

Contents

Chapter 1

History of express, merchandise, and mail service . . . 4

Chapter 2

Railroad LCL traffic 11

Chapter 3

Railway Express Agency 19

Chapter 4

Head-end cars and merchandise equipment 37

Chapter 5

Depots, freight houses, and transfer terminals 53

Chapter 6

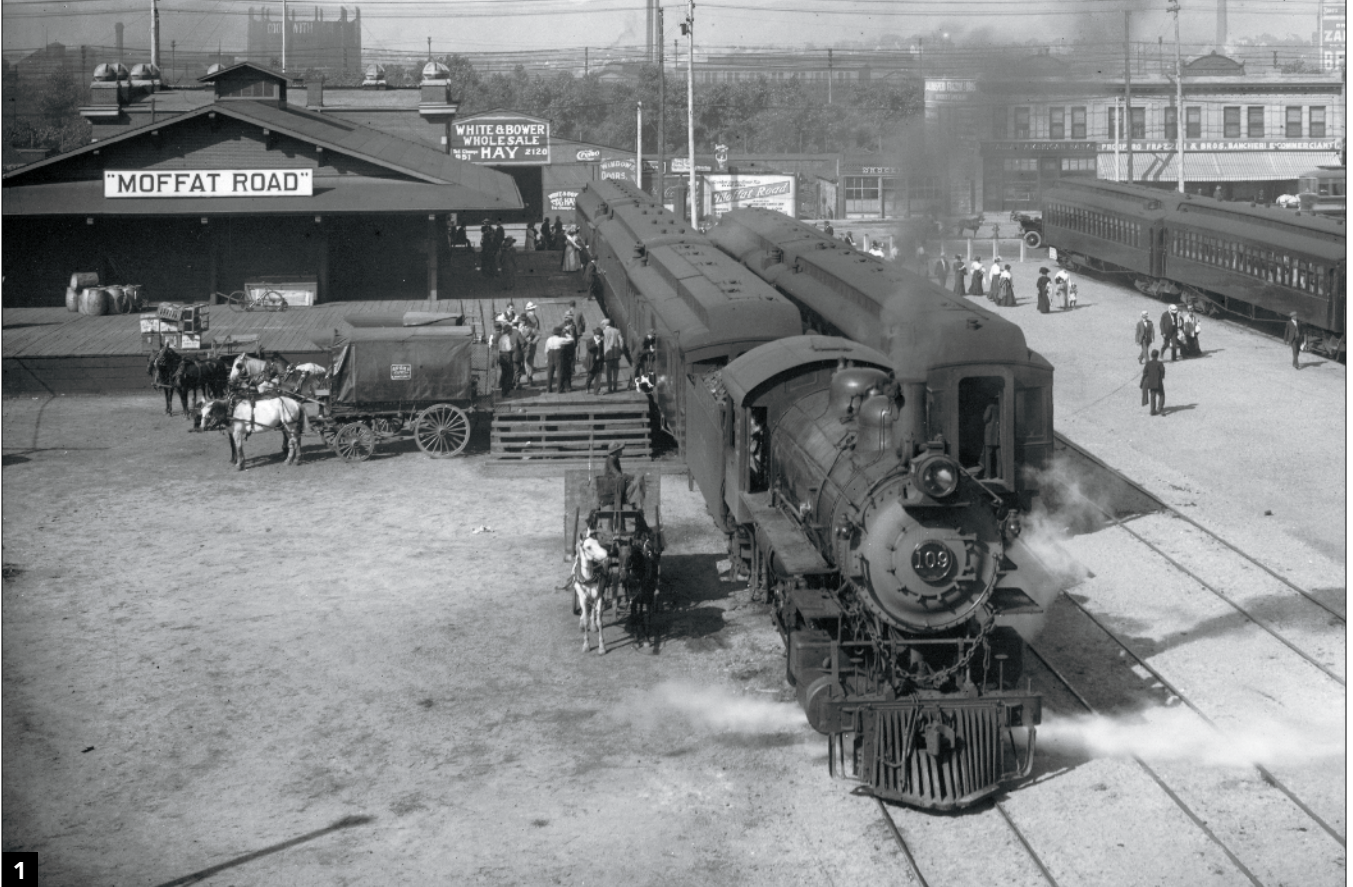
Train and car operations 70

Chapter 7

Moving mail by rail 82

Bibliography 94

Thanks and acknowledgments 95



1

CHAPTER ONE

History of merchandise, express, and mail service

An Adams Express Co. horse-drawn wagon is backed up to the Denver & Salt Lake (Moffat Road) depot in Denver around 1900. Several crates and barrels of LCL and express can be seen on the platform. *Trains magazine collection*

