

Minutes of November 16, 2021

Surface Transportation Board

RETAC Meeting

1:00 PM EDT November 16, 2021, ZOOM meeting

Meeting commenced at 1:05 PM with opening welcome by **Chairman Martin Oberman**, followed by remarks from **Vice Chairman Robert Primus, and Members Patrick Fuchs, Ann Begeman and Michelle Schultz**.

Committee Members in attendance:

Brian Fuller, Southern Co.- Committee Co-chair

Dan McLaughlin, Union Pacific-Co-Chair

Daniel Sabin, IANR – Secretary-Treasurer

Ginger Adamiak, KCS

Jeff Eliason, CHS

Steve Ewers, Norfolk Southern Railway

Mark Huston, Louis Dreyfus Corp.

Lee Johnson, Hess Corporation

Adam Longson, CSX

Ed McKechnie, EMCOO

Greg Mitchell, Trinity

Phillip Obie II, Santee Power

James Rader – Greenbrier Management

Anthony Reck, Paducah & Louisville Railway

Emily Regis, Arizona Electric Power Coop

Bette Whalen, Lower Colorado River Authority

Doug Noem, South Dakota Corn Growers Assoc.

STB staff in attendance:

Kristen Nunnally, RETAC, DFO

Lisa Novins

Matt Cross, ATC Productions

Adam Kress

Janie Sheng

Ellen Erichsen

Christopher Diamond

Elizabeth McGrath

Shelia Perry

Rebecca Morrow

Opening remarks by Brian Fuller and Dan McLaughlin

Industry Segment Updates

Ed McKechnie provided the rail performance update:

Narrative with prepared slides:

Overall rail traffic trends:

- In the first ten months of 2021, total U.S. rail carloads were up 7.5% over the same period in 2020 but down 8.4% from the same period in 2019.

- Rail volumes are often closely correlated with the state of the economy. Rail volumes this year benefited from strong GDP growth in the first half of the year, and then slowed somewhat in the third quarter as GDP growth slowed.
- Over the past 20 years, services have accounted for a larger share of the overall U.S. economy, creating a headwind that railroads had to face.
- 15 of the 20 carload categories the AAR tracks had year-to-year gains this year through October, led by coal, metallic ores, chemicals, primary metal products and grain.
- The biggest decline so far this year has been in petroleum and petroleum products.
- Change in U.S. Rail Traffic Jan-Oct 2021 vs. Jan-Oct 2020 is up by 692,732 carloads, or 7.5%. Total carloads excluding coal is 407,672, or 6.0%. Intermodal is up 883,962 units, or 8%.
- In 2021 through October, U.S. intermodal volume was 11.89 million units, up 8% over last year; up 3.3% over 2019; and the second-best January-October total in history (behind 2018).
- In many weeks in late 2020 and the first half of 2021, U.S. railroads were handling close to 300,000 containers and trailers.
- In recent months, U.S. rail intermodal volumes have fallen as railroads, rail customers and other supply chain participants have become bogged down amid continuing challenges.
- The share of U.S. electricity generated by coal has plunged over the past decade for a variety of reasons.
- Coal remains the single highest volume carload commodity carried by the railroads, but coal is expected to face severe market challenges going forward. Railroads will face these challenges head on and will continue to work hard to serve their coal customers as safely and reliably as possible.

Vice Chairman Primus asked about the trend for 2nd Half 2021. Tony Reck of P&L commented that a large Illinois Basin coal mine is down, pulling 15 million tons out of the supply.

McKechnie continued:

- Well over 90% of U.S. coal consumption is for electricity generation.
- Coal's decline means that the share of U.S. electricity generated by coal delivered by rail has plunged from about 35% in 2005 and 2006 to about 13% last year.
- For 2021 through October, U.S. railroads originated 2.75 million carloads of coal. That is up 11.6% over the same period in 2020, but otherwise coal carloads are lower than any comparable period in AAR records dating back to 1988.
- According to the Energy Information Administration, in 2021 through August, U.S. electricity generation from coal was 27% higher than in the same period in 2020.

Ginger Adamiak reported that coal is currently up 15% over last year.

