



Surface Transportation Board

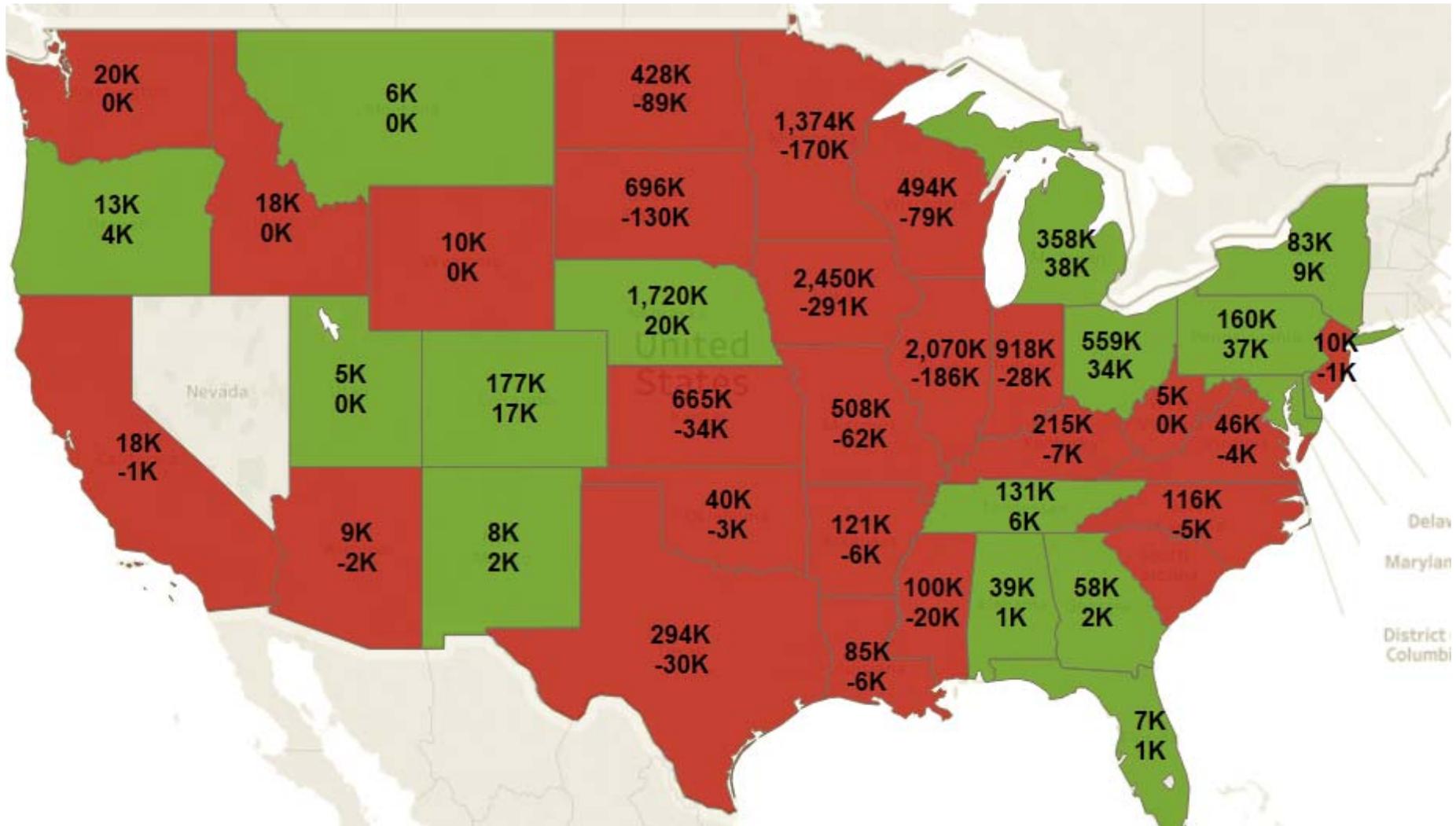
Rail Energy Transportation Advisory
Committee Meeting

