

Transportation I
PNWER Annual Summit – Whistler, British Columbia

July 22, 2014

Co-Chairs Bruce Agnew, Cascadia
Co-Chair Senator Curt McKenzie, Idaho

Speakers:

Dan Rice, *Transystems LLC, Montana*

Jerry Whitehead, *Chair, Idaho Transportation Board*

Bob Steele, *New West Partnership*

Steve Marshall, *Fellow, Cascadia Center for Regional Development*

Mark Hemphill, *Vice President, HDR Engineering INC*

Benjamin Teitelbaum, *NAFTA Commission, Montreal*

Bruce begins the event by re-stating the purpose of the meet which is to address the specific railway and road issues that occur in the North West region regarding Harmonization.

Truck Size and Concerns:

Dan Rice begins the conversation on the issue of harmonizing all high productivity vehicles. After provided illustrations of the typical truck configurations that are seen crossing the border it is made evident that there is a correlation between productivity and a trucks length/number of axles. When measuring a truck precisely, Dan states the way to do so is by measuring the cargo area in addition to the trucks length as it helps measure the load distribution. Among other things that trucks should be measured in include:

- i) Safety
- ii) Infrastructure
- iii) Air Pollution
- iv) Congestion
- v) Economic Value

Being that accident frequency is a function of exposure, according to Dan; safety can be accounted for by reducing the amount of time spent on the road. The reference is made to Alberta being the ideal region for an efficient trucking system and that it should be learnt for its importance in high driving qualifications, and its versatility in truck configurations that accommodate for route and weather restrictions. Pavement and bridges taking the biggest toll from trucks in the infrastructure section, Dan argues that pavement life can be extended by organizing more high efficiency trucks. Heavier trucks are more than ideal when they are constructed with sufficient axles for load distribution, even being a better option when compared to lighter trucks with fewer axles. Using the concern for reducing

emissions as a platform, the value of using the right truck with the appropriate fuel consumption can reduce emissions as well as congestion and travel delays. Through analysis of procedure, heaviest trucks with several axles show to have the least freight costs when evaluating from test consisting of 5 theoretical producers.

Rail Transportation in the Northwest Economic Region:

Jerry Whitehead is the first to talk in regards to the transportation challenges; one of his issues comes from the fact that while some states and provinces moderate the maximum weight permitted for trucks some regions upper bound is too high with Montana and Wyoming being uncapped altogether. The conversation is transitioned into the difficulties around the transportation in Idaho. Being in the center of the regions covered by PNWER, there are currently no direct route services in Idaho and no direct lines connecting North and South Idaho making commuters depend on an unorthodox off-tracking system.

After further description on train and truck equivalences and indifferences, Bob Steele is introduced to address the Inter-Jurisdictional Programs currently in effect. His belief is that in having partnerships between regions it can become Canada's largest inter-provincial market allowing for the removal of barriers to free movement of goods. Additional benefits would include:

- i) Streamlining regulations and policies
- ii) Enhance competition
- iii) Create business registration
- iv) Best value for tax dollars

NWFTA requires the government and public entity to remove impediment costs for there to be functionality. It is further explained that internal operating and permitting policies through reconciled operating restrictions streamline oversize load permits which are susceptible to be broken down. In specific reference to harmonization, Bob provokes the possible attempt of a joint website for commercial carriers.

A Spur from Technology:

Steve Marshall reflects on the impact that technology such as iPhones and app programs have and their ability to develop a diverse utility in virtually all fields of operation. With increasing use of transportation energy however, the world still heavily relies on oil which stands as the fuel for 97 percent of all transportation harming national security, the economy, and environment. In addition, the other current problems he addresses include;

- 1) Collisions, deaths, injuries
- 2) Congestion (100 Billion/year in costs)
- 3) Little support from public transit

All of which he feels can be addressed through the assistance of current technology. In his process to make this a reality his first step is to focus on smart, connected ideas for alternative fuel vehicles as personal mobility will be fundamentally different in accordance to the acknowledgment of the Pacific Coast Collaborative Green Highway Action Plan. Part two aims at connecting personal vehicles to public transit, mass marketing concepts similar to car2go, Uber, and other energy efficient services. These services could improve public transit as well as reduce emission.

