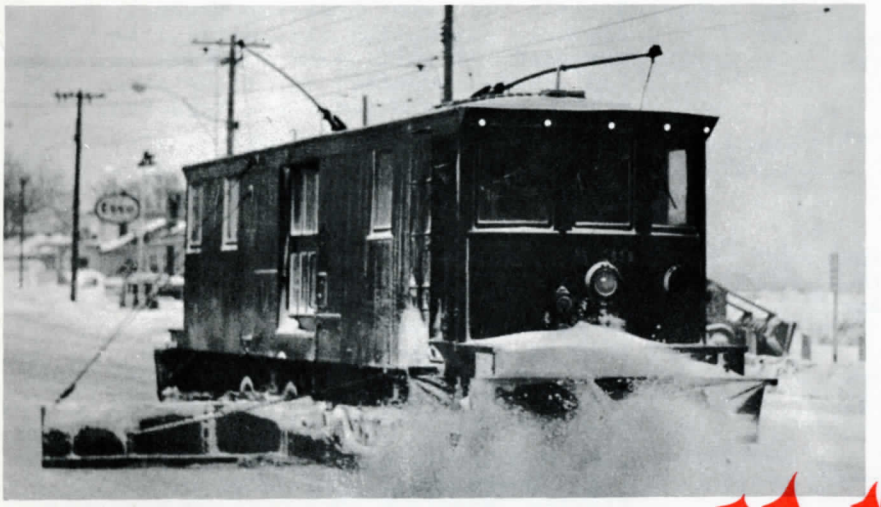
1965 EXCURSION
GEORGETOWN > ALANDALE
"FORMULA FOR FUN"
251

newsletter

December 1966 • 50c



Merry Christmas

Upper Canada Railway Society

newsletter

Number 251 December, 1966

Published monthly by the Upper Canada Railway Society, Inc., Box 122, Terminal A, Toronto, Ont.

Editor — **James A. Brown**

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Please address NEWSLETTER contributions to the Editor at 3 Bromley Cres., Bramalea, Ontario. No responsibility is assumed for loss or non-return of material.

All other Society business, including membership inquiries, should be addressed to UCRS, Box 122, Terminal A, Toronto, Ontario.

The Cover

With White Christmas weather upon us, the railways are unlimbering their snow removal equipment for another season. Recall for a moment scenes such as these from the past, depicting TTC S-39 sweeping along the Lakeshore (Ted Wickson), or CPR 975 with a plow on the Manitoba plains (Dick George).

Contributors to this Issue

John Bromley, Bruce Chapman, Bill Coo, Ray Corley, John Freyseng, Tom Henry, Ed Jordan, Ian MacDonald, Bob McMann, Steve Munro, Dave Stalford, Ted Wickson, Dick George.

Production; John Bromley, Tom Henry.

Distribution; Barry McDermott, Ken McCutcheon, George Meek, Steve Munro, Rex Rundle, Ted Wickson, J. Thompson.

READERS' EXCHANGE

WANTED to purchase Bulletin #83 of the Railway and Locomotive Historical Society; photographs of CN 4-8-2 6067, and steam hauled trains on CPR's Kettle Valley Line. Robert Baker, 20 Melfa Ave., CFB Petawawa, Ontario.

FOR SALE: A complete set of UCRS NEWSLETTERS in excellent condition, from December 1960 to October 1965, inclusive. L.F. Hole, 28 Peking Road, Scarborough, Ontario. (261-6649)

Coming Events

Regular meetings of the Society are held on the third Friday of each month (except July and August) at 587 Mt. Pleasant Road, Toronto, Ontario. 8.00 p.m.