Biofuels Segment Update

October 19, 2017

SINCE
1851

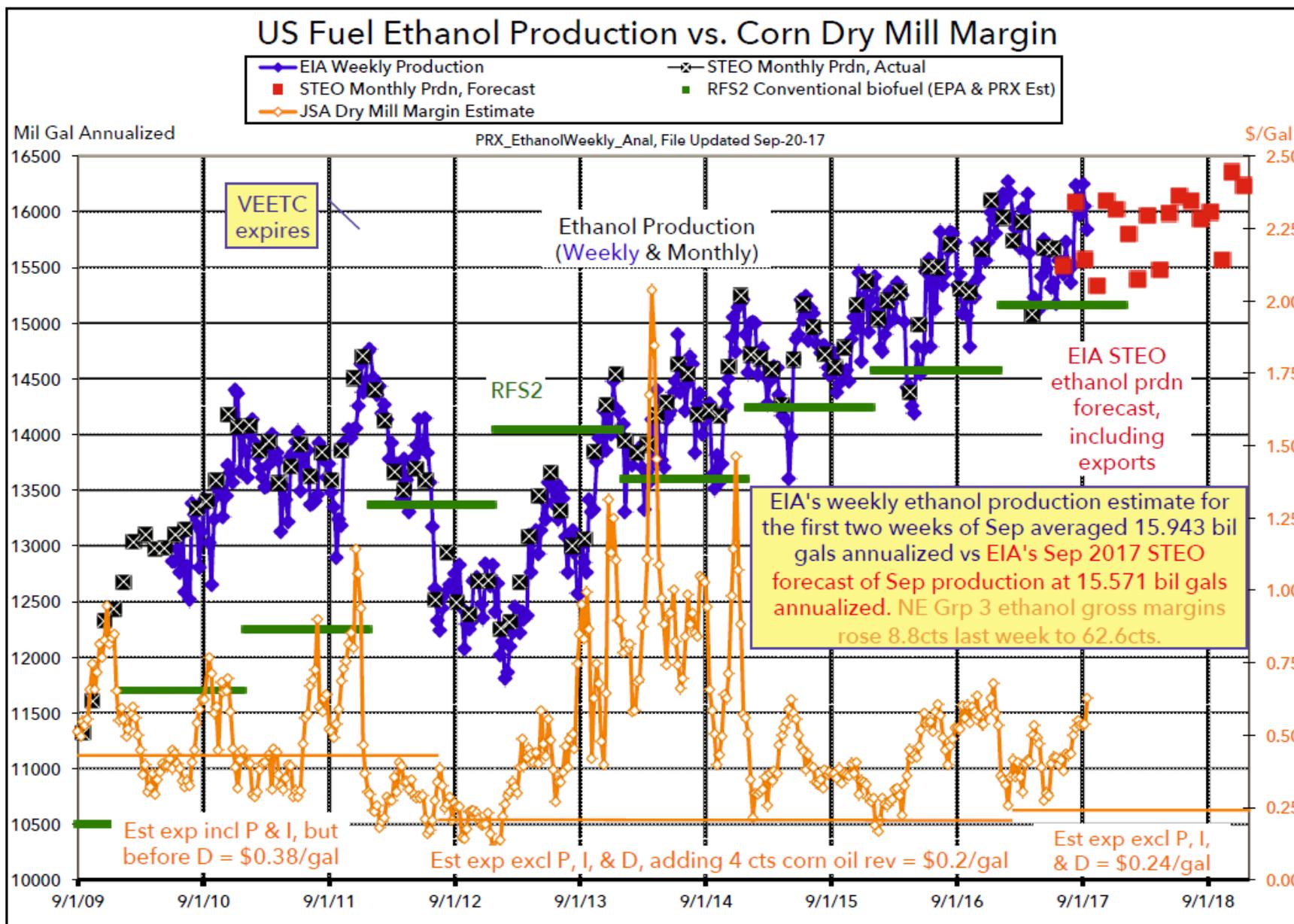
U.S. CORN PRODUCTION 2017 VS 2016



- Production is down this year due to reduced acres and drier conditions in IA

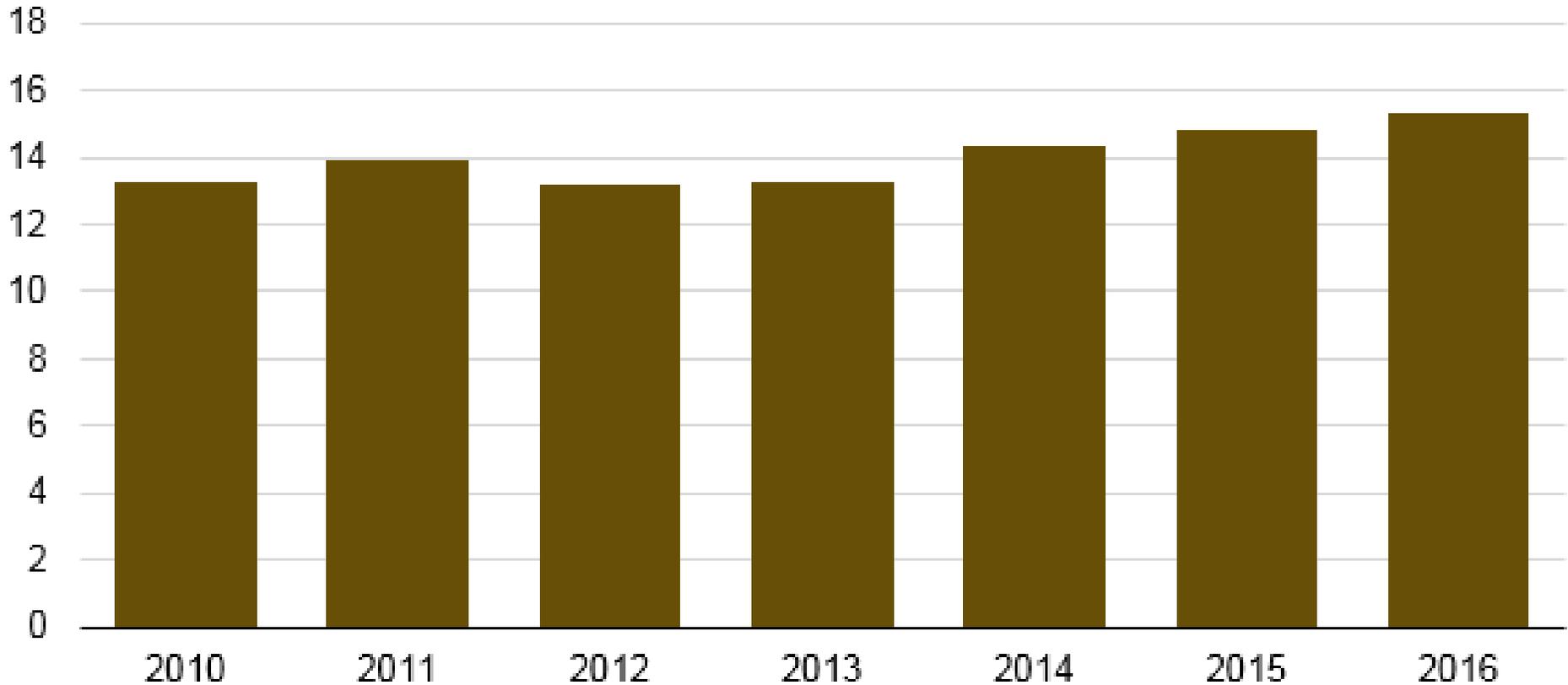
| | 2015 | 2016 | 2017 |
|----------------------------|--------|--------|--------|
| Planted (Mln Acres) | 88.0 | 94.0 | 90.9 |
| Harvested | 80.8 | 86.7 | 83.5 |
| Bushels / Acre | 168.3 | 174.7 | 169.5 |
| Carry-In(Mln Bu) | 1,731 | 1,737 | 2,370 |
| Production | 13,602 | 15,148 | 14,153 |
| Imports | 67 | 55 | 50 |
| Total Supply | 15,400 | 16,940 | 16,573 |
| Feed / Residual | 5,120 | 5,425 | 5,450 |
| Food/Industrial | 6,646 | 6,920 | 7,000 |
| Exports | 1,898 | 2,225 | 1,850 |
| Total Use | 13,664 | 14,570 | 14,300 |
| Carry-out | 1,737 | 2,370 | 2,273 |

- Ethanol is expected to use 5.475 Billion bushels of corn in 2017-18
- Record corn crops in South America have reduced export demand in US