Today, the local railroad station is just a memory, and it's the step vans of UPS and FedEx that roll up to your house or storefront business to deliver packages and express parcels. If you have a business that needs to ship a pallet or two of goods, you'll call the freight divisions of those companies or a trucking line such as Con-Way, Old Dominion, Estes, or R+L Carriers, all of which provide what's known as LTL (less-than-load or less-than-truckload) service. Retail stores now receive their wares by those services, by the truckload from wholesalers and distributors, or directly from manufacturers.



2 The Nashville, Chattanooga & St. Louis freight station in Chattanooga was one of hundreds of terminals around the country where LCL freight was transferred and reloaded among boxcars. *NC&StL*

Mail now travels by truck or plane, and although some does indeed still travel by rail, it's in sealed trailers and containers that ride atop railcars, and clerks no longer sort mail inside specialized cars as trains roll along.

From the horse-and-wagon days of the mid-1800s into the 1950s, railroads were the main provider of all these services, **1**. Railroads gave the best rates to companies that could fill an entire car with a load, while charging a higher rate for smaller items and shipments. Railroads then packed these smaller shipments into cars, consolidating them for movement to common destinations. The result was that the overall tonnage was comparatively low, but the potential profit margin for less-than-carload (LCL) traffic was high because of the multiple shipments traveling at higher rates.

Each railroad operated its own LCL service, which was tied to other railroads by an extensive network of

freight houses and transfer stations, along with tens of thousands of local railroad depots across the country, **2**. Thousands of boxcars operated in LCL service, all following strict schedules and routing. They operated in freight trains but—although at slower speeds—with coordination matching passenger trains. Tens of thousands of workers were needed to keep this traffic flowing smoothly.

For expedited service, individuals and businesses alike would call for a pickup from Railway Express Agency (REA), which had a monopoly on the country's express service. One of the company's ubiquitous green trucks would arrive shortly to get the shipment on its way, **3**. The service garnered a premium rate (often double) compared to common LCL service, but it was faster, traveling via baggage cars on passenger trains of any of the country's railroads. From the 1920s onward, air express was also available through REA.

So whether it was a Christmas present from Aunt Edna in Sacramento to her nephew in Atlanta, a toaster from Sears in Chicago to a family in Pocatello, Idaho, or a replacement piston for a tractor engine traveling from the Case Co. in Racine, Wis., to an implement dealer in Kearney, Neb., railroads were more than likely involved in the shipment.

Knowing what types of items were shipped; how parcels, express items, and mail were handled; what kinds of cars and equipment were used; and how railroads routed cars and scheduled their trains help modelers better duplicate these operations in miniature. Let's start with a brief look at the history of railroad express, LCL, and mail services.

Beginnings

The U.S. Post Office was well established by the time railroads began expanding throughout the country in



6 An REA step van delivers air express packages directly on the tarmac to a waiting American Airlines 707 in the early 1960s. *Railway Express Agency*



7 Cases of strawberries are transferred from pickup trucks to a National Refrigerator Car express reefer at Hammond, La., in 1939. REA handled LCL and carload lots of refrigerated express in its own cars as well as railroad-owned cars. *Russell Lee, Library of Congress*



8 Fish and seafood often traveled by express. Here, fresh shrimp in insulated, foamed-lined cases is loaded aboard a standard baggage express car at Biloxi, Miss. *Goodyear*

Valuables, including jewelry, precious metals, negotiated checks, bonds, and cash, were frequently shipped via REA. The U.S. government was a major customer for this, as Federal Reserve Banks used REA to send cash among branches, and the government sent cash to military bases for payroll. A safe in the REA messenger's baggage car served as the repository. REA agencies in depots had safes to store valuables, 3, while large terminals had a "value room" for cash and valuables, with armed guards on duty. Larger shipments of gold, silver, and ore would have multiple armed guards and messengers.

Baggage was also common, but not the checked baggage of train passengers. This could include trunks and suitcases forwarded to colleges ahead of students as the school year started; belongings to and from military bases as soldiers were transferred, inducted, or discharged; families forwarding trunks to resorts or vacation destinations; or cases and household goods for a family that was moving.

