

SPECIAL RATES

CREATED A SPLASH
OF COLORFUL CARS
ROAMING THE RAILS

IPD BOXCARS of the 1970s

BY JEFF WILSON

The mid-1970s brought a colorful era to American railroads. Thousands of brand-new 50-foot boxcars appeared across the country wearing a variety of bright paint schemes, most lettered for obscure short lines that few people outside of the rail industry had ever heard of.

Special incentive-per-diem, or IPD, car-use rates inspired investment in these new freight car fleets; however, by the middle of the next decade, what became known as the “shortline boxcar boom” had gone bust, with cars being stored, resold, restenciled, and repainted.

What drove the building of these boxcars and how they grew so quickly in popularity — and just as quickly faded away — is a fascinating story. Some of these cars remain in service today, having been rebuilt and repainted. It’s been nearly 50 years since they first appeared, and as the last of them run their final miles toward retirement, it seems like a good time to look back and see how they came to be.

AGING, SHRINKING BOXCAR FLEETS

The number of boxcars in service fell steadily from the 1950s through the 1960s as many commodities typically been hauled in boxcars moved to other types of cars. About 780,000 boxcars were in service in the mid-1950s (about 38% of the total freight car fleet), and most were general-service cars that could (and did) carry just about anything. However, from 1960 to 1973 the number of general-service boxcars dropped nearly in half, from 637,000 to 329,000.

Many boxcars that remained were old and weary 40-foot, 50-ton Association of American Railroads-design (AAR) steel boxcars. Although they had been the staple of boxcar fleets since the 1930s, they (along with older 50-foot AAR cars) were basically made obsolete when freight-car weight limits were raised in the early 1960s. Although the number of shippers using boxcars had dropped significantly, those that remained still wanted clean, well-maintained cars. This was especially true for producers of paper, food products, and other easily damaged or contaminated lading.

The rail industry was struggling by the late 1960s. Costs were up, revenue was down, and a number of railroads — especially in the Northeast — were in poor financial condition or even in bankruptcy. Railroads were not in a position in which adding to the general-service boxcar fleet made fiscal sense.

Tens of thousands of new boxcars were, in fact, being built from the 1960s into the 1970s, but the vast majority were specialized cars. Most were built specifically for lucrative auto-parts traffic (newly designed 50-, 60-, and 86-foot cars), along with other cars equipped with load dividers or built for other specific commodities or assignments. Although Class I railroads did add thousands of general-service boxcars to their rosters, shippers were still demanding more high-quality cars but often not getting them (or getting them after substantial delays). The result was an apparent boxcar shortage.

Rail historians and government agencies have cited that this “boxcar shortage” wasn’t actually a shortage, but a case of mismanagement of existing car fleets. They believed there were actually plenty of cars, it’s just that they were inefficiently used. Boxcar utilization was in fact quite low: an average general-purpose boxcar of the period only spent about 10% of its time loaded.

Number of boxcars in service on Class I railroads

	1960	1968	1973	1979
Plain box	637,829	408,815	329,750	169,220
Equipped box	54,900	179,734	220,165	210,126
Total boxcars	692,729	588,549	549,915	379,346

Source: AAR, reported in various editions of the *Car Builders' Cyclopedia*

Railroad-owned general-service boxcars in the 1960s followed standard AAR car-service rules of the period. Simplified, the rules required that when a foreign-road car was unloaded it was to be, if possible, reloaded for a destination on (or in the direction of) its owning railroad. If no nearby qualifying loads were available, the empty car was sent back to its owning



← This month-old Ashley, Drew & Northern IPD car was built in June 1977 by Evans subsidiary U.S. Railway Manufacturing Co. It's a 5,077-cubic foot, 70-ton, Plate B clearance car. The AD&N acquired 1,200 50-foot boxcars by 1981.