McKechnie continued:

- According to EIA, coal accounted for 23% of U.S. electricity generation in 2021 through August, compared to 19% for the same period last year. Coal consumption for electricity in 2021 through August was 354 million tons, up 24% from the same period in 2020, but 2020 and 2021 are still the lowest-volume years for coal consumption since the mid-1960's

- The bump up in coal this year is largely because natural gas prices are close to double what they were last year.
- The increase in natural gas prices this year has not led to an appreciable increase in U.S. natural gas output.
- The current administration's views on the extraction and consumption of fossil fuels is very different than the prior administration. Energy suppliers have been under pressure for years, with a dramatic drop in coal production and consumption.
- Today, incentives for investment in coal plants and coal mines are close to zero and have been that way for a long time. The rail experience is that this lack of investment has led to operational issues at some coal suppliers, especially thermal coal. There have been Covid related outages at coal mines as well.
- Manpower is one of the greatest challenges to the railroads. Covid related policies have made this worse.
- Challenges related to policy, patchwork regulation and decisions to reduce stockpiles have been compounding factors at some coal plants.
- A large amount of coal-based generation has either been switched permanently to natural gas or closed completely.
- Continued social and political pressures mean mines and coal-fired power plants have little incentive to reinvest.
- The EIA reported that U.S. coal exports in 2021 through August were 57 million tons, up 28% over last year at the same time. Coal exports are erratic.
- Benchmark crude oil prices are more than \$80 per barrel, which is 60% higher than at the beginning of this year and the highest since the fall of 2014.
- As with natural gas, higher prices have not led to gains in U.S. crude oil output. They have led to sharply higher prices at the gas pump for consumers and for railroads, diesel fuel.
- One could argue that the U.S. had become complacent with cheap gas and oil and higher prices like today's are a wake-up call. It remains to be seen what steps, if any, policymakers will take regarding this. In the meantime, rail crude oil carload volumes continue to be much lower than they once were.

Supply chains are a mess.

- Global freight supply chains are complex systems driven by decisions, actions, and capacity of a wide variety of global and domestic actors, including steamship lines; truckers; railroads; pipelines; ports; drayage providers; owners of truck chassis, shipping containers and warehouses as well as manufacturers, wholesalers and retailers of goods.
- If bottlenecks are to be avoided and if freight is to be delivered safely, efficiently, and when expected, then all stakeholders must do their part to maintain a consistent flow of freight at every step of the process.
- When parties overextend their capacity in shipping and receiving, the overall supply chain can become congested and break down. This is what is happening today. Once things get clogged up, it can take a long time to get unclogged. Railroads clearly have a role to play and are not powerless to take steps on their own, but what is happening is largely beyond the control of railroads.

- The past 18 months have seen an unusually high number of severe and often unprecedented events that have led to huge supply chain dislocations, including:
- Impact of Covid continues
- Continued labor shortages at ports, trucking firms, warehouses, manufacturers, retailers and elsewhere negatively impacting the ability to turn containers and leading to a global shortage of containers and back ups at import receiving warehouses.
- A severe shortage of drayage and long-haul truck capacity; chassis; and warehouse space.
- Container and container ship availability concerns that are driving many firms to purchase large quantities of goods that may not actually be needed for months, thereby further clogging supply chains.
- A variety of extreme weather events, including wildfires, hurricanes, flooding and severe winter storms. It can take weeks or even months for railroads and their supply chain partners to recover from these weather events.
- A nearly week-long blockage of the Suez Canal in March 2021 that prevented hundreds of ships from navigating the canal, creating delays and congestion that required several months to clear.
- This started when the pandemic first hit hard in spring 2020 and U.S. consumer spending plummeted. Soon, the economy recovered much of what it lost.
- Consumers increasingly chose to spend money on goods they otherwise would have spent on services. By June 2020, consumer spending on goods was higher than it was in January 2020, and it kept trending higher from there, meanwhile consumer spending on services lagged until June 2021 where it was in January 2020.
- Few firms saw these spending patterns coming and even fewer were prepared for them.
- Retailers and manufacturers tried but were unable to keep pace with demand.
- By spring 2021, retail inventories had fallen to record lows, and they remain close to record lows today.
- Rail terminals can't function effectively if containers are not cleared. There is some flex within the rail system to absorb and accommodate limited spikes and volatility, but the massive imbalances between freight coming in and freight going out are not sustainable.
- Rail terminals are not designed for container storage. Rail terminals are all about throughput. The same is true for rail terminals that process non-intermodal shipments.
- Because of the highly interconnected nature of rail networks, an event at one area of the rail network can have serious repercussions hundreds of miles away. The problems experienced at intermodal terminals are negatively impacting the ability to serve all rail customers.
- Labor shortages are everywhere in the economy. A major problem is several million people who were part of the labor force before the pandemic have not yet returned to the labor force.
- In October 2021, 58.5% of the working population working age had a job. Immediately before the pandemic, it was 61.1%, and now the Department of Labor estimates that as of September 2021 there were 10.4 million job openings throughout the U.S. The comparable figure in January 2021 was 7.1 million.
- Labor shortages are directly responsible for many of the supply chain problems. Job openings in the Transportation, Warehousing and Utilities sector is double today compared to prior to the pandemic.
- The same story is with the Manufacturing sector—double that before the pandemic.

