

The CARIBOO

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Issue 10

October 1992

NEWS ITEMS

Compiled by Jim Moore

The BC Court of Appeals has rejected a petition by two unions supporting the continued use of cabooses on BCR trains. The issue came to light as a result of BCR's contract settlement of 1990.

Following the Court's rejection, the railway has applied to the provincial government to have issues relating to caboose usage and crew size adjudicated as soon as possible.

BCR remains one of the last raiways in North America operating cabooses on a regular basis. ("The Carrier")

'_ast summer, BCR passenger services installed a new automated reservation and ticketing system (TOMAS: Tour Operator Management and Accounting System). ("The Carrier")

Grant Ferguson, WCRA veep, reports that work on stabilization of the PGE carshop building is virtually complete. The plywood sheathing is all in place, and work is now underway tuning up the trusses. BCR has donated a mile of 85 pound rail and a gondola load of rail hardware to the site.

Recent releases from the RS-18 CAT re-engine program are #624 in July and #620 on October 9,

The cab of SD40-2 #748 has been upgraded to BCR standards and can now serve as a lead unit.

Several SD40-2s have been fitted with Locotrol equipment, including 754 and 63-67. Three more diesels will be so equipped during 1993.

BCR has confirmed that the four new units

ordered from General Electric will be Dash 8-40CMs. The units will be numbered 4623-26, and are expected for delivery February 1993.

C425 #803 was sold in August to Mohawk, Adirondack & Northern, where it joins two other former BCR engines. This sale leaves only two C425s on-line: 802 and 811.

BCR's M420Bs will not be retired when the new GE Dash 8s arrive. Instead, they will be assigned to the Takla branch as needed. (Paul J. Crozier Smith)

The month long pulp and paper strike (June 15-July 20) cost BCR about \$5 million in car loadings Domestic woodchips, and both domestic and export woodpulp were hardest hit. On a positive note, BCR was able to offset some of the loss by exporting hundreds of cars of woodchips that were originally destined for domestic markets. ("The Coupler")

With the intoduction of its new Train Crew Scheduling Monitoring System, BCR was able to replace a manual dispatch system that dated back more than 25 years.

Under the former system, department personnel used a wall long peg board (utilizing 3000 pegs and more than 1000 name tags) to keep track of crew work assignments. (cont'd page 2)

THE TEAM

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CLOSING DATE FOR OUR NEXT ISSUE IS FRIDAY, JANUARY 8, 1993.

Along with the crew board, dispatchers used to maintain paper logs for each day. Information recorded on these logs was used to inform payroll who worked on various train and yard assignments. Finally, a variety of management reports were manually compiled from these crew logs and distributed to the field. Now all that work is done electronically. ("The Coupler")

The December 1992 issue of "Railroad Model Craftsman" contains an article by Keith MacCauley spotlighting CN 557000 series boxcars. Keith's feature also contains data on BCOL 5100-5799 and BCOL 40000-41084 series cars. These are the road's 50' foot combination door cars. Previously, Keith authored an informative article on DW&P/CN 52' bulkhead flats (RMC, Oct 90).

Will W.A.C. Bennett's dream of a railway leading into the Yukon Territory and beyond ever come true? Michael Blusson sends along this tidbit from a recent "Newsweek" issue:

Tundra Tunnel: If you thought the Chunnel between England and France was a cool idea, get ready for the sequel. organization called the Interhemispheric Bering Strait Tunnel and Railroad Group wants to build a 56 mile tube linking Alaska and Siberia. The plan--still in the pipe-dream stage--is designed to open up huge tracts of eastern Russia to oil and mineral development. It could also be the critical step for a rail line that could eventually link, say, Chicago and Paris-and freight reduce intercontinental dramatically. Russian and American officials plan to discuss the proposal at a conference in Washington. ("Newsweek" via M. Blusson)

Last summer, correspondent Eric L. Johnson spent a week locomotive chasing. "Cariboo" readers were treated to Eric's informative discussion detailing BCR's two tone green diesel color schemes in our January 1992 issue. Now Eric files this report:

BC Rail action between North Vancouver and Prince George finds trains powered mainly by Dash 8s and SD40-2s, with an occasional RS-18 on work trains or as local switchers. Yet north of Prince George much more varied engine combinations can be found. On my return trip from a holiday into the Yukon, I followed BC Rail activity between Fort Nelson and Prince George. I did not have time to see action on the Stuart or Takla Subdivisions, still I hope the following information about the other subs will be of interest. While the schedules listed here were in use at the time of my trip, BCR will readily change any to provide better service to its customers.