R. J. Wilhelm, J. David Ingles collection

→ Providence & Worcester No. 226 is a Plate C car built in February 1977 by FMC in Portland, Ore.; it's shown in July 1977. The railroad had about 600 IPD cars on its roster, financed by SSI (note the "Leased from SSI Rail" stencil). R. J. Wilhelm, J. David Ingles collection



← Pullman-Standard built this Plate C car for Terminal Railway Alabama State Docks in May 1978. It was financed by Itel, the largest of the IPD leasing companies; the railroad operated 1,000 IPD boxcars. R. J. Wilhelm, J. David Ingles collection

→ Hutchinson & Northern's entire 575-car roster was made up of IPD boxcars, including 325 class XF food service cars. Note the "XF Food Loading Only" lettering at right on No. 5082, built by Mexican builder CNCF in July 1979 and photographed in 1980. J. David Ingles





← This Peninsula Terminal IPD boxcar, built by Evans, has a Hennessy Slidewell wheel-ratchet door opener, common on cars in the NRUC leasing family. The two-month-old car was photographed in July 1979.

R. J. Wilhelm, J. David Ingles collection

→ Kentucky's 10-mile-long Cadiz Railroad owned 150 freight cars — all IPD boxcars funded by SSI Rail. This one was built by FMC in January 1977 and photographed in May of that year. The railroad was abandoned in 1985.

R. J. Wilhelm, J. David Ingles collection



← Atlanta & St. Andrews Bay eventually acquired 300 IPD boxcars. Number 7104, a 5,300-cubic-foot Plate C car, was built by ACF in November 1976 and photographed in November 1978.

R. J. Wilhelm, J. David Ingles collection



→ New Orleans Public Belt was a major operator of IPD cars, with 1,100 by 1981. This Plate C car was built by Pullman-Standard in February 1979 and financed by Itel Rail.

R. J. Wilhelm, J. David Ingles collection



railroad empty, either directly if there was an interchange point between the two railroads, or if not, via the reverse of the route it had traveled while loaded.

This worked reasonably well through the 1950s, when boxcars were the primary car type and there were plenty of shippers (and available loads) using boxcars. However, by the mid-1960s, the rise of specialty cars meant fewer loads for boxcars, which meant longer waits for loads or cars being simply returned to their owning railroads, leading to poor utilization and lots of time spent empty.

INCENTIVES FOR BOXCARS

Railroad ownership of equipment is complex, in that a railroad “owns” its cars and locomotives in much the same way you own the car in your driveway. You likely paid a cash down payment for your auto and financed the remainder for a set period through a bank or credit union, or perhaps you signed a long-term lease arrangement. You own it, but if you fail to make loan or lease payments, the bank or other creditors will take it away.

It’s largely the same for railroads, in that a railroad doesn’t simply pay cash for new railcars. New rolling stock would be financed by a bank or other lender or leased from a car manufacturer or leasing corporation. To railfans, it doesn’t matter whether a boxcar is financed, leased, or owned outright: all that matters is that it is painted in a railroad’s colors and scheme and carries its reporting marks.

In that period, railroads were expected to contribute cars to the national rail network roughly in proportion to their traffic levels. To encourage this, to cover the cost of car ownership, cars earned money for their owners by a per diem (daily) fee. For railroad-owned cars (including cars leased by a railroad), the railroad upon whose rails a car sits pays the owner of the car a daily fee for its use; the fee was based upon the age of the car. In the 1970s, the per diem for a new boxcar was about \$12. (Privately owned cars — that is, cars owned or leased by a shipper — followed different car-hire rules.)

In addressing the boxcar shortage, the Interstate Commerce Commission (ICC) in 1970 encouraged railroads to buy more boxcars by adding an incentive rate of about \$10 on top of the standard per diem for new boxcars (up to five years old), plus a mileage rate of 4.7 cents per mile. This incentive per-diem rate would apply only to railroad-owned cars and would be applied during the six months of peak traffic (September through February). A big incentive was that these cars would be free from AAR car-service rules: They could be reloaded and sent anywhere, and not redirected to their home railroad when empty.

A catch was that the number of IPD-qualifying boxcars a railroad could place in interchange service was limited, tied to that railroad’s roster of cars in preceding years. However, if a railroad had no boxcars during those preceding years, it could place cars in service without limits. Therefore, short lines came to own large IPD fleets.