Some of the steps railroads are taking:

- Re-routing traffic to less busy locations.
- Reopening shuttered terminals.
- Financial incentives to clear terminals.
- Creating steel-wheel interchanges instead of requiring cross-town drayage.
- Returning locomotives to active fleets.
- Providing network and facility updates, service advisories, and maintenance overviews to customers.
- Hiring additional employees at locations that need them, but this is as difficult for railroads as it is for firms in every other sector of the economy.

Adding more trains not always the best thing to do.

- For railroads, getting unclogged must be the priority. Returning fluidity to rail networks will take time and will require the cooperation of all stakeholders in the supply chain.
- Enhanced cooperation by all parties in the supply chain is clearly needed.
- Railroads work closely with their customers, their transportation partners, and others on an ongoing basis to understand and meet expected service needs.

Vice Chairman Primus asked about longer trains slowing down velocity. Response was the most critical element is crew availability. Vice Chairman Primus said that his observation is longer train lengths are adding to the problem. Co-Chair McLaughlin responded that expected volumes of coal caused major capital spending and that new capacity was in the wrong regions when the coal volumes reduced instead of the expected increase.

Ed McKechnie said the crew shortage is the most disrupted element.

Chairman Oberman said that layoffs in the past may have convinced employees that the railroad job may not be a stable place to return to.

Ed McKechnie responded that the railroads are a barometer of changes in the economy. Policy changes disrupt the railroads' ability to be responsive.

Emily Regis commented that coal train sets are being parked. Communication between the railroads, mines and utilities are day-to-day and long term.

Dan McLaughlin indicated that more discussion regarding the practices of doubling up on trains is ongoing.

Patrick Fuchs commented on growing dwell time in the data. Ed and Dan said that they would follow up.

Railcar Segment Update

Greg Mitchell from Trinity provided the Railcar Industry Segment Report

Freight Car Activity

Freight car orders are now outpacing deliveries while the tank car backlog continues to decrease.

Strong tank car orders commencing in 2018 resulted in both increased deliveries and backlog of cars to be delivered with few cars ordered by Q-2 2020 and a backlog reduced to under 13,500 cars.

- Freight car orders were 13,626 in Q-2 2018 and at 7,901 in Q-3 2021
- Deliveries were 11,143 in Q-1 2018 and at 6,173 in Q-3 2021
- Backlog was up to 45,711 in Q-4 2018 and at 24,326 in Q-3 2021
- Tank car orders were 11,316 in Q-3 2018 and at 706 in Q-3 2021
- Deliveries peaked at 6,358 in Q-4 2019 and down to 2,125 in Q-3 2021
- Backlog was at a high of 35,452 in Q-1 2019 and down to 13,463 in Q-3 2021

Railcar Delivery Outlook Expected to improve in 2022 and 2023 after declining the last two years.

- Limited orders in recent quarters is driving the lower 2021 delivery forecast
- Freight cars are expected to be the primary driver of deliveries over the next few years

The storage rate of coal related cars has dropped in recent months

- Coal carloads are up 4.2% year-to-date through Week 42 compared to the same time 2020
- Open hoppers and gondolas are at the lowest recorded storage rates since 2018
- Current Estimated Fleet Sizes:

Coal Gon about 95K

Coal Hopper about 90K

- Estimated 2019 Fleet Sizes:

Coal Gon about 112K

Coal Hopper about 103K

- Most coal cars are estimated to be between 11-30 years old.

Storage of Covered Hoppers and Tank Cars have been slowly declining in recent months

- Covered hopper storage has been declining, but is still well above historically normal levels
- Tank car storage continues to decline gradually and is only 7% above pre-pandemic rates.

Liquified Natural Gas by Rail

PHMSA, June 2020

- The Pipeline and Hazardous Materials Safety Administration (PHMSA) and the FRA issued a rule allowing the transport of liquified natural gas (LNG) in DOT-113 specification tank cars with enhanced outer tanks of thicker carbon steel
- Enhanced liquefaction capacity and lack of pipelines could support LNG-by-rail growth

NPRM, November 2021

- PHMSA and the FRA proposed to amend the Hazardous Materials Regulations to suspend the authorization of LNG-by-rail pending either the completion of separate rulemaking or June 30, 2024, whichever comes first

Crude Oil Fleet Size & Composition

	Total Fleet	% DOT 111	% CPC-1232	% 117/120
2013	40,333	54%	46%	0%
2014	50,803	33%	67%	0%
2015	48,920	14%	82%	4%
2016	24,865	3%	81%	16%
2017	21,569	1%	74%	25%
2018	25,470	0%	54%	46%
2019	32,361	0%	27%	73%
2020	26,377	0%	16%	84%
2021	13,806	0%	7%	93%

