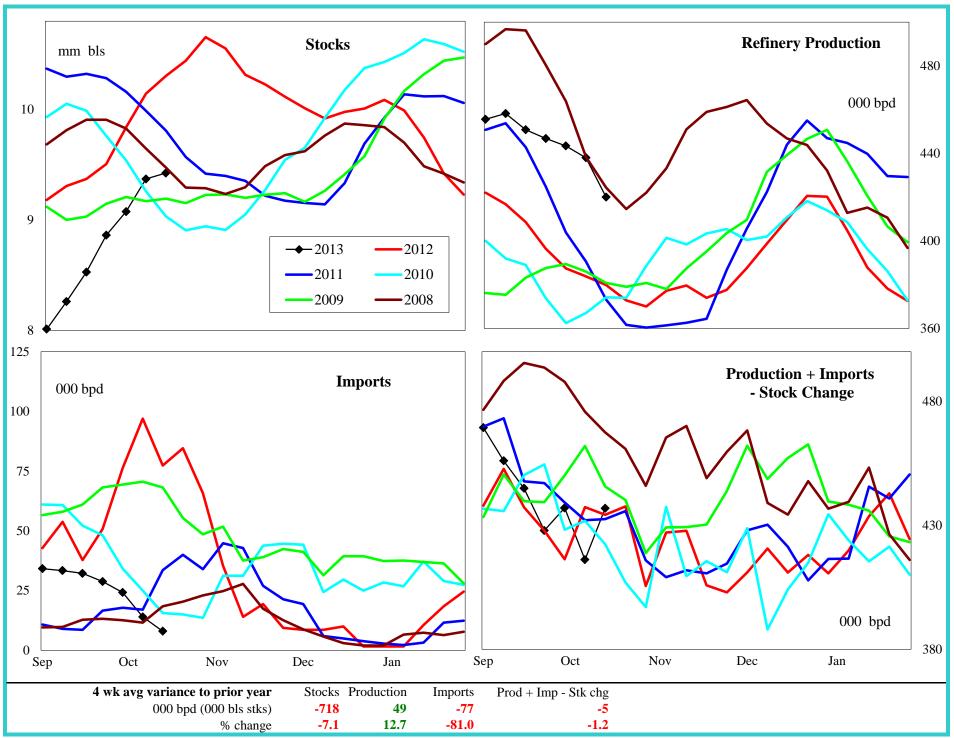


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### **PADD 5 Distillate Supply**



### **PADD 5 Jet Fuel Supply**



## **PADD 5 Residual Fuel Oil Supply**