Fort Nelson Subdivision: Three return trips per week are made between Fort Saint John and Fort Nelson. Northbound, trips leave Sun-Tues-Thurs at about 1200 to reach Fort Nelson before midnight. Southbound trips depart on Mon-Wed-Fri at about 0700.

June 24--Ft Nelson: switching engine 630, at 0700 Extra 756 South w/ 803, 759, and remotes 685 and 740. Engine 756 is now in red/white/blue leaving only engine 753, of the SD40-2s, in green.

June 25--Ft St John: at 1300, Extra 759 North w/ 740, 685, and 756. No remotes.

Fort St. John Sub: Work extras leave Ft. St. John and Chetwynd daily, except Mondays, to meet at Septimus where trains are exchanged. Return home by 1100. At Ft. St. John, another work train goes on duty at 1430 to switch the Taylor area.

June 25--Ft St John: yard switching engines 619 and 621; to Septimus at 0700 southbound Work Extra 756 w/ 685, 740. 759, 811, and 803. To Taylor at 1430, Work Extra 619 w/ 803 and 621.

June 28--Chetwynd: switching by engine 643; northbound for Septimus at 0700 was Work Extra 646 w/ 682 and 642.

Dawson Creek Sub: Trains make three

return trips per week, Mon-Wed-Fri departing Chetwynd for Dawson Creek at 0700, to return by 1500.

June 26--Dawson Creek: at 1000 Extra 645 North w/ 682, 642, and 643. Engine 645 is now the only M-420 still in green paint.

Chetwynd Sub: Six return trips per week, Tuesday to Sunday, are made between Prince George and Chetwynd.

June 28--Chetwynd: arriving at 0615 was Extra 4613 North w/ 646 and 763. This is as far north as the Dash 8s presently travel. Departing Chetwynd at 1200 was Extra 4613 South w/ 645 and 763.

Tumbler Sub: Traffic in late June was down to two return trips per day, one leaving Quintette at about 0600, the other leaving Teck at about 1400, both returning the same day.

June 27--Quintette: at 0600 Extra 6004 South w/ 6006, with pushers 6005 and 6001. The pushers returned "light" from Whitford and coupled onto the head end of 6003 and 6002, which had just finished loading at Teck; to depart as Extra 6005 South at 1450. At Murray, engine 6007 was on standby.

June 29--Wakely: idling on the siding were CN engines 5519 and 5527 awaiting Extra 6006 South w/6004, which arrived at 1000. The electrics took the siding and BC Rail crews immediately coupled the CN engines to the string of coal cars and departed for Prince George and Ridley Island (coal trains use CN cabooses, and the CN engines are operated north from Basford. the CN/BCR junction at Prince George by BCR crews). At 1715, Extra CN 5519 North w/ 5544 with a string of empties met Extra 6007 South w/ 6005, 6003, and 6002 at Table where trains were exchanged. Wakely siding, engines 6006 and 6004 were still awaiting a northbound train of empties.

MacKenzie Sub: The "Mac Switcher" makes three return trips per week, leaving

Prince George for MacKenzie Mon-Wed-Fri at about 1200, and returning to Prince George Tues-Thur-Sat.

June 29--approaching Wakely Junction: CN Extra 5544 South was told to wait for the "Mac Switcher" to clear. Passing throught Anzac at 1830 was Extra 645 North w/ 685, 684, and 683.

June 30--Prince George: at the bridge over the Fraser River, the "Mac Switcher", Extra 645 South w/ 683, 684, and 685 arrived at 0900.

Stuart Sub: As of early September, the "James Switcher" makes five return trips per week, Mon-Fri, leaving Prince, George about 0700 for Ft. St. James, to return by 1600.

Takla Sub: An RS-18 switches locally at Fort Saint James, while trains make five round trips in sucession (ten days) from the end of the line to Fort St. James, followed by a four day break. The Takla coach was seen on a storage track at Prince George, apparently no longer in service.

INTERCHANGE

MODELING DATA sought for producing HO scale versions of PGE GE 65T and 70T engines (using Spectrum models). Write Jim Moore, 25729 Floral Court, Valencia, CA 91355-2139 USA.

SWAP PGE/BCR slides and photos. Please send list of available items. Marcel Devlieger, R.R. #2, Kettleby, Ontario L0G 1J0.

ASSISTANCE SOLICITED for project to complete artwork for decal/dry transfer set for the orange and green PGE MLW scheme. Needed are clear photos showing the type style used for the following digits: 0,2,3,4,7, and 8. Pix should be square-on, emphasizing the cab side. Photo costs will be reimbursed. Please write before sending material. Greg M. Kennelly, 7739 Gray Ave., Burnaby, BC V5J 3Z7.