Ethanol Fleet Size & Composition

	Total Fleet	% DOT 111	% CPC-1232	% 117/120
2013	27,109	98%	2%	0%
2014	30,734	93%	7%	0%
2015	34,910	88%	11%	1%
2016	36,069	81%	10%	10%
2017	38,885	66%	9%	25%
2018	37,676	50%	8%	42%
2019	36,970	34%	5%	62%
2020	36,580	26%	3%	70%
2021	35,704	20%	3%	77%

Other Flammable Liquid Fleet Size & Composition

	Total Fleet	% DOT 111	% CPC-1232	Other	% 117/120
2013	40,225	68%	8%	24%	0%
2014	40,953	64%	12%	23%	0%
2015	41,905	64%	15%	21%	0%
2016	42,561	59%	18%	19%	4%
2017	42,856	52%	22%	18%	7%
2018	43,321	45%	24%	16%	14%
2019	53,624	42%	26%	13%	19%
2020	59,966	35%	24%	10%	30%
2021	58,133	33%	22%	9%	36%

DOT 117J & DOT 120J Fleet Growth

June 2021– Fleet size increased by 412 cars

DOT 117R Fleet Growth

Q-2 2021 – Fleet size increased by 1,346 cars, to 36,550 from January 2020

Over 50,000 Tank Cars Required to Replace/Retrofit to DOT-117J or retrofitted to DOT-117R by 2029

Commodity/Car Type	2023	2025	2029	Total
Ethanol All DOT-111 Non-Jacketed CPC-1232	7,982			7,982
Crude Oil, Ethanol Jacketed CPC-1232		1,066		1,066
Other Flammable Liquids Packing Group I, II, & III			29,139	29,139
Total	7,982	1,066	29,139	38,187

Flammable Liquid Fleet/DOT 117 Tank Cars

Fleet Size	107,634
DOT-117 Built	85,413
DOT-117 Inservice	61,140
DOT-117 Fleet Utilization	72%

Ethanol/Biofuels Segment Update

Mark Huston from Louis Dreyfus Company provided the Ethanol/Biofuels Segment Update:

US Corn Supply and Demand charts for years 2018-2021:

	2018	2019	2020	2021 USDA Est.
Total Supply	16,509	15,883	16,055	16,323
Total Use	14,288	13,964	14,819	14,830
Carry Out	2,221	1,919	1,352	1,493

In millions of bushels

Corn estimated production forecast at 15,062 million bushels but could come in higher than 177 bushels per acre due to better yields in Iowa, Minnesota and Dakotas.

2021-22 total use forecast only marginally higher than 2020-21 with higher ethanol grind and exports with China expected to be lower.

Production expected to rebound in most core states including the Northern Plains, even with lower-than-normal yields. Iowa expects a significant increase after Derecho and drought impact in 2020. Map shown in presentation indicates expect increases in North Dakota, Iowa, Illinois, and Ohio, and decreases in Washington, Idaho, Kansas, Missouri and Wisconsin.

2021/22 stocks-to-use expected to increase but remain on the lower end of the past 20 years.

US Ethanol Production vs. Milling Margin

Ethanol gross margin is up with greater demand since Covid lows. Industry lost 50 million gallons of production capacity with Covid, mostly to outlying locations in Georgia, Arizona, and California, and we

do not expect it will be back. This provides some stabilization for Mid-western production, although December bids are decreasing with increased concerns on Covid related travel.

In-Transit Inventory vs. Rail Performance

- Dwell time in terminals and train speeds influences the ethanol inventory on wheel adjustments, which requires more cars to handle the same volume levels. Four week rolling average in transit ethanol inventory continued to increase. Dwell time has fluctuated with major spikes, but train speeds has been mostly stable. **Destination dwell times on empties would be helpful in seeing the whole picture.**

Monthly Biodiesel Production

Production volumes through climbed in Q-3 and into Q-4, 2021 over First Half, 2021, with production at 1.1 billion gallons.

Renewable Diesel

Renewable diesel production is consuming an increasing level of feedstock and will increase from 1 billion gallons to 5 billion gallons. The predominance of feedstock comes from soybean oil. Renewable diesel is chemically similar, almost identical to petroleum diesel fuel and will replace biodiesel, which is an additive to diesel fuel, not a replacement.