Source: PRX

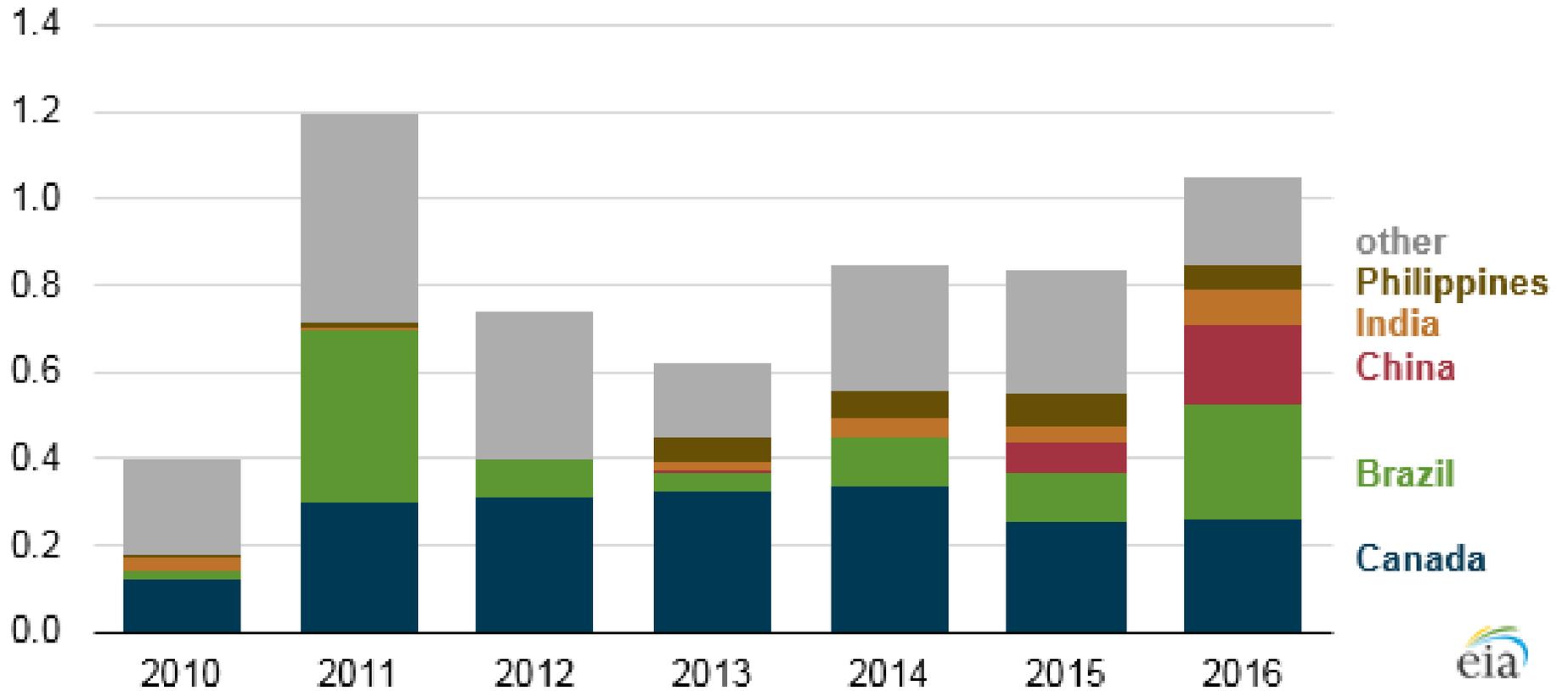
U.S. ethanol production (2010-16)
billion gallons



Estimated 2017 production is 15.8-16.0 billion gallons.

Estimated domestic use 14.5 billion gallons. Estimated export projections 1.2 billion gallons.