Live animals were accepted for express shipments, especially high-value breeding stock. Racehorses are an example of a high-value animal often shipped, and REA handled almost all traffic among racetracks, especially in the Northeast and Midwest, 4. They would be carried in a horse car (usually rented from a railroad) or a baggage car equipped with portable stalls and having special attendants.

Pets, such as dogs and cats, and other small animals could be caged and crated and shipped in standard baggage cars. Such shipments required that food and water be supplied, and would include special handling instructions for the messengers and agents, such as feeding and walking.

Baby chicks were sent by the millions via REA from hatcheries to farmers in rural areas, as they could survive for three days in their boxes without additional food or water, 5. In 1940, a single hatchery in Indiana sent more than a million chicks via express. Turkeys and other birds were other common shipments.

Zoo animals and other exotic animals would also be handled, often in special shipments. REA was not shy about publicizing any of these shipments via ads, news releases, and photos, and its own employee magazine (*The Express Messenger*) often had stories and details of exotic shipments.

In areas that didn't warrant full milk car or milk train service, REA handled milk and cream cans among stations. These were carried in standard baggage (messenger) cars, and depending upon the weather, might require the messenger to keep ice atop the cans to keep the contents from spoiling.

The military provided shipments—including many top-secret moves, such as equipment and atomic “fissionable materials” traveling in customized lead-lined cars via REA (more on these cars in chapter 4).

Other shipments included furniture, appliances, various food products, almost any type of consumer goods, fresh eggs, clothing, human remains in caskets, and high-priority paperwork (financial forms, contracts, deeds, stocks and bonds).

Air express warranted a premium price, but enabled same-day or overnight delivery in many cases—a radical development for the 1930s and '40s, 6. Items traveling by air included newsreels, news photos, and other film; recordings for radio; machinery and parts; financial documents and canceled checks; flowers (especially at Easter and Christmas); and human blood. About the only things not accepted for air shipment were livestock, explosives, or “iced goods” (those that required re-icing in transit).

Refrigerated express

REA also handled items that required refrigeration. REA and various railroads had fleets of ice-bunker express refrigerator cars equipped to travel in passenger trains (see chapter 4 for details).

Shippers were willing to pay express rates for items that were very perishable. Most berries, for example, had short shelf lives, and were almost always shipped by express, 7. Express



Church containers were wheeled, insulated chests that could carry a small refrigerated load and either water or dry ice. They were easily loaded on trucks or railcars. *Railway Express Agency*



REA started REA Leasing Corp. (Realco) in the early 1960s, selling the division at a profit in 1969. This cryogenic trailer was new in 1961. *Railway Express Agency*

rates were also paid for high-demand products, such as the first fruits produced in a given growing season or region, or those products known for being the best of their type. Other perishables requiring refrigeration that traveled in express reefers included cut flowers; many types of plants, including strawberry and tomato; prepacked gift baskets and packages of fruit, meat, and cheese; and fresh fish and seafood.

Dressed game animals (or the meat from them) were often sent home from hunting trips via REA.

Many refrigerated items traveled in standard cars as well. Shippers could pack products such as fresh fish or seafood in sealed containers with insulation and dry ice, 8. Another option, developed in the mid-1930s, was placing small lots of perishables in REA-supplied insulated rolling chests called *Church containers*, 9.

Church containers (named for their inventor, Major Elihu Church) look like large chests or trunks with rolling casters, making them reasonably easy to move. They have a galvanized steel



28

New York Central's *Pacemaker* cars were among the best-known merchandise cars. Note the limited data markings and how the vermilion has weathered on the car at right. *J. David Ingles collection*



29

Southern Pacific's distinctive B-50-15 cars were rebuilt for *Overnight* service from older wood-sheathed cars with new steel sheathing. Note the ladder and stirrup at the door. *Mainline Photos*

Merchandise cars

From the late 1930s into the 1950s, a few railroads began operating merchandise and LCL traffic in dedicated trains, many with specially equipped cars. Although slower than passenger trains, these LCL trains

moved at speeds faster than standard freight trains and rated special attention.

Railroads took differing approaches to the cars used for merchandise traffic. Most simply used standard boxcars, but many equipped, painted, and

lettered fleets of cars to handle the traffic, supplanting the special cars with general-service cars as needed. In some cases, these were older cars that were rebuilt, while others used new cars.

