Glossary of Railroad Terms

**Railroad Classifications:** Any freight railroad company in the United States, Mexico, or Canada is classified based on operating revenue. Railroads are classified as Class I, Class II, or Class III. The exact revenues required to be in each class have varied over time, and they are now continuously adjusted for inflation.

- **Class I Railroad:** The Class I railroads are large railroads that cover a significant area such as the eastern United States. There are seven Class I Railroads serving the United States; CSX Transportation (CSXT), Norfolk Southern (NS), Union Pacific (UP), Burlington Northern Santa Fe (BNSF), Kansas City Southern (KCS), Canadian National (CN), and Canadian Pacific (CP). The Surface Transportation Board (STB) long ago defined a Class I railroad in the United States as “having annual carrier operating revenues of $250 million or more” after adjusting for inflation using a Railroad Freight Price Index developed by the Bureau of Labor Statistics (BLS). Currently, that adjusted income level is $433.2 million (USD).

- **Class II Railroad/Regional Railroad:** Generally, a single railroad with over 350 miles of operations and with a Class II designation is called a “Regional Railroad”. The STB determines the threshold levels for Class II railroad operations in the same way it does for Class I railroads. Currently, a railroad with revenues greater than $34.7 million but less than $433.2 million for at least three consecutive years is considered a Class II railroad. Switching and terminal railroads are excluded from Class II status.

- **Class III Railroad/Short Line** A Class III railroad is generally referred to as a “Short Line Railroad”. A Class III railroad is a rail company with annual operating revenue of less than $34.7 million. The STB also determines the threshold levels for Class III railroad operations in the same way it does for Class I and II railroads. Class III, short line railroads generally serve a small number of towns and industries or haul cars for a larger railroad(s). Many Class II and Class III railroads were once branch lines of larger railroads that were spun off, or portions of lines that had been abandoned.

**Railroad Track Types:**

- **Mainline:** Track that is used for through trains or is the principal artery of the system from which branch lines, yards, sidings and spurs are connected. “Mainline” is often used as a generic term. Sometimes small, light density lines are referred to as the “mainline” as a way of differentiating them from spur tracks.

- **Branchline:** A branchline is a secondary railway line which branches off a more important through route.

- **Passing Siding:** A section of track parallel to a through line and connected to it at both ends by switches or “turnouts”. Passing sidings allow trains to pass one another. They are important for efficiency on single track lines, and add to the capacity of other lines.
- **Turnout**: A switch necessary to allow a vehicle to move from one track to another.

- **Lead Track/Industrial Lead**: A non-main track from which several others branch off within a short distance, such as within a rail yard or engine terminal.
- **Spur Track**: A length of track for industrial, storage or sorting. It may have access from one [stub] or both [double ended spur] ends. Stubs can be either a facing or trailing spur depending on the direction of the train.

- **Railroad Yard**: Any grouping of connected tracks used for operational purposes by a railroad.

- **Distribution Yard**: A type of railroad yard primarily used to serve as a crewing point and local yard for large businesses such as steel or auto plants or several businesses located in proximity.

- **Service Yard**: A railroad yard whose main function is to service engines, repair cars and provide heavy maintenance and rebuild functions. Normally located at division points or central point of smaller railway.

- **Classification Yard**: Generally the largest of railroad yards, classification yards are used to separate railroad cars to one of several tracks. First the cars are taken to a track, sometimes called a lead or a drill. From there the cars are sent through a series of switches called a ladder onto the classification tracks. Larger yards tend to put the lead on an artificially built hill called a hump to use the force of gravity to propel the cars through the ladder.
- **FRA Classes of Track:** The Federal Railroad Administration (FRA) is the regulatory agency that oversees track standards since the passage of the Railroad Safety Act of 1970. Track inspection is performed by the FRA as well as the railroads themselves.

  - **Excepted Track:** 10 mph speed limit for freight, but cannot be used by revenue passenger trains. FRA permits excepted track under specifically defined conditions.

  - **Class 1:** 10 mph for freight, 15 mph for passenger. Yard, branch line, short line, and industrial spur trackage often falls into category.

  - **Class 2:** 25 mph for freight, 30 mph for passenger. Branch lines, secondary main lines, many regional railroads, and some tourist operations frequently fall into this class.

  - **Class 3:** 40 mph for freight, 60 mph for passenger. This commonly includes regional railroads and Class 1 secondary main lines.

  - **Class 4:** 60 mph for freight, 80 mph for passenger. This is the dominant class for main-line track used in passenger and long-haul freight service.

  - **Class 5:** 80 mph for freight, 90 mph for passenger. This is the standard for most high-speed track in the U.S.