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PACIFIC GREAT EASTERN RAILWAY PLYWOOD CABOOSES

by

Greg M. Kennelly

For the first forty years of its existence, the Pacific Great Eastern Railway was known as the railway that started nowhere and ended nowhere. was also considered to be a railfan's delight because of the wide variety of second-hand passenger cars which it operated. Its collection of freight equipment was equally interesting. With the purchase of seventy-five steel box cars from Canadian Car & Foundry in 1947 and twenty second-hand forty-foot refrigerators 1948, a number of 36-foot box cars and refrigerators became surplus. Although most of the cars were converted to stock cars, the railway also foresaw the need for some new cabooses. The pending completion of the extension from Quesnel to Prince George and the proposed extension from Squamish to North Vancouver were sure to increase freight traffic to the point that the ageing fleet of ten cabooses would not be adequate.

In late 1951, the Pacific Great Eastern Railway embarked on a program of rebuilding old 40-ton, 36 foot box, stock and refrigerator cars into plywood sheathed cabooses. The first two cars were completed in April 1952 and by the end of the program, in March 1957, a total of thirty such cabooses (#s 1811 - 1840) had been built at railway's the Squamish shops.

The railway's plywood caboose series actually went up to #1845, but the last five

cars were of a different design, having been rebuilt in 1960 from second-hand ex-SL&SF cabooses purchased in 1957. This article is concerned only with series 1811 - 1840. Cars 1811-1820 were rebuilt from original PGE rolling stock purchased new in 1914, while cars 1821-1840 were built from second-hand ex-CPR 36 foot box cars.

The underframes of these rebuilt cars were standard 40ton frames of conventional construction, using 3½" x 15" channels for the centre sills and 23" x 8" channel for the side and end sills. The side sills were tied to the centre sill by double-diaphragm bolsters, single-diaphragm crossbearers, and transverse 3" Z-bar. End beams were 3" x 10" channel and the platforms and steps were of open grid steel safety tread material.

A sub-floor of 2x6s laid crosswise was supported on the top surface of the side sills as well as 4x4 stringers and 2x4 filler strips on top of the centre sills. The finish floor was 1x4 laid lengthwise and supported on 1x4 furring strips running across the car on 16" centres. The space between the two floors was filled with 1" mineral wool insulation.

The car bodies were framed conventionally with 1-3/4" x $5\frac{1}{2}$ " body posts with a 5/8" tie rod set into the inner surface of each post. The walls were sheathed both inside and out with $\frac{1}{2}$ " plywood. While the

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main car body was of wood construction, the cupola was welded up from steel plate for extra strength. All thirty cars were fitted with conventional wooden roof walks.

From the modeller's point of view, there were a number of differences in the cars of this series and, as usual, the only way to ensure an accurate model is to obtain photographs from the correct time period for the car you want to build. The first two cars in the series equipped with K-type brakes but, in 1955, both were converted to the AB-style brake which was used on all later cars. The cupola was at the Bend of cars 1811 - 1815 and at the A-end of all the later cars.

There were differences in the interior layout and window arrangements of the cars as The first five cars well. (1811-1815) are known to have been built as shown in the drawings. Cars 1817-1840 (and presumably 1816, since it was built at the same time as 1817) had the positions of the stove and sink reversed. The right side of these later cars had of pairs short, high windows instead of the one short pair shown on the The smokejack on drawing. these later cars was located immediately in front of the cupola and was moved toward the centerline of the car so that it did not block a trainman's view from the cupola. Photographs taken by the late Fred Nott in March 1965 show cars 1813 and 1815 with the smokejack moved to the same position as the later group of One must surmise that the interior was re-arranged as well.

Originally, the cars were painted box car red with bright

red ends on both the car body and the cupola. Grab irons were yellow, as were the steps below the level of the 2nd step and the end railings outboard of the ladder and vertical support. 1811 & 1812 are known have been lettered yellow, while 1816-1840 had white lettering. The original lettering colour for 1813-1815 is unknown - it may have been white or yellow. The roofs were black. Interior colours were ivory on the upper walls and ceiling, green on the lower walls, and brown on the floor.

Around 1961, the colour scheme was changed to an orange car body with black fascia board and lettering. slogans Safety were applied to cars at this time. Cabooses built in 1960 were still painted box car red but, by March 1961, car 1833 wore the orange scheme. During their lifetime, many of these cabooses had the paired woodsash windows replaced with single aluminum sash. Again, photographs are essential to establish when this took place for a particular car.