Major IPD boxcar owners

Railroad (state)	Reporting Marks	No. cars	Mileage
Apalachicola Northern (Fla.)	ANR	800	96
Ashley, Drew & Northern (Ark.)	ADN	1,200	41
Atlantic & Western (N.C.)	ATW	625	3
Clarendon & Pittsford (Vt.)	CLP	510	11
Columbus & Greenville (Miss.)	CAGY	835	168
Corinth & Counce (Miss., Tenn.)	CCR	600	26
Hutchinson & Northern (Kan.)	HN	575	6
Lake Erie, Franklin & Clarion (Pa.)	LEF	515	15
Marinette, Tomahawk & Western (Wis.)	MTW	600	13
Maryland & Pennsylvania (Pa.)	MPA	1,200	90
Middletown & New Jersey (N.J.)	MNJ	500	14
New Orleans Public Belt (La.)	NOPB	1,100	48
North Louisiana & Gulf (La.)	NLG	850	40
Pickens (S.C.)	PICK	700	9
Providence & Worcester (Conn., Mass, R.I.)	PW	600	162
St. Lawrence (N.Y.)	NSL	3,200	63
St. Marys (Ga.)	SM	1,055	10
Terminal Ry., Alabama State Docks (Ala.)	TASD	1,000	67
Texas, Oklahoma & Eastern (Ark., Okla.)	TOE	675	40
Vermont (Vt.)	VTR	970	124
White City Terminal (Ore.)	WCTR	1,300	12
Includes short lines owning at least 500 cars			
Source: January 1981 <i>Official Railway Equipment Register</i> (earlier editions for railroads whose fleets had already been broken up)			

Shortline railroads, however, didn’t have capital or credit available to build and finance substantial fleets of cars. The unintended result was that investment companies, looking for above-average return on their money, saw an opportunity. They could finance the cars and lease them to a specific shortline railroad — meaning the cars would then qualify for IPD rates. The per diem would cover the railroad’s lease payments, plus a bit more, with the rest going to the investment company/lessor to cover the loan payments plus a tidy profit.

The arrangement appeared to be a positive for all involved: The individual railroad got new cars for virtually no expense (and usually a profit) and had a guaranteed ready supply of high-quality cars for any online shippers. Creative accounting paid the investment company a nice return on its investment (a number of accounting rules dictated how the lease and per diem payments could and couldn’t be used and divided). And shippers across the U.S. got a supply of new, clean, high-quality boxcars.

The result was thousands of new shortline-leased boxcars hitting the rails starting in the mid-1970s. During this period, the arrangements worked just as investors hoped: the IPD cars were averaging 75% or more of their time loaded, thanks to brokers and regional offices that solicited loads. This meant earnings of \$6,000 to \$7,000 annually per car — not a bad return for a \$32,000 car with an expected lifespan of 30 to 40 years. Tax breaks tied to financing were huge incentives, and investors and leasing companies projected paying off the cars in

five or so years. Thus, even when the per diem rate dropped, it would still be enough to cover regular maintenance and fleet management as the cars aged while still providing profit.

BOXCAR BOOM

More than 60 short lines acquired boxcars this way through 1980, typically in batches of 50 or 100 cars. Many short lines rostered 100 to 500 cars, but as the chart on page 31 shows, some acquired more than 1,000. Many of these railroads had owned no revenue rolling stock before acquiring their IPD fleets, and many had no (or few) online shippers that used boxcars. By 1978, more than 15,000 IPD boxcars were in service, with about 40,000 by 1981.

Many of these shortline car owners were notable in that they had more IPD cars than would fit on their own tracks if all were returned to home rails. Notable examples included North Caroli-

Brae stayed away from buying railroads directly, in most cases leasing cars to railroads that were owned by a major boxcar-using industry they served. Examples included the Oregon, California & Eastern (owned by Weyerhaeuser) and Berlin Mills Railway (owned by a paper mill).