Among the most famous were the New York Central's distinctive vermilion and gray cars used for *Pacemaker* service, which was inaugurated in 1946, 28. The railroad eventually assigned 1,000 cars to the service. The bodies were contemporary AAR 40-foot cars, but with a 10'-0" inside height, 6" shorter than standard. Cars had both Youngstown and Superior doors.

The cars initially rode on Barber high-speed trucks, with spring packages that allowed only a 25-ton load (Note the LOAD LIMIT: 50000 stenciling), compared to 50 tons for a common boxcar. This allowed a better ride, and the weight limit generally wasn't a problem for LCL cars. Cars were also equipped with cushioned draft gear and high-speed (AB-1-B) brakes.



30

New steel cars for *Overnight* service arrived in 1946 from Mount Vernon. Note the simplified scheme without a spelled-out road name. *Ted Culotta collection*

Another 25 Pullman-Standard PS-1 cars arrived in 1954. These had cushion underframes and 8-foot door openings (earlier cars had 6-foot doors).

The initial paint scheme featured all-white lettering, with only the load limit and light weight positioned under the reporting marks. No capacity or dimensional data was included, as this was a requirement only for interchange service, and the cars were not intended to leave the NYC.

Paint scheme changes included a switch to black lettering on the gray areas around 1950 and a change to the heralds in 1955, giving them a black background. Dimensional data was eventually added to the cars.

By the late 1950s, LCL service was declining, and NYC was focusing on Flexi-Van service, so the *Pacemaker* cars returned to the general boxcar pool. The trucks were replaced, giving the cars a 50-ton capacity, and they were repainted in the NYC's standard Oxide Red paint scheme.



31

The silver *Overnight* scheme debuted in 1956. After *Overnight* service ended, cars tended to keep rolling in this scheme through the 1960s. *Ted Culotta collection*

Another distinctive scheme that has been captured by many model manufacturers is Southern Pacific's *Overnight* service cars. The SP began painting cars for this Los Angeles-San Francisco LCL service black, with an *Overnight* logo in red with a yellow arrow. The class B-50-15/16 cars,

originally single-sheathed wood cars, were rebuilt with steel sheathing, giving them a distinctive appearance, 29. A batch of new 450 B-50-24 boxcars arrived in 1946 for *Overnight* service. These were AAR 1944-design cars built by Mount Vernon but with a 10'-0" inside height, simplified lettering (the



CHAPTER SIX

Train and car operations

Milwaukee Road's westbound *Morning Hiawatha*, train 5, pauses at Portage, Wis., in October 1965. Tucked behind the E units are several head-end cars, including a Great Northern express boxcar, Milwaukee express boxcar, and GN baggage express car. *Tom Hoffman*

Merchandise, mail, and express cars traveled across the country in a well-choreographed operation. These cars didn't travel randomly: they were scheduled as tightly as passenger trains, with schedules published and distributed to shippers and customers.



2 Peddler cars (or waycars) carried LCL to multiple stations along a route. Some were specially equipped and manned by messengers, as is this car on the Wabash at Marshfield, Ind., in 1948. *Ralph E. Byers*



3 Some railroads used side-door cabooses to carry LCL on branch lines. Here, the St. Louis-San Francisco crew has just unloaded several empty milk cans at Steelville, Mo., in 1949. *Frank Barry*

Express shipments, along with mail (more on that in chapter 7) traveled via passenger trains, while cars of less-than-carload (LCL) traffic were carried in freight trains, **1**. Let's first take a brief look at LCL car and train operations.

Chapters 2 and 5 explained how basic merchandise operation works. At a local depot or freight house, this could start by accepting anything from a single parcel or piece of crated machinery to 15 cases of paint. It could also be a distributor in a large city filling a car with hundreds of boxes bound for individual customers. These items were all combined and loaded onto cars for their destinations.

Car movements

They might all look the same from the outside, but boxcars loaded with LCL merchandise served several purposes. Many terms were used to describe cars in various types of service. Not all railroads used the same terms, and there was some crossover and duplication of words, but here is a general summary of the most common types of LCL cars:

Package or merchandise car:

Can refer to any car carrying LCL shipments, but when these nonspecific terms are used, it usually refers to cars being handled on-line—among freight houses, transfer stations, or combination depots on the host railroad.