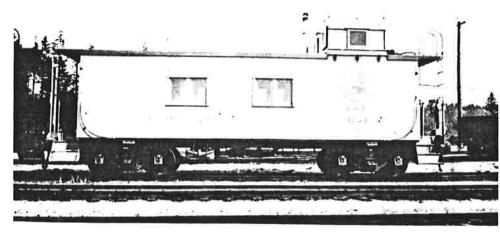
Sometime in the middle 1960s, the car bodies of these cabooses were strengthened by adding strap metal diagonal braces at all four corners. Again, photographs are essential to determine when this took place for a particular car. An April 1963 photograph by the late Bill Hewlett shows #1833 without the but the braces March photos by the late Fred Nott show the braces in place on most of the cars. These same photos show the cars painted with the large PGE initials in black. The cupola roof shows as orange in these photos.

At least ten of these very distinctive plywood cabooses

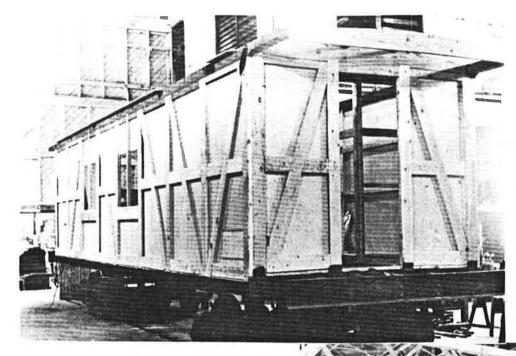
have been either preserved by various museums or historical societies or converted for service as British Columbia Travel Information Centres.

Plywood Cabooses (Series 1811-1840)

	Numbers	<u>Date rebuilt</u>	Weight	Rebuilt from	
box c	1811 ar	4/52	42700	36' steel frame	
box c	1812	4/52	42700	36' steel frame	
box c	1813	10/53	42700	36' steel frame	
box c	1814	10/53	42700	36' steel frame	
box c	1815	10/53	42700	36' steel frame	
DOX C	1816 1817	/55	42700	stock car # 502	
	1818	/55 /55	42700 42700	stock car # 503 refrigerator # 801	
	1819 1820	/55 /55	42700 42700	refrigerator # 802 refrigerator # 803	
	1821 1822	4/56 4/56	42300 42300	ex-CPR 36' box car ex-CPR 36' box car	
	1823 1824	4/56 4/56	42300 42300	ex-CPR 36' box car ex_CPR 36' box car	
	1825 1826	4/56 6/56	42300 42300	ex_CPR 36' box car ex_CPR 36' box car	
	1827 1828	7/56 7/56	42300 42300	ex-CPR 36' box car ex-CPR 36' box car	
	1829 1830	8/56 9/56	42300 42300	ex-CPR 36' box car ex-CPR 36' box car	
	1831 1832	10/56 12/56	42300 42300	ex-CPR 36' box car ex-CPR 36' box car	
	1833 1834	12/56 12/56	42300 42300	ex-CPR 36' box car ex-CPR 36' box car	
	1835 1836	1/57 2/57	42300 42300	ex-CPR 36' box car ex-CPR 36' box car	
	1837 1838	2/57 2/57 3/57	42300 42300 42300	ex-CPR 36' box car ex-CPR 36' box car	
	1839 1840	3/57 3/57 3/57	42300 42300 42300	ex-CPR 36' box car ex-CPR 36' box car	
		•			



PGE plywood caboose1833. North Vancouver, April 1963. Photo by the late Wm H. Hewlett.

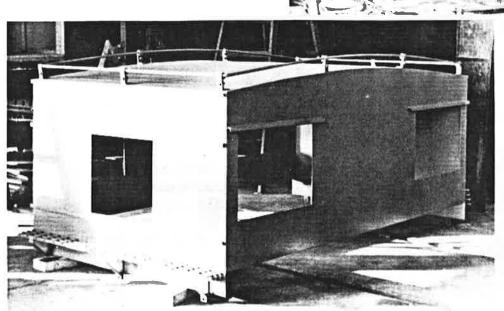


Left side of caboose 1811 under construction showing carbody framing.

February 1952.

Photo courtesy of BC Rail library.

eft side view of caboose 1811 anowing K-type brake cylinder. Arch bar trucks were for shop use only. March 1952. Photo courtesy of BC Rail library.