VARIATIONS AND MANUFACTURERS

At first glance the cars — other than their paint schemes — appear quite similar: Almost all were 50 feet long with exterior-vertical-post sides and wide (10-foot) sliding doors. Their heights varied (and thus interior space/cubic-foot capacity), with some built to the shorter Plate B clearance (10-foot, 6-inch inside height) and others to taller Plate C limits (11-foot, 1-inch IH). Most were 70-ton capacity cars (gross rail load of 220,000 pounds), although a few were 100-ton (263,000-pound GRL) cars. Some had double side doors.

Design variations included the style of the ends (Dreadnaught or non-terminating), roofs (peaked or flat, in various design styles), and doors. Most had end-of-car cushioning devices, and these were typically marked with “Cushion Service” or similar lettering.

Many of these cars were equipped with wheel-ratchet door openers, marked by a wheel (which looked much like a brake wheel) next to the door operating rack-and-pinion style with a bracket next to the door (NRUC cars, in particular, used these). In theory these made it much easier to open and close doors. In practice, however, after the door was opened a few dozen times the components became misaligned and operation became difficult; most eventually were removed.

Of course, the most recognizable characteristics of IPD boxcars were their paint schemes. They wore a wide range of shades of yellow, orange, blue, green, and red, making them stand out in trains. And in a period when many Class I railroads were opting for simplified, minimalistic lettering, the IPD cars carried large, bold railroad lettering, logos, and slogans.

Through the 1970s several manufacturers were kept busy building IPD cars, including ACE, Berwick, CNCF (Constructora Nacional de Carros de Ferrocarril, a Mexican builder), Evans (under its own brand as well as through subsidiaries U.S. Railway Equipment and Southern Iron & Equipment Co., or SIECO), FMC, Pullman-Standard (PS), and Pacific Car & Foundry (Pac-car). Each builder's cars have unique spotting features, including side sill design, number of side posts, and end/roof designs.

The AAR classification for boxcars is X (for boXcar), with several subclasses. General-service boxcars are class XM, which is the category for most IPD cars. Some IPD cars received epoxy interior linings, making them suitable for carrying food products: these were classified XF. A key difference is that XF cars earned IPD rates year-round, unlike the six months of XM cars. The downside was that the commodities XF cars were allowed to carry were restricted compared to the XM cars. This class is stenciled by the capacity data; many XF cars carried additional larger lettering as well (see the Hutchinson & Northern car on page 28).

RECESSION AND BUST

Through 1979, rail traffic remained consistent, IPD boxcar utilization was high, and, for most car fleets, the boxcars were earning their investors steady returns. The new cars allowed tens of thousands of old 1940s and 1950s-era cars to be retired.

↓ Class I, II, and III railroads

The Interstate Commerce Commission (Surface Transportation Board since 1996) classifies railroads by size, with different rules (mainly regarding labor and car-hire) applying to each. Class I railroads are the largest; as of 1978, there were 41 Class I railroads, which that year was defined by earnings of at least \$50 million. The Class III designation had been dropped in 1956, with all other railroads defined as Class II; the Class III designation was reinstated in 1978, and includes short lines and switching and terminal railways. Class II lines are mainly regional railroads — per the AAR, those having at least 350 miles of track. — *Jeff Wilson*

na's Atlantic & Western (625 cars, 3 miles of track); Hutchinson & Northern in Kansas (575 cars, 6 miles of track); the Virginia Central (200 cars, 1 mile); and South Carolina's Pickens Railroad (700 cars, 9 miles). Other major owners included the St. Lawrence Railroad (3,200 cars); White City Terminal (WCTU Railway) in Oregon (1,300); Ashley, Drew & Northern (1,200); Maryland & Pennsylvania (1,200); New Orleans Public Belt (1,100); and Terminal Railway, Alabama State Docks (1,000).

The biggest investment companies in the IPD boxcar business were Itel (and subsidiary SSI Rail), Brae, National Railway Utilization Corp. (NRUC), and Emons Industries, along with many smaller investment groups. These corporations reached lease agreements with individual shortline railroads, and the largest investment groups went further by buying small railroads and also operating car repair shops (many of which built new cars from kits supplied by car manufacturers).