  - **Class 6:** 110 mph for freight, 110 mph for passenger. This is found in the U.S. exclusively on Amtrak's Northeast Corridor between New York and Washington, D.C. Amtrak has also received special "Class 7" status for 125 mph operation and (with the launch of high-speed Acela Express trains) "Class 8" status for 150 mph on specific segments of the corridor.

- **Rail Weight:** Rail is rated based on the weight of a 3 foot length of track. Track that weighs less than 100 pounds per 3 foot section is typically considered to be “light”.
- **Bulk Transload**: Transloading of dry or liquid bulk materials (plastic pellets/resins, coal, aggregates, sand, iron ore, petroleum products, etc.) using truck as the short haul and rail as the long haul when direct rail service is not available for the entire trip. Can also apply to rail to barge or ship and vice-versa.

- **Container or Intermodal**: Special service utilizing shipping containers that are trucked to/from customers to/from specialized railroad yards for loading and unloading onto rail cars. Railroads generally only provide intermodal services at established intermodal terminals. There are 11 intermodal terminals in Ohio: North Baltimore, Cleveland (2), Columbus (2), Cincinnati (2), Toledo, Sharonville, Marion, and Marysville. Additionally there is one exclusive Triple Crown trailer facility (53’ truck trailers mounted directly onto railroad bogey/wheels without rail car) in Sandusky.

- **Car Hire**: Car Hire is the fee railroads charge each other based on the time that car is on the non-owners line. The amount of car hire is determined by the type of rail car involved. Car Hire charges absorbed by a railroad can cause it to charge its shippers demurrage.

- **Demurrage**: Demurrage is a fee charged for the extended use of railroad-owned railcars. These fees are intended to ensure that cars are loaded, unloaded, and released quickly so that they can be made available for the next shipment and track can remain fluid to handle traffic. Demurrage may also be assessed on shipper-owned or leased cars when a customer’s spur is filled, necessitating temporary storage on railroad owned track.

- **Derailer**: A removable device fixed to a rail that will cause the wheel of a rail car to leave the track, thereby derailing that car. Often required by a railroad for rail users who own spurs and side tracks, derailers prevent rail cars from rolling onto a mainline track where they could be struck.
- **“Friendly” Connection:** A friendly connection is any railroad connecting with another railroad with which it is not competing for traffic for a particular rail move between two points.

- **Fouling the Main:** When any object, ranging from a stalled train to a fallen tree, blocks the movement of trains on the track.

- **Interlocking:** An arrangement of interconnected signals and signal appliances at a point where two or more routes cross. The interlocking controls the movement of trains through the crossing.

- **Origin/Destination or “O/D” Pairs:** The origin of inbound traffic to a site and the destination of outbound traffic from a site makes up OD Pairs for the traffic involved.

- **Paper Barriers:** Voluntary agreements that give pricing preferences to specific railroads. These agreements are usually entered into by small railroads in exchange for the right to operate a rail line or otherwise access rail traffic they cannot currently serve. Paper barriers can make the cost of doing business with another connecting railroad higher under certain circumstances.

- **Railroad Interchange:** Track or yard where rail cars are transferred from one carrier to another.
- **Service, Local:** Local Service is the service of a designated train that stops to pick up and set out cars at points along its route such as industrial parks. Service by the crew on the “local” train provide switching services and spot cars for customers.

- **Service, Through:** Through Service involves trains that go from point “A” to point “B” without stopping to serve local customers located along the way. Mainlines sometimes have extensive through trains, and sometimes so many that local service may be an operational problem.

- **Single Line Haul:** Freight moved entirely on a single railroad’s line. The advantages of the single line haul are economical (only one railroad needs to profit from the move) and logistical (shippers avoid the need to interchange between two railroads, often making for fewer instances wherein the traffic in question is handled in a yard.

- **Spotting Cars:** Railroad crews will place cars on the “spot” where the customer can unload them.

- **Switching a Customer:** Railroad crews spotting cars for customers are said to be “switching” that customer. Local crews generally leave full cars and pick up empties or vice-versa.

- **Switch Charges/Reciprocal Switching:** Switch Charges are the charges for cars that are switched by one railroad to or from the siding of another railroad. Reciprocal Switching is the industry term for switching cars between a local facility and the nearest interchange with a connecting railway, where the railway performing the reciprocal switch does not participate in the line haul of a railcar. Customers may be "open" to reciprocal switching, meaning other railways can ship to or from the facility using the prices in the rate. As its name implies, reciprocal switching generally involves two railroads trading rights to access one of its rail users for the right to access a rail user on the other carrier’s track.

- **Turn-Around Time:** The time required to complete the cycle of loading, delivery, unloading, and spotting for reloading of a freight car.

- **Wayside Signals:** Wayside signals are the red and green lights along the tracks that control train movements.