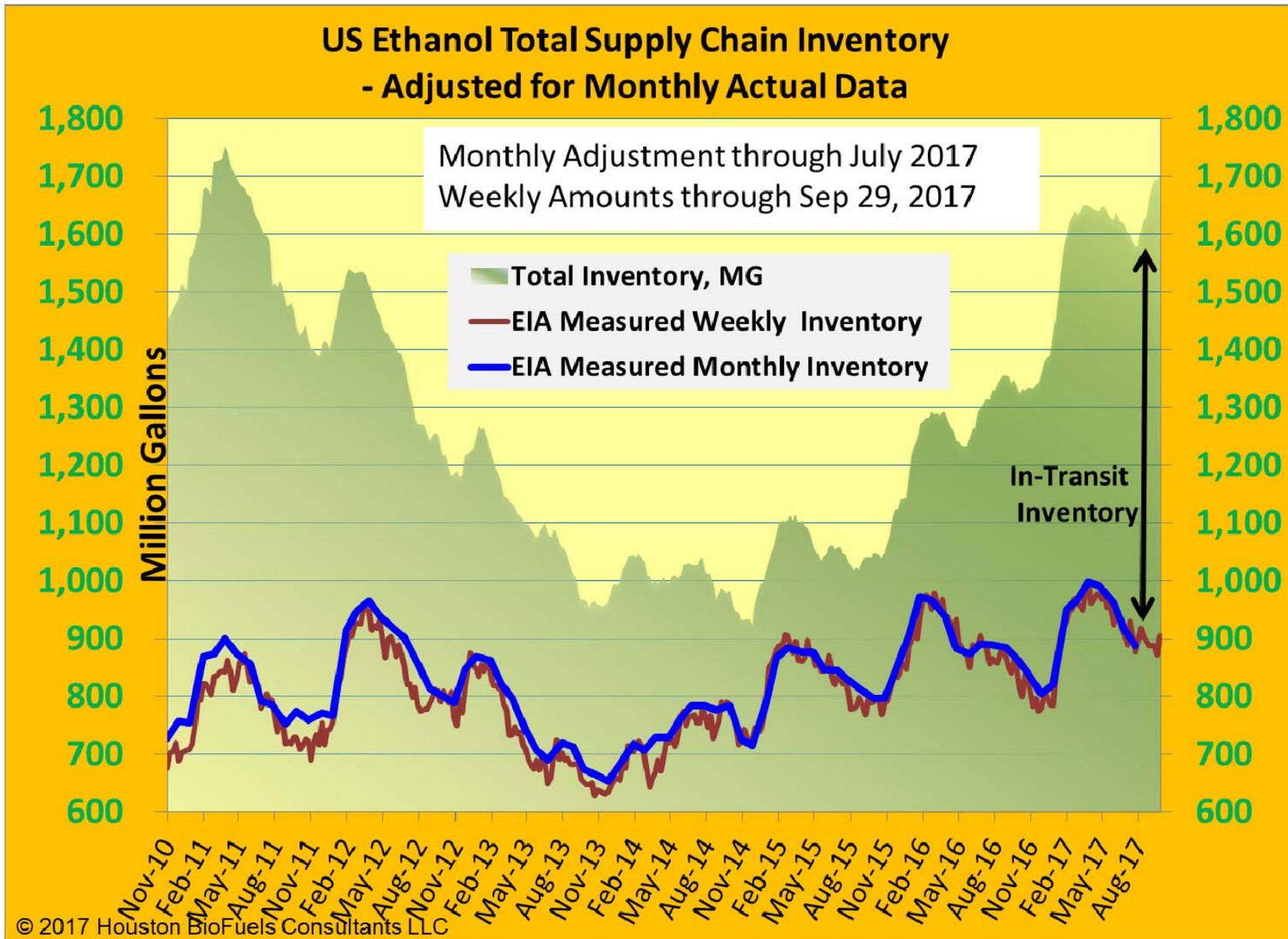
Annual U.S. exports of fuel ethanol (2010-16)
billion gallons