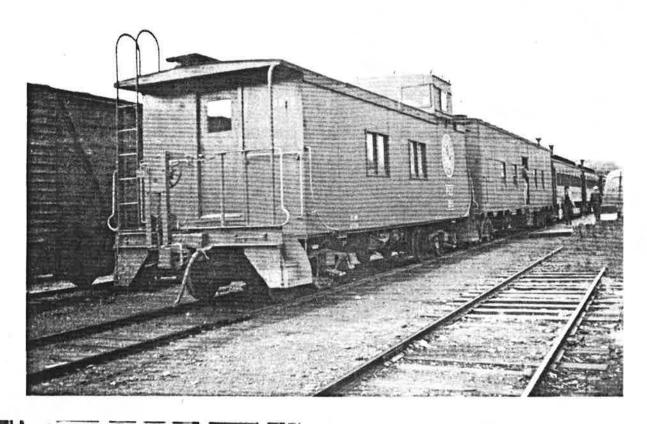


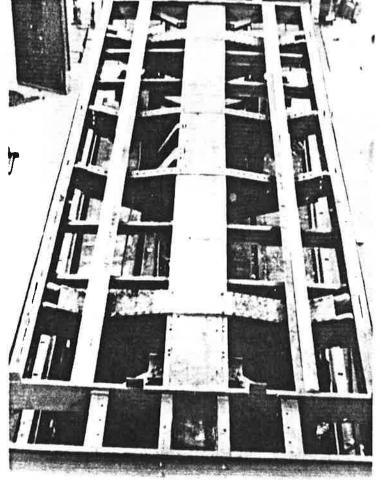
Welded steel cupola for plywood caboose.

March 1952.

Photo courtesy of BC Rail library.

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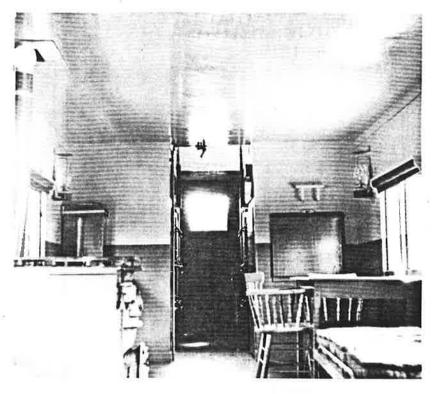
PGE caboose 1815, circa 1957. Location unknown. Photo by the late Wm. L. Hewlett. Greg M. Kennelly collection.

Steel underframe from 36' box car following conversion for use on caboose 1811.

January 1952.
Photo courtesy of BC Rail library.

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Interior view of caboose 1811. Looking toward B-end (cupola). April 1952. Photo courtesy of BC Rail library.

Interior view of caboose 1811. Showing A-end of car. April 1952. Photo courtesy of BC Rail library.



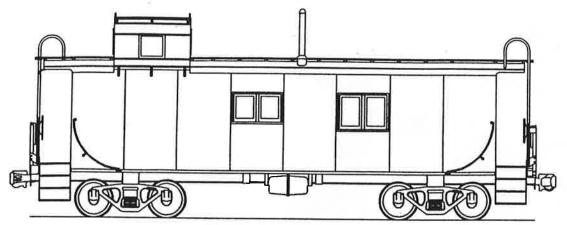


HISTORICAL & TECHNICAL SOCIETY

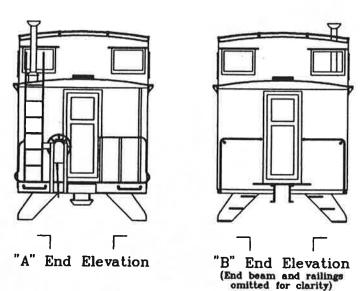
The CARIBOO is published quarterly for enthusiasts and modelers of the Pacific Great Eastern Railway and its successor lines. Sample issues may be obtained for \$3.00 U.S. funds (posted to North American addresses). All editorial contributions are welcome. Send all correspondence to: Jim Moore, 25729 Floral Court, Valencia, California 91355-2139, U.S.A.

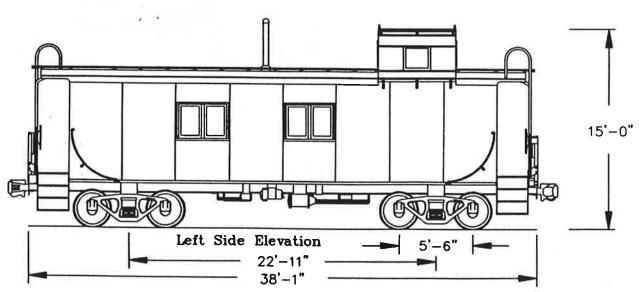
PACIFIC GREAT EASTERN RAILWAY

Caboose Series 1811 - 1815 (Series 1816 - 1840 similar)