The largest of these was Itel, which in 1975 formed SSI Rail Corp. to handle its railcar leasing business. Itel also eventually acquired seven shortline railroads through the 1980s (including Green Bay & Western, Ahnapsee & Western, McCloud River, and Hartford & Slocumb) and operated repair facilities. Itel also entered leasing deals with many independent short lines. This was usually indicated by stenciling on cars (“Leased from Itel” or “Leased from SSI Rail”).

National Railway Utilization Corp. purchased the Pickens Railroad and the St. Lawrence Railroad, and also managed cars for the Middletown & New Jersey, Peninsula Terminal, and others; the corporation went public with a stock offering in 1978. Cars in its family wore similar blue paint schemes, with a circle logo with two arrows in it.

→ Month-old St. Marys boxcar No. 3121, built by Pullman-Standard, poses for a photo in January 1980. The 10-mile St. Marys, named for the city in Georgia it serves, rostered more than 1,000 boxcars; its major online shipper was a paper mill. R. J. Wilhelm, J. David Ingles collection



← Irel Rail leased 200 IPD boxcars to the 42-mile Mississippi Export Railroad. Number 937 was built by FMC in September 1979. Many MSE boxcars remained in service to the line through the 1990s. Paul H. Dalman, J. David Ingles collection

→ The 10-mile Berlin Mills Railway in New Hampshire had 300 boxcars, including Pacific Car & Foundry-built No. 242. The cars were financed by Brae, which concentrated on short lines owned by industries. BMS was owned by the paper mill it served. R. J. Wilhelm, J. David Ingles collection



← The Virginia Central (and its 200-plus boxcar operation) was the first IPD business venture to fail, ceasing business in February 1978. This car was built by Berwick in March 1976; by late 1978, cars were being repainted and sold to other leasing groups. R. J. Wilhelm, J. David Ingles collection



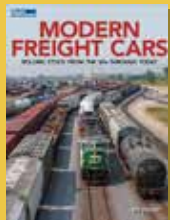
← Pennsylvania's 15-mile-long Lake Erie, Franklin & Clarion had more than 500 IPD boxcars on its roster in 1981. This class XF (food products only) car was built by Evans in April 1978; the railroad was abandoned in 1992.

R. J. Wilhelm, J. David Ingles collection

→ This former Ashley, Drew & Northern car shows the fate of most IPD boxcars, as it's been restenciled and renumbered for a new owner — in this case, Seaboard System in 1985. The car, built in 1978, was one of 1,200 IPD cars owned by the 41-mile AD&N. J. David Ingles



↑ A string of St. Lawrence Railroad boxcars — from multiple builders — rests on a track in October 1979. The entire rolling stock roster of the 63-mile railroad, a division of National Railway Utilization Corp., comprised IPD boxcars: more than 3,200 of them by 1981. J. David Ingles collection



MODERN FREIGHT CARS provides an overview of freight cars from the 1960s through today, featuring more than 200 photos and covers various types of cars and how they evolved. This is an essential guide for model railroaders who model the 1960s through today, as well as railfans and freight train enthusiasts. Available at www.KalmbachHobbyStore.com.

Things soon turned sour, however, as the boxcar boom turned to a bust. The major factor was a severe economic recession that hit the U.S. and its railroads hard in the early 1980s. Traffic levels dropped significantly from 1980 to 1983, and less traffic meant fewer loads and fewer boxcars needed. Tied to this was overbuilding — the tens of thousands of new IPD cars that had entered service had saturated the market.

The result was a severe glut of boxcars. With traffic dropping, Class I railroads — which generated most loads — could easily handle most remaining traffic with their own boxcars or Railbox pool cars. These Class I railroads, which had been unhappy with the high fees for IPD cars in the first place, began simply sending surplus IPD cars back to their home roads. With a gross overabundance of available boxcars, the ICC in 1980 (at the urging of Class I railroads) eliminated the incentive portion of the per-diem rate for shortline cars.