2016 Ethanol Exports at 1.1 bill gallons. Projections for exports in 2017 at 1.2 bill gallons.

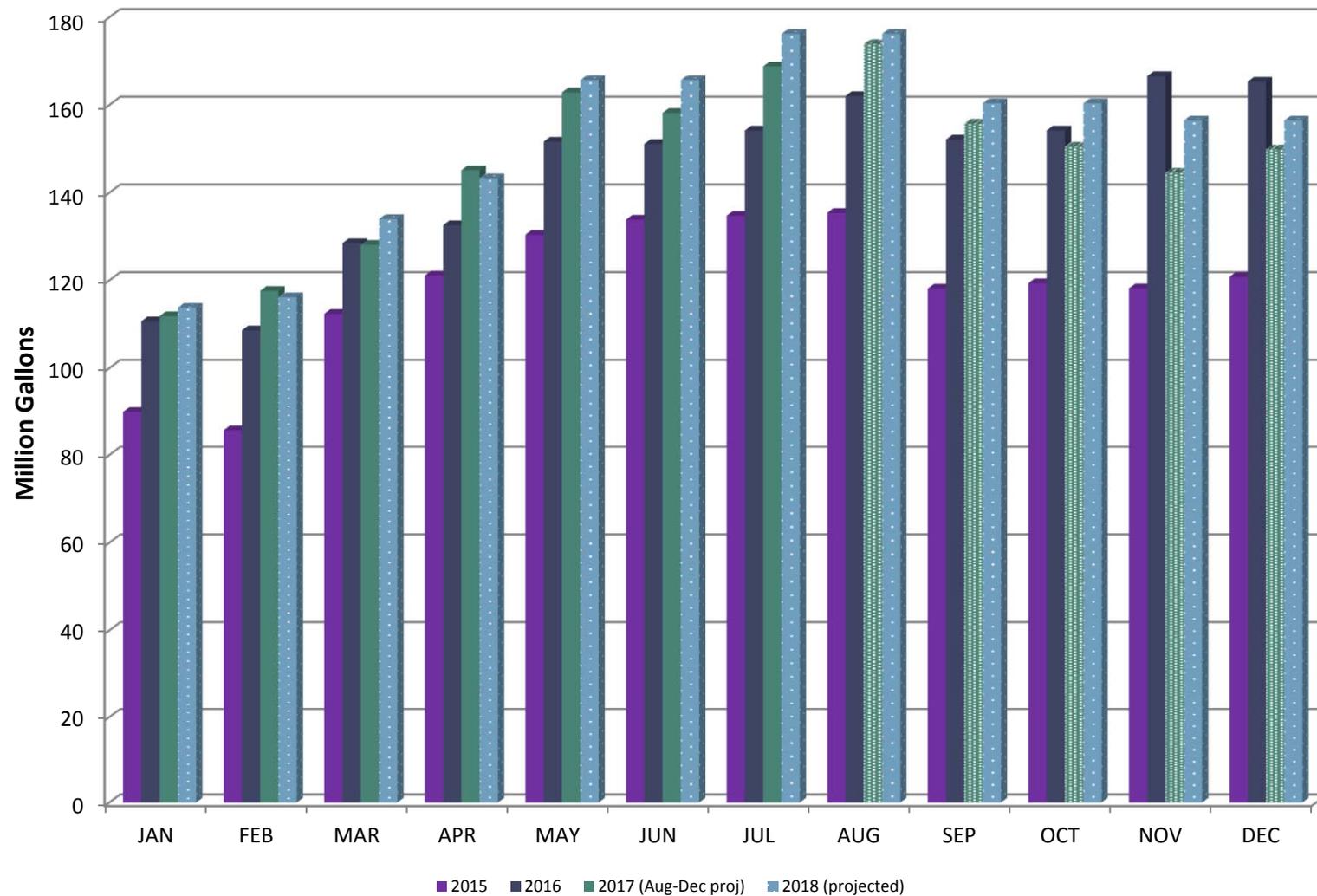
Need exports to balance growing production of 16.0 bill gallons with domestic consumption levels at 14.5 bill gallons