Right Side Elevation



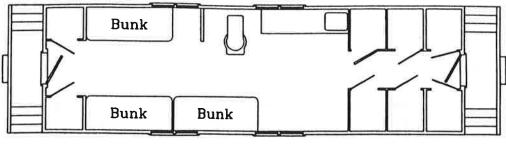


Scale: 1 = 87.1 (Full size HO)

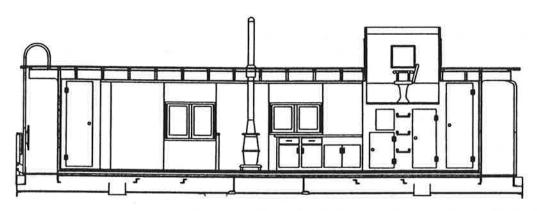
Drawn by: Greg M. Kennelly All rights reserved

PACIFIC GREAT EASTERN RAILWAY

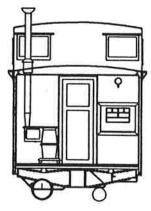
Caboose Series 1811 - 1815 (Series 1816 - 1840 similar)



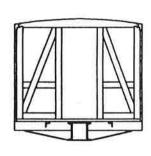
Floor Plan



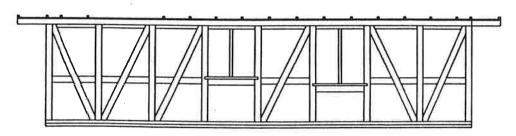
Longitudinal section



Cross section



Carbody End Framing



Carbody Right Side Framing

Scale: 1 = 87.1 (Full size HO)

Drawn by: Greg M. Kennelly All rights reserved

THE P.G.E. HACK IN HO-SCALE

By M. Devlieger

Photos and drawings by the author

As a young trainman for the British Columbia Railway (ex Pacific Great Eastern Railway) in the 70's working the hot summer nights, the wooden hacks would become our homes for weeks on end of work train service. I remember the days well.

BCR's version of the little red caboose was actually a group of wooden hacks painted a salmon orange. Originally built by the PGE on the underframes of a variety of older rolling stock, they saw many years of revenue service through the 1950s and 60s. With the introduction of the wide vision steel cabooses in the late 60s, these cars were relegated to way freight and work train service in the 70s and early 80s. Now that BC Rail will follow the suit of other major railways by doing away with cabooses in regular service, steel cabooses are being used for work train service. The old wooden hacks can still throughout British Columbia as MI15 CIIM pieces.

Luckily we can model the PGE hack in HOscale from an existing Juneco Wooden Caboose Kit number CN K-1. I chose the CN kit rather than the CP one because of the cupola window placement. Follow the basic instructions in the kit, but modify the following steps:

- Step 2: Reverse the end sheets so that the grooves are inside or cut new stock. This gives a smooth surface to represent the plywood sheathing of the prototype.
- Step 6: File roof to a concave shape before assembly.
- Step 9: As with the ends, turn the sides over so the smooth side is out. Scribe vertical grooves every 4 feet starting from windows out (to simulate 4 x 8 plywood sheathing).

Step 14: Eliminate tool box and add straight type grab irons 1/16" down from the roof vertically on the end sheets on each side (see figure 3).

Step 17: Before gluing on the roof, add enough weight inside the car to bring the model up to the NMRA recommended finished weight of 3.5 ounces. Use .020 stock wood sheeting to form the curvature of the roof,

run the wood grain of the sheeting parallel with the roof and cement. Install side corner bracing using .010 inch x .060 inch styrene strip (Evergreen 103) and press in 3 upper and 3 lower rivets with a pin from the back side (see Figure 1). Note that these side braces were installed some time after 1961 on most of these cabooses. Again, check photographs.

Step 20: Using .010 inch sheet styrene frame the cupola windows, use a continuous strip horizontally above and below the windows first then fill in with remaining styrene. Remove all the mullions from the window panes (see Figures 1 & 2). Assemble and finish by using an automotive fill and glaze putty, sand with 400 grit paper. File bottom of the cupola to fit the contour of the roof. Use .010 inch styrene for cupola roof.

Step 21: Omit. Place and mark finished cupola on car according to drawing. Do not glue, remove roof trim (as in step 18) along cupola markings only (see Figure 1).

Step 22: Install 400 grit sand paper for roof surface, then install cupola with elastic bands only. Install cupola side window guides above and below the window horizontally the length of the cupola using the .020 x .020 inch stock supplied (see Figure 2).

Step 23: Extend roof walk 1/8". Install angle bracket under roof walk overhang on each end of the car using .015 wire (see Figure 3). Check photographs for your particular caboose. In later years, most of these cabooses had the roof walks removed.