Ferry car: Ferry cars were loaded at a freight house or transfer station on one railroad and destined to carry, or *ferry*, parcels to a freight house on another railroad. Short-haul interline movements of ferry cars (such as between two freight houses in Chicago) were among the first LCL traffic that moved to trucks; longer ferry moves could be extensive—a thousand miles or more.

Overhead car (also called **through car**): This was a carload of LCL that a railroad picked up at an interchange, handled over a route, and turned over to another railroad at interchange, with no rehandling of the contents.

Peddler car (also called **waycar**): Peddler cars were used to distribute LCL to multiple stations along a route, **2**. They would be loaded at a larger freight house or transfer station. Peddler cars served stations too small to warrant receiving their own LCL cars.

At each station, parcels would be unloaded and loaded. Depending upon the railroad, a messenger may or may not ride in the car. Some railroads equipped cars especially for this purpose, usually with additional grab irons or ladders adjacent to the door. Other railroads used standard boxcars. Branches with light traffic might be served by a side-door caboose with a storage area, **3**. A local freight could carry more than one peddler car, depending upon traffic volume.

The local may simply pause at a station for the peddler car to be unloaded; if the train had other work to do in town, the local would set out the peddler car at the depot until it was ready to depart and then pick it up.

Peddler cars became less common after the 1930s, as many small depots were closed and railroad-owned trucks began serving many others.

Trap car: This was a car loaded with LCL items by a shipper on a rail siding at its own factory or warehouse. The shipper would load the entire car (or multiple cars), but the items were all individual shipments heading to multiple customers. The railroad would pick up this car and bring it to a nearby freight terminal, where it would be unloaded and the individual parcels sorted to their ultimate destinations.

Major users of trap cars included catalog companies, such as Sears and Montgomery Ward, that shipped out many cars of merchandise a day. Grocery and dry goods wholesalers and distributors also shipped products to their retailers this way.

Many short-haul (within-city) trap car movements gave way to railroad-owned (or contracted) trucks through the 1930s and 1940s, as they allowed faster service.

Line car: A variation of the trap car, the line car was similar, in as it was loaded by a single shipper with items for multiple customers.



Railway postal clerks were federal employees. Here, a clerk works on the last RPO in service, New York & Washington (on Amtrak), in October 1972. *Don L. Hofsommer*



Mail bags are transferred from a Milwaukee Road RPO on the eastbound *Midwest Hiawatha* at Davis Junction, Ill., in the early 1950s. *Trains magazine collection*

Service grew dramatically as railroads expanded routes throughout the country. In 1875, mail service covered 70,083 route-miles. By 1900, the service had more than doubled, to 179,982 miles, with 1,300 RPO routes serving the country.

Railroads provided service to virtually every town on their routes (and many that were off-line as well). Large cities generated multiple cars of mail. Smaller cities were served by passenger trains that paused to load and offload multiple bags of mail. Small towns were served by moving trains that picked up and dropped off individual mail pouches on the fly.

Brick-and-mortar post offices sorted mail and served as the base for mail carrier routes, but railroads were responsible for handling more than 90 percent of intercity mail for at least part of its journey well into the mid-1900s, 3.

By the mid-1920s, railroads hosted 1,500 RPO routes, with 10,000 trains carrying mail along more than 230,000 miles of railroad. As with express, LCL, and other rail traffic, the Depression

diminished the number of trains and routes, as well as the overall volume of mail, but that traffic picked up again during and immediately after World War II.

In 1944, railroads handled 22.2 billion pieces of mail, carrying 93 percent of mail for at least part of its journey. This was highly profitable for railroads, which that year received \$128.3 million in payments for handling mail. The top earners were the Pennsylvania at \$14.7 million and Santa Fe at \$10.2 million. By 1953, total payments would be \$310 million.

However, as earlier chapters discussed, after the war, Americans abandoned passenger trains in droves, moving to automobiles and improved highways as well as airlines. Since passenger trains and mail were dependent upon each other, it created a domino effect: If a passenger route was discontinued because it was losing money, that was one fewer route and connection for mail; if a mail contract was pulled, the passenger train handling it likely went away because

it could no longer be profitable. As more trains disappeared, so did their connections, which slowed and limited mail schedules.

The Post Office began routing more mail by airplanes and trucks in the 1950s. A lot of remaining mail started moving “closed pouch” only, moving from post office to post office without being sorted en route in an RPO car.