Mark Hemphill adds on to the discussion by introducing LNG services for railroads as a way to improve the use of fuel energy for transportation. After presenting the projected price spread of LNG and Diesel fuel he addresses that diesel fuel is just as beneficial sometimes for trains as it is non-perishable, widely available, highly reliable, and has an overall broad demand base which allows for spreading costs for infrastructure. On the other hand though, it is demonstrated that trucks using LNG require extensive utilities to facilitate the fuel; one factor among the several others that raise concern to safety and functionality. Mark raises the idea that the future of a more efficient engine would require a dual fuel system from both of the energy alternatives. In regards to Locomotive and Tender fleet, the cost and scale to convert is stated to be 20 billion as opposed to the 25+ billion required for liquefaction. His attempt at drawing up a solution for the use of LNG is to create a highly centralized fueling system with a fixed business plan so that transportation and mobility costs are greatly reduced. This type of business plan however limits growth while being costly in flexibility despite its promise of being a network operation. While there is little moving space for improving their markets, the liabilities and caps expected to be placed will allow for more analysis of these fuels, both which Mark feels are worth studying into. A question is directed to Mark regarding moving fuel around as an alternate technique but Mark explains that six trucks of fuel are required to fuel a train with LNG but regardless it is an option that they are also considering.

Benjamin Teitelbaum was next, speaking on the matters of border gateways and lowering the level of greenhouse gases. Being part of the NAFTA Commission, his goal is to assure that the three countries (Canada, US, Mexico) in NAFTA are obliging to the same rules and all playing on an even field. After being part of several projects aiming at reducing congestions at North American Land Ports (PoE's) he concludes with slight humour that the borders should be removed all together to bring ease. This is said as initiative to find a solution for all the congestion at borders. Air quality studies are being conducted at the port of the Blaine/Surrey Highway and the port of San Ysidro/Puerta Mexico to further analyse the predicaments of border congestion. The current reports he is able to declare however, are the indifference of traffic in the Canadian and Mexican border; the latter being much more intense and less diversified. In order to facilitate such fuel and vehicle technologies mentioned earlier, the best POE practices are needed, ranging from Vehicle Retrofit to enabling port anti-idling programs. Ideally though, the successes and fails from the border-less nations of Europe should be studied well in order to oblige with altered techniques that have proven success overseas. The idea of integrating a barcode system into borders is brought up. The great benefits for barcoding is extreme identification for each product or commuter as it is more accurate, would provide quicker screening and clearing process, and minimize all possibility of inaccuracy of product as each barcode is unique.

The conversation is then reverted back to Senator Curt to conclude the presentation and allow for further questions:

Q/A:

Q: Aren't longer vehicles with heavy tonnes more dangerous due to their whipping and momentum generated?

A: (Bob Steele) The Alberta study looked at several configurations and it wasn't that the several tonnes difference provides stability but that it was one less connection which contributed to stability. Length does not affect the stability as opposed to the number of connections it has.

Q: Are small medium size lines such as the Tacoma trail able to economically switch LNG if not what are the costs prohibited from doing so?

A: Switching to LNG for rail roads is a really good idea, it is seen working in Los Angeles and more terminal lines have gone for diesel engines which work well with LNG

Q: Being the concern of making our carbon footprint any bigger, has anyone done a study to see if removing the border altogether would in fact reduce emissions and congestion?

A: There is no thought for removing the Mexican border but there has been discussion for the Canadian border on the table in the past but was pulled away after concerns revolving around 9/11 have prevented from going forward with the idea. The trusted travelers program could potentially help the situation as well as the concept of removing borders and using those funds to invest in security.