Summary

- Ethanol production increased to pre-Covid levels as has gas consumption.
- Ethanol exports for through July 2021, totaled 870 million gallons. Strong exports projected now through Q-1 2022 at a 1.5-million-gallon pace per month.
- Margins in ethanol have significantly improved from negative levels during the pandemic,
- Lease car supply is very tight and getting very expensive. Federal mandate on DOT 111's approaching in 2023 with over 5,000 cars in ethanol service, creating a tight supply.
- Margins in bio diesel have remained suppressed at about 50 cents per gallon due to feed stock pricing and increases in Renewable Diesel production will result in Non-Integrated Bio Diesel plants having difficulty staying afloat.
- Renewable Diesel will see an additional 1 billion gallon of capacity come online, an increase of 100% over the next couple of years, with a margin break-even point of 25 cents per gallon.
- Rail service is one of the biggest risks facing renewals today. PSR cost cutting has devastated crew base and other rail resources. Customer service is not a priority. Federal mandates on Covid vaccines will be devastating. Federal vaccine mandate looming over all companies with 100 or more employees, could be catastrophic to all industries but especially so to rail carriers.

Vice Chair Robert Primus asked Mark to expand on service issues. Mark responded that New York Harbor and Gulf is now a bit more stable but will continue to be a challenge.

Bette Whalen from Lower Colorado River Authority commented on vaccination mandate options.

Dan McLaughlin from UP said that UP has issues with Labor on testing.

Adam Longson from CSX said that CSX is requiring vaccine for employment. He indicated that the mandate is shrinking the labor work force. There are 10 million job openings with 7 million unemployed. There are many structural demographic issues and perceptions.

Vice Chair Robert Primus said that the lack of truck drivers will increase the need to convert truck business to rail.

Oil Industry Segment Update

Lee Johnson of Hess Corporation presented the Oil Industry Segment Update

Oil Industry Segment Market Environment

- Global production/consumption was balanced except for Q-2 2020 drop in consumption due to the Covid-19 Pandemic. 2020 consumption dropped quicker than production reaction. We are now nearing equilibrium and EIA is forecasting continued growth.
 - Recent WTI Prices climbing:

October 4	\$77.68
October 11	\$80.64
October 18	\$82.62
October 25	\$84.64
November 1	\$84.08
November 8	\$82.21
Current price	\$84.65
 - US Crude Oil Production was at a high of 12.97 million Barrels Per Day (MBPD) in November 2019 to 11.31 MBPD in July 2021, a drop of 11.2%.
 - US Crude Oil Production is tight, with Peak 8.30 MBPD in March 2020, 7.07 MBPD in October 2020, 6 MBPD in February 2021, with 7.41 MBPD in September 2021, down 10.7%.
 - Williston Basin Crude Oil Production and Modal Share, with a total of 1.21 MBPD of production in October 2020 rail market share was 0.18 MBPD. September 2021 production is 1.1 MBPD with rail getting 0.14 MBPD. Pipelines are moving the equivalent of 12 trains per day, with railroads averaging 2 trains per day.

US land rig count from 236 in November 2020 to 445 in October 2021, an increase of 88% this year. Same period Texas from 172 to 304, North Dakota from 11 to 22, and all other from 53 in November 2020 to 119 in October 2021. USA peak 2,019 in December 2011-down 78%; Texas peak 938 in June 2012-down 67.8%; North Dakota peak 203 in June 2012-down 89%.

Production is optimizing output in existing wells with advanced fracking technology.

- Total US and Canadian CBR climbed from 411.91 KBPD in February 2020 to 115.13 KBPD then dropped to 98.39 KBPD in October 2020 peaking at 259.77 KBPD in January 2021, then 165.32 KBPD in January 2021 and 136.1 KBPD in August 2021. An average of 2 trains per day from Alberta to the U.S. There has been no crude by rail to Canada since March 2020.
- Canadian CBR to US destinations dropped from 327.57K BPD in February 2020 to 52.83K BPD in June 2020. Fluctuations since then have been as high as 341.84 KBPD in January 2021 dropping to 136.07 KBPD in August 2021, down 93% from peak 2,061.4 KBPD in November 2014 to August 2021.

Summary

- Global crude oil consumption exceeding production
- Global stock draw projected to end 4Q 2021
- Global production/consumption equilibrium projected for Q-1 2022
- Small global stock build projected through balance of 2022
- WTI and Brent pricing at a seven-year high
- US production is down 12.8% from pre-pandemic levels and rig count is down 78%
- US Southwestern production is sporadic and at low levels
- Bakken crude oil production is down 26.8% from pre-pandemic levels
- Total CBR in the US and Canada down 78% from January to June
- CBR volumes from US to Canada disappeared; Canada to US is down 93.4% from peak
- Lawsuit against Dakota Access Pipeline (DAPL) dismissed in June 2021
Court established a path for plaintiff to file another lawsuit challenging the new EIS planned for 2022
DAPL capacity has been expanded by 189K bbl/d to 750K bbl/d

Utilities Segment Update

Phil Obie of Santee Cooper and Bette Whalen of Lower Colorado River Authority presented the Utilities report:

Inventory Updates

Coal stockpiles continue freefall amid tight coal market conditions

- 2021 coal burn rebounded 23% through 9 months compared to 2020 amid higher natural gas prices and rebound in electricity demand as domestic economic activity returns.
- September NG HH price average \$5.07/MMBtu, \$3.15/MMBtu higher than 2020.
- Total Lower 48 electricity demand is up 2.8% through September (83 TWh)

Railroad Challenges

Based on STB Class I Railroad Data, hiring continues to be an issue on the crew side and has been relatively flat or has declined over the period.