Step 24: Remove as per drawing and replace with .015 wire as in Figure 3.

Step 25: Optional. To improve ladder as in figure 3 cut ladder at roof line leaving last rung intact, cut this top rung in the center. In a vice or brake bend the side of the ladder at right angle to the rungs with the top rung now becoming the roof bracket. Drill two holes in the roof ends to accommodate. Cement the ladder in place. For the roof ladder rails curl two - 1 inch lengths of .015 wire around a 1/4" diameter dowel. Cut according to Figure 3 and drill 2 - number 78 holes at the top of the roof to accommodate this railing. Cement the other end of the railing to the inner top of the ladder.

Step 26: Cement 400 grit sand paper to top of cupola and mount continuous grab iron as in Figure 2. (Editor's note: Photographs from 1965 show the cupola roof painted Some cars may have received orange. tarpaper over the steel roof - check Paint caboose, cupola, windows photos.) doors and all Salmon orange. lettering (CDS 124) and spray dullcoat. Install window glazing and cement windows, doors and cupola in place.

Step 27: Discard upper portion of smoke jack and file to create a straight pipe stack as in Figure 1. Form .015 wire around the stack and secure to upper front of cupola. Using metal roof walk (1/8" x 1") install to side of cupola. Form the three brackets using flat wire (see Figure 2).

Step 29: Install leaf spring trucks (KD or equivalent), air hoses and KD couplers. Install rerailer below center of window and paint yellow. Install red jewels to the rear of the caboose marker lamps and green jewels to the side and fronts. Cement the markers in place according to Figure 1. Paint under body, roof, trucks and hand rails black.

Weathering: Since this is an old prototype it would warrant heavy weathering, however. I would recommend chalks or water colours since these are removable. If you must use a fixative try hair spray this is also washable later on with a damp sponge. I find that the value of the car remains much greater with removable weathering since it can be returned to new condition with ease. After all, there is nothing like seeing favourite car available Fleamarket, only to be dismayed to see that it was weathered using a number 5 paint roller.

There you have it. Your caboose is now ready for some HO work service.

BILL OF MATERIAL:

Air hoses - Detail Assoc. 1508

Eye bolts - Detail Assoc. 2206

Rerailer - Juneco C-33

Metal-style roof walk, 2"
.015 wire

Chain, HO - 30 link, 1"
400 grit wet/dry sand paper
.010 sheet styrene
.010 x .060 styrene - Evergreen 103

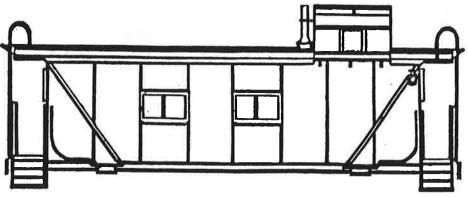
Jewels - green(Juneco)

Jewels - red(Juneco)

Lettering - CDS 124

Couplers - KD number 5

Leaf spring trucks - KD



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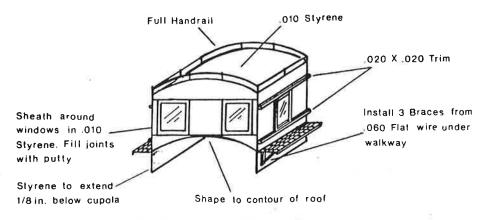


FIGURE 2

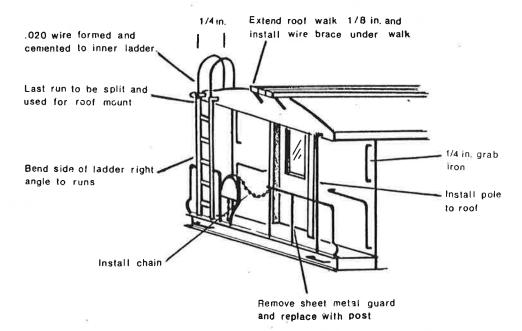
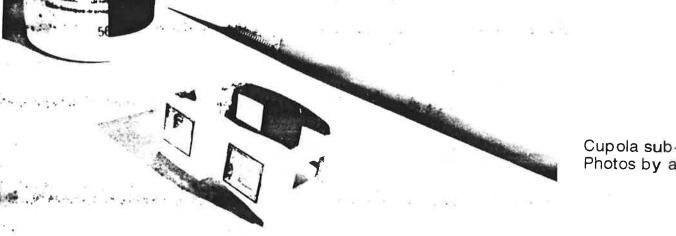
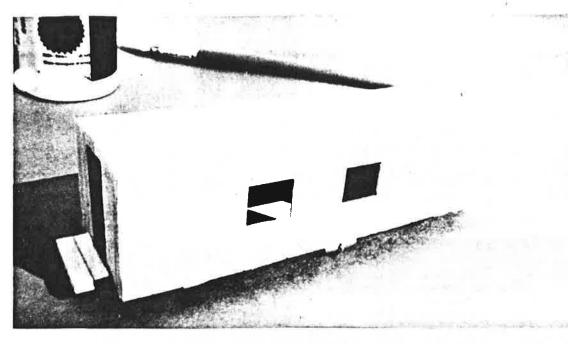