US ETHANOL TOTAL SUPPLY CHAIN INVENTORY



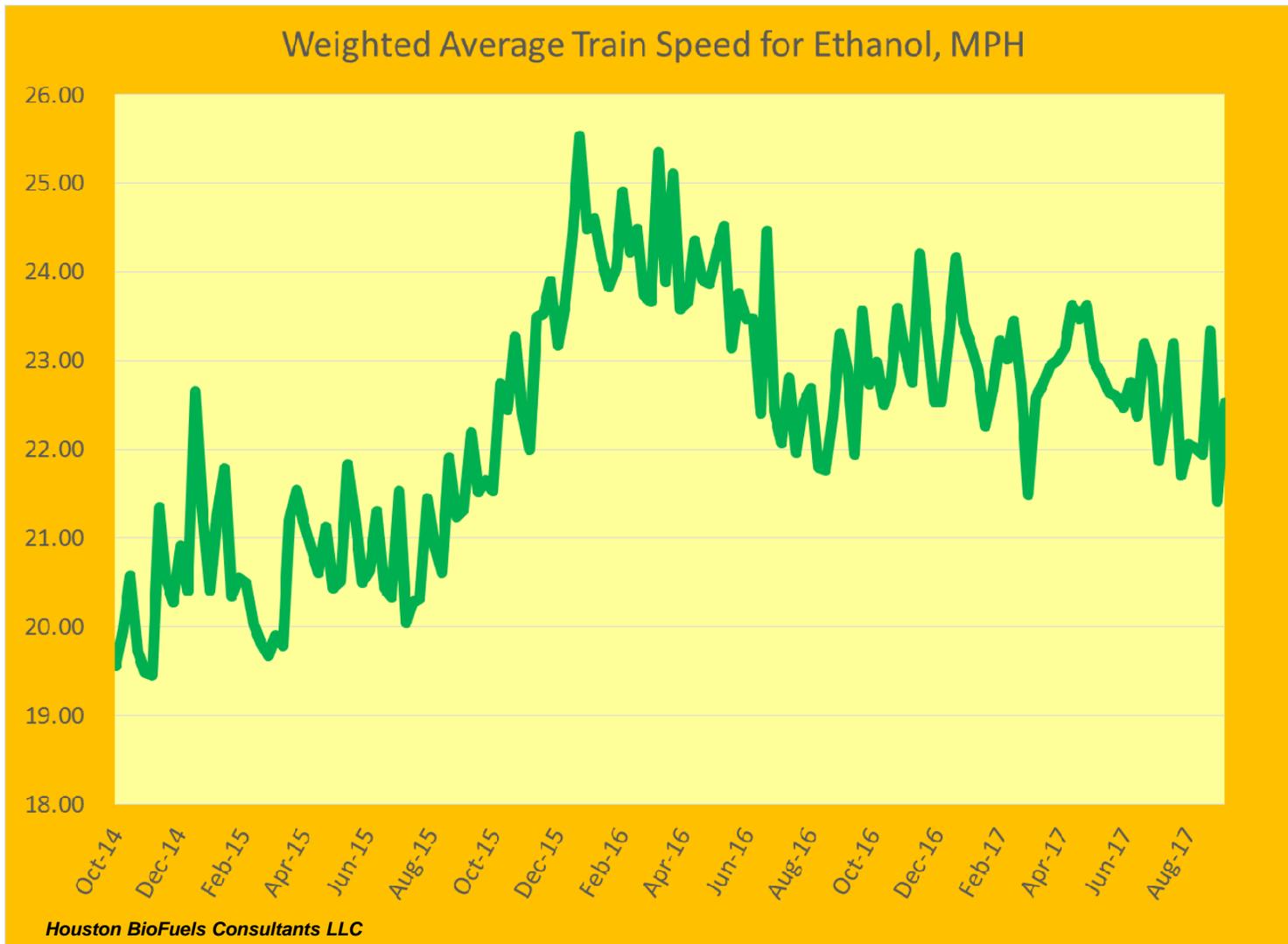
US BIODIESEL PRODUCTION

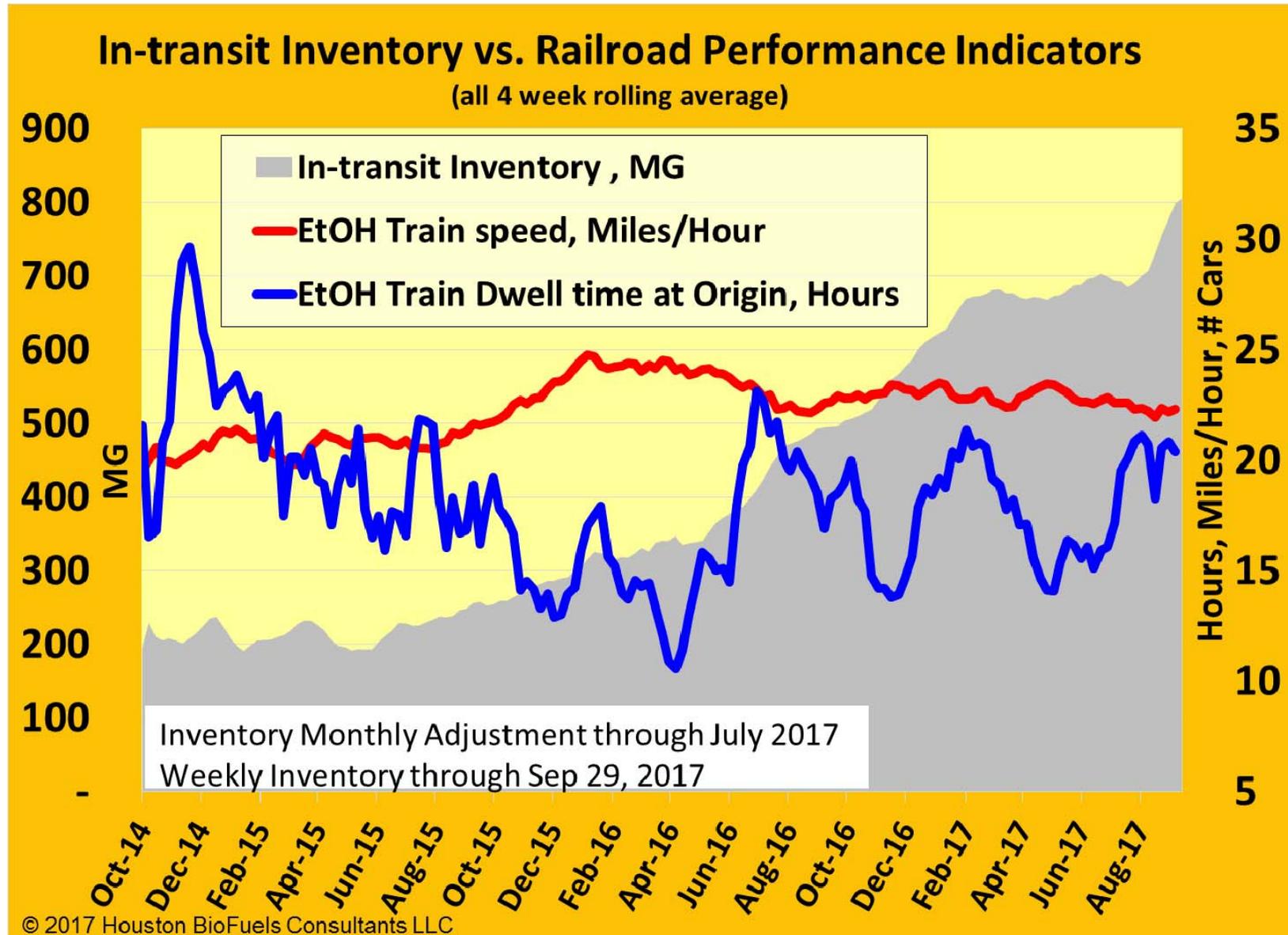
Monthly US Biodiesel Production



- 2017 Production estimated 1.77 Billion Gallons (1.02 Bil thru July)
 - 2018 Production forecast 1.83 Billion Gallons
- 2018 Biodiesel mandate set at 2.1 Billion gallons, Total Advanced Biofuel Mandate proposed at 4.2 Billion, but EPA considering reductions
- Biodiesel components: Soyoil 46%, Canola 10%, Corn Oil 10%, Other (animal fat) etc. 34%
- Tax Credit Expired 12/31/2016. Unlikely any form of credit passes prior to late 2017; anyone's guess whether producer or blender
- Things to watch for:
 - 2018 Mandate levels to be finalized Nov. 30
 - Tax credit debate (likely Nov/Dec)
 - Anti-dumping case; restrictions on certain imports may temporarily increase demand, but lead EPA to reduce mandate

WEIGHTED AVERAGE TRAIN SPEED FOR ETHANOL, MPH





Ethanol Market

- E-15 demand is benefitting from USDA infrastructure grants but slow. Need the 1 PSI waiver on Reid Vapor Pressure (RVP) to allow higher blend levels
- Exports must clear record weekly production to balance S/D. Estimate for 2017 at 1.2 bill gallons
- Ample stocks of corn and better than expected margins will encourage high run rates
- Flat growth of gas consumption has limited ethanol blend demand
- Improved Plant efficiency is contributing to excess supply
- Tariff duties into China (90%) have hurt DDG prices and export volume. Vietnam has recently reopened, removed import tariff, however there are tighter requirements that add expense
- Rumored changes in RFS obligated parties and export RVO's are still being reviewed

Rail Comments

- Service has been a non-issue for most Class 1 carriers since last meeting but starting to see potential delays surfacing in the Chicago gateway on interchanges between carriers for various reasons, crews, power etc.
- Although there are less surplus resources available there appears to be ample resources, locomotives and equipment, while crew availability remains to be seen
- Carriers continue to push rates, most all commodities, which have prompted shippers/receivers to seek alternative routes, truck, barge etc.

- Continue to see frequent FRA inspections on ethanol tank cars.
- Change out of legacy DOT 111 tank cars continues with both 117J and R tank cars coming on line. Estimate today would suggest 6,500 cars, 18-20%, of DOT 111 cars have been changed out as of 2nd quarter 2017
- ECP brake application studies still in review process. Must be ruled on by 12/4/17
- Requalification of DOT 111 underway in order for these cars to remain in service
- Repair facility capacity remains tight
- Tank car lease prices seem to have stabilized but at lower price levels than they were at 18 to 24 months ago