- Utilities are experiencing a wide array of service problems and concerns in various regions across the country, to include:
 - Parked train sets
 - Slow recall on power
 - Crew shortages
 - Increased cycle times
 - Missed monthly nominations
 - Doubling of train sets, causing limited improvement with longer trains
 - Class I Railroads have cut their work forces by 33% over the past 6 years with 28% of those cuts occurring before the pandemic. "They have chosen metrics over service."
 - Hiring during the pandemic has proven to be a challenge.

Inventories are below desired levels

Many utilities implementing coal curtailments/adjustments in dispatcher order to ensure supply for the Winter.

Vice Chairman Primus asked about how the Winter situation is looking.

Phil Obie responded that the Utility Industry is trying to conserve coal inventories, which are at a 5 year low.

Inventory Challenges

Total days of inventory continue to decrease in a period when inventory should be building for the Winter burn. A graph (page 6 of Utility Power Point) showing average burn likely understates some utility stockpiles. Trend is not good.

NCTA/FRCA/NRECA On Time Performance Survey Jan-June 2021

- OTP Survey Data Collected since Aug 2019 to June 2021 – 6-month periods
- 14 Utilities Reported Shipper Perspective Railroad Performance Data
- Round Trip Transit Time (Mine to Plant) Reported Above or Below Plant Forecast
- Monthly Nominations Fulfilled by Carriers: Yes/No
- Railroads Serving Plants Reported: BNSF 48%, UPRR 27%, Multi-RR 21%, NS 4%
- Four Coal Supply Regions – Mine Sources Reported: SPRB 72%, Rockies 14%, NAPP 7%, NPRB 7%.
- Bar chart shown with Nominations Met Majority of Jan-Feb-March, Majority Not Met April-May-June. Also shows Plants reported Missed Trainload Nominations: Jan-20, Feb-24, Apr-5, May-5, June-17.

NCTA OTP survey observations:

- Inconsistency for both shippers and rail carriers during 2020-some rail service improved, some declined, and some remained unchanged.
- Comments from shippers included:
 - “Lack of Crews-Lack of Locomotive Power-Delayed Train Pick-ups-Slow Cycle Times”
 - “Trains being doubled without shipper notification”
 - “Inconsistent and Unpredictable Cycle Times”
 - “Delays with Unloading Trains-Long Delays often during Holiday weekends”
 - “Poor Communication from Railroads and between Railroads at Interchanges”
 - “Accessorial Billings that had to be disputed”
 - “Delayed Pulling of Empty Trains from Plant”
- Modifications may be made to the survey to capture more real time data for shippers

Railroad Segment Update

Co-Chair Dan McLaughlin from UP provided the Railroad Segment Update:

Chairman Oberman; Vice Chairman Primus; Commissioners Begeman, Fuchs, and Schultz; and fellow members of RETAC, good afternoon.

It’s not often that supply chains are on the front page of newspapers around the country, but that’s where we are today.

Global freight supply chains are complex systems driven by the decisions, actions, and capacity of a wide variety of global and domestic actors, including steamship lines; truckers; railroads; shippers; receivers; pipelines; ports; drayage providers; owners of truck chassis, shipping containers, and warehouses; and manufacturers, wholesalers, and retailers of goods. And this complex system is playing out in an ever changing landscape to include regulatory rulings, as we have seen with the vaccine mandate, and a volatile labor market.

If bottlenecks are to be avoided and if freight is to be delivered safely, efficiently, and when expected, then all stakeholders must do their part to maintain a consistent flow of freight at every step of the process.

Intermodal is an excellent example. While most of the commodity groups represented here today travel in non-Intermodal unit trains, the challenges US Rails are experiencing in Intermodal do have an impact on the rail network. Unfortunately, in recent months, because of shortages of warehouse capacity, shortages of dray trucks and drivers, and other issues, many rail customers have faced challenges preventing them from effectively managing freight flows into and out of rail terminals. As a result, uncollected containers have piled up. There is some flex within the rail system to absorb and accommodate limited spikes and volatility, but massive imbalances between freight coming in and freight going out are not sustainable. They create severe problems that have reverberated throughout the supply chain.