The Railway Mail Service officially became the Postal Transportation Service in 1949. Eliminating the word *Railway* in the title foretold the future, even though railroads still hauled a significant amount of mail in the 1950s. In 1956, railroads handled 56 billion pieces of mail—a record—and still served 39,000 locations, but a growing portion of it was storage mail, as RPO runs had dropped to around 600.

Mail contracts and routes continued dropping, from 262 RPO routes in 1961 to 190 by 1966. Along with diminishing passenger train routes, other factors included the emergence of large mechanical sorting and canceling machines in the 1950s, with the Post

Office decision to sort mail in large regional centers, followed by the move to ZIP codes in 1963.

The biggest downsizing came in 1967, when most rail mail contracts were canceled. When railroads turned over passenger operations to Amtrak in 1971, seven of the eight remaining RPO routes were canceled. The last RPOs, on New York City–Washington, D.C. trains 3 and 4, made their last runs in June 1977.

Basic mail handling

The country was divided into 15 divisions, with published Railway Post Office routes for each division, which covered almost all rail routes in the country that had passenger service. RPO routes were numbered, and were listed with their train numbers. RPO routes were known by the end points of their routes (the first city is the northern- or easternmost on the route), such as Chicago & Omaha or Duluth & St. Paul, and which appeared on their cancellation stamps.

First-class mail was sorted (“worked”) aboard the RPO cars, while lower-class mail was carried in mail storage cars but added to mail being delivered on a route. The mail was carried in several types of canvas bags. The term *bags* includes pouches, which were used for first-class mail, and sacks, for non-first-class mail. Pouches and sacks each came in three sizes.

The mail was handled by railway postal clerks, who were federal (not railroad) employees, 4. Clerks were initially hired after passing civil service tests, and had to pass regular, stringent examinations that demonstrated their ability to handle mail. Each clerk had to know every town in their three- to five-state division, along with the route each town was on and the order of the towns. Clerks also had to know how a letter would be routed for the next leg of its journey beyond his train, so they had to know all connecting RPO routes, along with those routes’ end points and connection points.

Clerks (at least those assigned to handle registered mail) carried sidearms. Through the 1800s, train robberies were not uncommon; mail

Highway Post Office



This Highway Post Office bus, shown in 1948, was operated by Gulf Transport, a subsidiary of Gulf, Mobile & Ohio. *William Lavendar*

The Highway Post Office (HPO) was a service begun in 1941 in response to declining rail passenger routes, with an ultimate goal of replacing the RPO system. Each HPO was a bus, outfitted with an interior like a RPO car with cases, pouch racks, and sorting tables. Clerks worked mail in transit, stopping to pick up and drop off mail at post offices along the route. Outside, the buses wore various red, white, and blue paint schemes with HIGHWAY POST OFFICE lettering.

The first route started in February 1941 between Washington, D.C. and Harrisonburg, Va. World War II slowed HPO’s growth, but additional routes were added beginning in 1946. HPO routes were generally short, around 150 miles, because of limited onboard storage space and the need to refuel buses.

By 1954, there were 134 HPO routes: 10 were operated by railroads, 65 were run by the Post Office itself, and 59 by private contractors. HPO routes grew into the early 1960s, but then began declining, doomed by the Post Office’s sectional centers and their mechanical sorting machines. The last route, Cleveland & Cincinnati, was discontinued in 1974.

and express cars were usually the targets, as a lot of registered mail included payroll cash, cash traveling among Federal Reserve Banks, and other valuables.

RPO cars were built to one of three standard layouts, with a working interior area (“apartment”) 60, 30, or 15 feet long. The walls were set up with an arrangement of slots or pigeonholes for sorting mail. Each set of pigeonholes was called a “case,” with the number of cases varying by the length of the car. Cars also included pouch racks, which held bags for sorting.

The number of clerks working on each car varied. A branch line or secondary route using a 15-foot apartment might have a single clerk and possibly a helper. A 30-foot

apartment might have 3 to 5 clerks, while a full RPO car could have 6 to 10 clerks. Major trains might carry more than one working RPO car depending upon the volume of mail.

Positions were divided, with a chief clerk, second clerk, and third clerk, down to casemen and pouch helpers. Each had specific duties regarding sorting mail, handling registered mail, and preparing pouches for picking up and dropping off mail on the fly.

Mail was sorted aboard the car to various levels depending upon its final destination. The idea was that each letter is initially sorted to a pouch for a region, then state, particular railroad, specific route, and then town or post office.

For example, if a clerk on an RPO in Georgia doing an initial sort of