As more boxcars were stored, their car-hire fees slowed to a trickle. Short lines with online shippers fared slightly better, but most still had far more cars than could be used. Most lines scrambled to find room to store their cars — especially shorter Class III railroads with no online shippers.

With so many cars not earning money, investors were soon unable to keep up with loan payments on the cars. Loan defaults, bankruptcy, and other struggles followed, with many individual investors losing money. Even Railbox was not immune, as loans on some groups of cars defaulted, resulting in about 11,000 of its cars going to member railroads that had guaranteed the original notes on the cars.

Even by 1983 and 1984, when the economy began to recover, boxcar traffic did not regain its earlier levels. Many commodities that had traveled in boxcars were moving to other types of cars (lumber to center-beam cars, for example) or to piggyback trailers and containers (especially import and export goods). Some traffic was lost to trucks.

The first IPD boxcar operation to fail (preceding the recession) was Railvest, which operated 230 boxcars on its Virginia Central, a 1.5-mile industrial connecting line at Fredericksburg, Va. Railvest had purchased the railroad, then organized multiple small investors who purchased individual cars for its fleet. Railvest soon found there wasn't enough income to justify the investment (including its purchase of the railroad). The company ceased operations in February 1978, with VC cars being sold to other leasing companies beginning later that year.

Itel entered Chapter 11 bankruptcy in January 1981. In 1989, what was left of Itel's leasing division after reorganization was merged into Pullman Leasing, which changed its name to Itel Rail Corp. In 1992, its entire remaining fleet (about 70,000 cars, including all car types) was leased by GE Railcar; Itel

↓ Railbox

The industry's first solution to the boxcar shortage was Railbox, which had its beginnings in 1973. Begun by a group of 11 solvent Class I railroads (excluding most Northeastern lines), the idea was to operate a group of boxcars in a pool (much like Trailer Train intermodal equipment; Railbox was established as a subsidiary of Trailer Train). To improve efficiency, Railbox cars were free runners. Unlike railroad-owned cars that were subject to car-service rules, a Railbox car had no home railroad, and could be reloaded and sent to any point.

The first Railbox cars appeared in October 1974. Like IPD cars, they were 50-footers with 10-foot doors and exterior-post sides. They carry RBOX reporting marks and were painted bright yellow with Railbox logo and "Next Load, Any Road" slogan. They were built in several Plate B and C variations by multiple manufacturers, with about 25,000 in service by 1981. This included 2,500 cars that had a six-foot-wide plug door next to the sliding door on each side (16-foot door opening). These cars received ABOX reporting marks.

As new cars, Railbox cars earned a high per diem, but not to the level of IPD cars (they didn't qualify, as they were not owned by a specific railroad): in 1978, this was a per diem of \$9.87, plus a mileage charge. Despite the Railbox cars' lower per diem, IPD cars still found many loads as long as the economy was booming. — Jeff Wilson



This Railbox Plate B car was built by FMC in November 1975. Although colorful and featuring the same basic design as many IPD cars, Railbox cars did not qualify for incentive rates. R. J. Wilhelm, J. David Ingles collection

ceased to exist in 1994. Emons filed for Chapter 11 bankruptcy protection in 1984.

Brae survived, largely because it had focused on small railroads owned by industries (such as Weyerhaeuser) that were active online shippers. Its lease contracts required railroads to load these cars first, and Brae actively managed their use.

Other leasing companies went bankrupt or sold off holdings, with the net result that thousands of cars sat idle (sometimes for years). Most were eventually sold to other railroads (often Class I lines) or private owners. Many were completely repainted, but most were simply restenciled with their new owners' reporting marks, with their original bright schemes fading and rusting as the years passed. These cars were easily spotted in trains, and although not common, could be seen into the 2010s.

A twist was that IPD boxcars that still carried shortline reporting marks as of Dec. 31, 1981, had their per diem rates locked in for the rest of their service lives. This made them in later years very appealing on the secondary market. Some of these cars remain in service, although most are now approaching their mandatory retirement age (50 years with rebuilding).

The IPD boxcar craze of the 1970s was a colorful splash in an otherwise drab period of railroading, and these cars reflect a classic railroad era. ■