Railroads are working hard to help their customers understand the problem, work collaboratively with them, and find creative ways to modify their terminal operations and otherwise maximize efficiency. Steps that one or more railroads have taken include re-routing traffic from the busiest terminals to other, less crowded facilities; re-opening shuttered terminals to create additional storage capacity; offering financial incentives for increasing “out-gating”; working with other railroads to alleviate pressure on the truck drayage community by creating additional railroad-to-railroad interchanges; returning locomotives to active fleets to address network imbalances; increase their own pools of containers and chassis; and hiring new employees where needed. Railroads also provide network and facility updates, service advisories, and maintenance overviews to customers.

Returning fluidity to rail networks will take time and will require the cooperation of all stakeholders in the supply chain. No individual entity cannot restore fluidity on its own, but working together they are far more likely to determine what is needed to improve supply chain performance. This is not a new way of doing things for railroads: they work closely with their customers, their transportation partners, and others on an ongoing basis to understand and meet expected service needs. Railroads will continue to do this.

U.S. rail volumes are being impacted by the supply chain issues discussed above, as well as by continued direct or indirect impacts on the broader economy related to Covid-19.

The Bureau of Economic Analysis reported in late October that U.S. GDP rose an annualized 2.0% in Q3 2021, down from 6.3% in Q1 2021 and 6.7% in Q2 2021. It’s clear the Delta variant and supply chain issues combined to slow the economy in the third quarter. Most economists predict faster GDP growth in the fourth quarter.

According to data from the AAR, in the first ten months of 2021, total U.S. rail carloads were up 7.5% over the same period in 2020 but down 8.4% from the same period in 2019. Fifteen of the 20 carload categories the AAR tracks had year-to-date gains through October, led by coal, metallic ores, chemicals, primary metal products, and grain.

For 2021 through October, U.S. coal carloads were 2.75 million. That’s up 11.6% over the same period in 2020, but otherwise is lower than any comparable period in AAR records that go back to 1988. Well over 90% of U.S. coal consumption is for electricity generation. According to the Energy Information

Administration, in 2021 through August, U.S. electricity generation from coal was 27% higher than in the same period in 2020, largely because natural gas prices so far this year are close to double last year.

According to EIA, coal accounted for 23% of U.S. electricity generation in 2021 through August, compared to 19% for the same period last year. Coal consumption for electricity generation in 2021 through August was 354.0 million tons. That's up 24% from the same period in 2020, but 2020 and 2021 are the lowest-volume years for coal consumption since the mid-1960s. The EIA also reported that U.S. coal exports in 2021 through August were 57.0 million tons, up 28% over last year at the same time.

Coal remains the single highest volume carload commodity carried by railroads, but coal is expected to continue to face severe market challenges going forward. Railroads will face these challenges head on and will continue to work hard to serve their coal customers as safely and reliably as possible.

Year-to-date U.S. chemical volume in 2021 through October of 1.39 million carloads was up 5.7% over 2020 and was the most ever for the first 10 months of the year (fractionally higher than 2018 and 2019). Overall rail grain volumes have fluctuated over the course of the year as grain exports have fluctuated. Grain exports were exceptionally high in the first five months of this year, then fell sharply for several months, and then were exceptionally high again in October.

Carloads of petroleum and petroleum products on U.S. railroads were down 3.8% in the first ten months of 2021 compared to the first ten months of 2020. Crude oil is a large component of this category. In the first half of 2021 (the most recent period for which data are available), originated carloads of crude oil on Class I railroads totaled 51,500, down 37% over last year. Terminated carloads, which include substantial amounts originated in Canada, were 102,000 in the first half of this year, down 34% from last year. The price of crude oil has been steadily rising throughout this year and as of the end of October was the highest since fall 2014. It remains to be seen to what extent higher prices spur additional production and the impact that will have on rail volumes.

When the pandemic first hit hard in spring 2020, U.S. consumer spending plummeted. Soon, though, the economy recovered much of what it lost. Consumers increasingly chose to spend money on goods they otherwise would have spent on services.

In fact, by June 2020, consumer spending on goods was higher than it was in January 2020 and it kept trending higher from there. Meanwhile, consumer spending on services lagged: not until June 2021 did it recover to where it was in January 2020.

Few firms saw these spending patterns coming; even fewer were prepared for them. Retailers and manufacturers tried, but were often unable, to keep pace with demand. By spring 2021, retail inventories had fallen to record lows, and they remain close to record lows today.

Like consumer spending, rail intermodal volumes fell sharply when the pandemic began and it was widely expected they would stay weak for months to come. Instead, intermodal volumes quickly rose sharply. November 2020 broke the all-time monthly record for intermodal. That record was subsequently broken in January 2021 and again in April 2021. In many weeks in late 2020 and the first half of 2021, U.S. railroads were safely and efficiently handling close to 300,000 containers and trailers, levels no one expected when the pandemic began. Intermodal volume in 2021 through June was far higher than ever before for the same period.