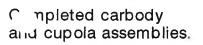
FIGURE 3

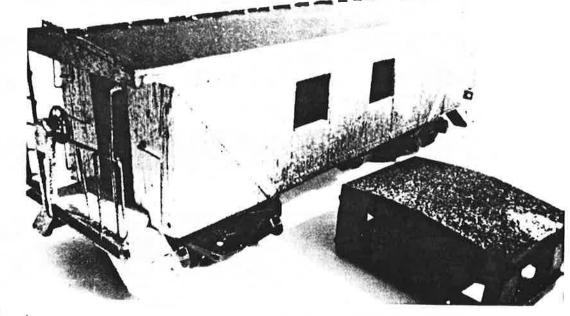


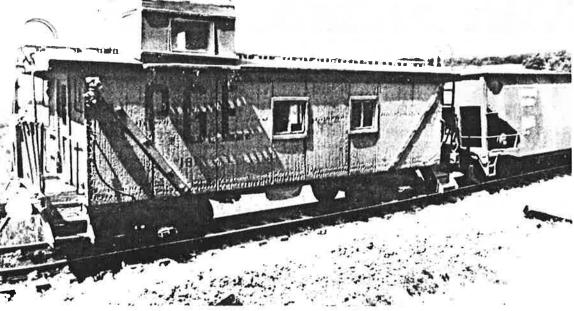
Cupola sub-assembly. Photos by author.



Carbody with wood sheathing installed.







Finished model on author's layout.

What we're moving A list of the major commodities BC Rail ships

Forest Products — 62% of freight revenue —	Commodity	Where it originates	Where it goes	What it's used for
	A A Computer of			n tha the second and second
	Lumber	Lumber mills between Squamish and Fort Nelson	North American and overseas markets	Home construction and renovation
	Allegation of the second of th		(A. A. A	
	Logs and Poles	Majority from Takla and Niteal	Sawmills in Prince George and Fort St. John areas	Lumber products and poles
	e Militario de la compansión de la compa		e production of the second sec	
Bulk Products — 31% of freight revenue (19% coal)—	Coal	Mined at Quintette and Bullmoose mines near Tumbler Ridge	Japan via Prince Rupert Terminals	Metallurgical coal is used in the steel making process
	* Sulpino .	economic residence		11300
	• Chemicals	CanadianOxy in North Vancouver , FMC in Prince George and Marsulex in Prince George	Pulp mills along our line and on Vancouver Island	Hydrogen peroxide , caustic soda and sulphur dioxide are used in the pulp-making process
	a limple or obtained	Astronomic Control		
	Concentrates	Copper concentrate from Gibraltar Mines in Williams Lake (we handle all the copper from that mine)	Pacific Rim (mainly Japan) via Vancouver Wharves	Used to make copper and for industrial automotive purposes
	516) - 12 - 13			
	Other	Various line points, mainly the Lower Mainland	North to mills and distribution centers in Fort St. John, Fort Nelson and Prince George	Machinery, cement, time, steel etc. used as building supplies for construction and industrial sites
	。 《表现的现在分	an and the second	STOM STATE OF STREET	5-1-3 H205 (41.7)
Intermodal —7% of freight revenue—	Beverages	Lower Mainland suppliers — Coca-cola, Gray Beverage, Labatts, Molson and Liquor Board	Points between Williams Lake and Fort Nelson and west of Prince George to Prince Rupert	Consumption
	, 以 处证证(10.00%	Maria de Ma Maria de Maria de Ma		in Mary Island
	Chemicals	Road salt from Lower Mainland supplier	Quesnel and Prince George	Used for roads in winter a
	Pulp and Paper	Prince George and Quesnel mills	North Vancouver, mainly for export markets	Offshore paper-making
	· · · · · · · · · · · · · · · · · · ·		**************************************	
	Less than Truck Load (L.T.L)	Variety of Lower Mainland suppliers	Williams Lake, Quesnel and other points north and west	A variety of goods for local consumption