Roughly half of U.S. rail intermodal volume consists of imports and exports, and there is a very close correlation between port volumes and U.S. intermodal volumes. The significant gains in rail intermodal volumes parallel gains in activity at our nation's ports.

In recent months, U.S. rail intermodal volumes have fallen somewhat as rail customers and other supply chain participants have become bogged down amid continuing challenges as noted above. However, railroads are continuing to work closely with their supply chain partners to address the challenges, maintain network fluidity, and deliver freight safely and efficiently.

In 2021 through October, U.S. intermodal volume was 11.89 million units, up 8.0% over last year; up 3.3% over 2019; and the second-best January-October total in history (behind 2018).

Railroads commend Congress for recently passing the Infrastructure Investment and Jobs Act. The legislation will make significant, long-overdue investments to modernize public infrastructure, enhance safety, and support future economic growth. Among other things, the legislation includes nearly \$845 million per year for highway-rail grade crossing safety and elimination projects and an average of \$5.55 billion per year for discretionary infrastructure grant programs, including \$1 billion per year for the Consolidated Rail Infrastructure and Safety Improvement grant program, which provides essential support to short line and passenger railroads as well as state departments of transportation.

The railroads and their employees initiated a new round of national collective bargaining under the Railway Labor Act by exchanging Section 6 notices in November 2019. This triggers a lengthy process that may include direct negotiations, mediation, arbitration, several cooling off periods, and in some cases, presidential appointment of an emergency board to recommend settlement terms. This process works: there have been no service disruptions arising from rail bargaining since 1992.

National negotiations pursuant to the Section 6 notices formally began in early 2020. After a brief pandemic-related interruption, the carriers and unions involved in the national negotiations have resumed a regular meeting schedule. The carriers remain in direct negotiations with the Coordinated Bargaining Coalition, which represents approximately 80% of the employees engaged in national handling. The carriers are in mediation with the BMWED and SMART-MD coalition, which represents the remaining 20% of the employees engaged in national handling.

As the national bargaining round was getting underway, several carriers served local Section 6 notices on SMART-TD seeking the right to redeploy conductors from the cab of the locomotive to ground-based positions in PTC territory. Following a lengthy period of litigation and arbitration that upheld the validity of most of these notices, a number of carriers are now engaged in direct negotiations with SMART-TD over the redeployment proposal advanced therein.

This concludes my introductory remarks. I now turn the floor over to any of my railroad colleagues for any comments.

Vice Chair Primus asked the Railroads to address the issues:

- Parking Trains
- Doubling Trains
- Manifest Trip Compliance
- Track Embargoes
- Where are we going into the Winter?

Co-Chair Dan McLaughlin from UP responded that the difficulty has laid in the anticipation vs. actual volumes over the past two years.

No one could have predicted the upswing in coal demand from higher natural gas prices. Power has been brought back online.

Prior to Covid we had many employees on furlough.

Parked trains-Day-to-day communication with utilities, based on utility forecasts.

Doubling trains when crew availability is low actually helps.

Steve Ewers from NS acknowledged the situation is not where it should be.

High attrition rates-shortage of crews.

Going toward Retention bonuses

Referral bonuses

Training changes

Temporary transfers

Timeline is early 2022 to get back to expectations

Adam Longson from CSX:

Managing bottlenecks.

Unpredictable issues and electric power needs.

Rash of coal mine issues. Coal production is down, and demand is up.

Mines are doing better but slow to cover demand.

Railroads are hiring substantially. Training is getting done. Attrition is higher.

Labor Agreements can restrict relocating employees.

Unexpected coal demand. Gas prices are up, coal needs are greater.

Lack of foresight from all directions.

“All hands-on deck approach”.

Co-Chair Brian Fuller asked for any other comments or questions:

Chairman Oberman said “What we heard ought to be a lesson regarding cutting resources. Railroads over-cut in the past six years.”

Summary of Written Public Comments.

No written comments received

Roundtable Discussion

Chairman Oberman discussed the RETAC Charter:

The Chairman intends to amend the membership section of the Charter to:

Add a designated seat from labor

Add two members from Renewable Energy Sectors.

Add new rules for continued service. Members would be allowed to serve two consecutive three-year terms. At the end of the second term, the position would become vacant and be posted to the Federal Register for candidates to apply. This would allow for possible new representation to be included in the membership, for example, CN and CP could have representation on the RETAC Committee once one of the long-held Class I seats becomes vacant. Former members are encouraged to re-apply and potentially continue their service.

The spring meeting date will be determined, and the meeting will hopefully be held in person in Washington.

The meeting concluded at 4:12 PM.

Draft respectfully submitted,

Daniel R. Sabin (IANR), Secretary and Treasurer for RETAC