Jan 6th; (Fri)	A visit to the Lakeview thermal-electric generating station will be arranged if sufficient interest is indicated. Contact the Entertainment Committee if you are interested.
Jan 14th; (Sat)	The first excursion of 1967, using TH&B and NYC diesel power from Hamilton. Details elsewhere in this issue.
Jan 20th; (Fri)	UCRS Regular and Annual Meetings, preceded by a special general meeting as previously announced by mail to regular members. Annual reports will be presented and elections held for the 1967 Board of Directors. A photo quiz will provide the entertainment.
Jan 27th; (Fri)	UCRS Hamilton Chapter regular meeting. Board Room, CNR James Street Station, Hamilton, Ont. 8.00 p.m.
Feb 3rd; (Fri)	A visit to a local model railroad club is being arranged, and may require that this outing be held earlier in the week. Details next month.
Feb 17th; (Fri)	Regular meeting, featuring an illustrated talk on 'Night Photography', by Bob McMann.
Feb 19th; (Sun)	6218's first excursion weekend of 1967. Keep this date open for a winter branchline excursion never before undertaken. Details next month.
March 7th; (Fri)	The Annual UCRS Auction of railroadiana.

On behalf of the Officers and Directors of the Society, may I take this opportunity of wishing all of you a very Merry Christmas and a Happy and Prosperous New Year.

/JAB

expo67

1867 1967 CANADA-CONFEDERATION

RAILWAY *News and Comment*

CP RUNS HOLIDAY TRANSCONTINENTAL

With little advance publicity, Canadian Pacific unveiled its Christmas season Holiday Special, a Scenic Dome Transcontinental operating on a schedule strongly reminiscent of the late Dominion. The Special will make three round trips only, departing Toronto/Montreal on December 16th, 18th and 20th for Vancouver, and leaving the west coast city on December 16th, 20th and 31st for the east.

WHITE PASS INVESTIGATES EXTENSION

The White Pass and Yukon Railway has undertaken preliminary studies for a proposed $40-million 225-mile extension of its line from the present terminus at Whitehorse, to the lead-zinc ore deposits of the Ross River area in the Yukon Territory. There is a good possibility that the narrow gauge road, now operating 110 miles of line from Whitehorse to Skagway, Alaska, may be converted to standard gauge when the line is extended.

Also under consideration is a possible 325-mile extension north of Whitehorse to iron ore holdings on the border of the Northwest Territories.

TURBOTRAIN PROGRESS REPORT

Behind the scenes, progress is being made on CN's ambitious Turbotrain project. At the builders', Montreal Locomotive Works, car bodies are taking shape while at the terminals of the route, Toronto and Montreal, maintenance and servicing facilities are under construction.

At MLW, several Intermediate Car (IC) bodies are complete and the Power Dome Cars (PDC) are beginning to assume a recognisable shape. The 25 gas turbines will be supplied by United Aircraft's Pratt and Whitney engine plant in Longueuil, Quebec.

The first trainset can be expected from MLW in early spring, and following a short de-bugging session in the Montreal vicinity, will operate between Toronto and Montreal for performance testing and training of crews. By early June, it is expected that four of the five trainsets will be delivered, thus permitting inauguration of regular service.

Present plans call for each train (comprised of two seven-car trainsets) to make three one-way trips between Toronto and Montreal each day, departing each city at about 0800, 1300 and 1800 for the four-hour trip. The fifth set will be used as a backup for the Toronto-Montreal service, and may possibly see duty on a short run out of Montreal -- perhaps to Ottawa or Quebec City.

Because all electrical power for heating, air conditioning and lighting on board the trains will come from a turbine-powered alternator, elaborate standby facilities have to be provided at stations where the train may layover for any appreciable period of time. Because of the external noise, and high temperature and volume of exhaust gases from the turbines, it is preferable that they be shut down when standing in a station, and all power be supplied from the 'shore' supply. Hence, Toronto's track 1 and Montreal's tracks 19 and 20 are being equipped for 'docking' the Turbotrains. Similarly, to minimize disturbance in the station, only four of the eight traction turbines will be running when the train leaves the station; the other engines will be started once Turbotrain is clear of the trainshed. The turbine's easy starting, quick warmup characteristics make this mode of operation possible.

In Montreal, the trains will be maintained and serviced on tracks 3, 4 and 5 in Central Station. All cleaning, fuelling and repairs will be done there, within sight of the nearby commuter platforms. In Toronto, a servicing facility is under construction on the north side of Spadina coach yard, for limited turnaround servicing only. The trains will be in continuous use during the day and will be refuelled only once daily, during the overnight layover.

Each seven-car trainset consists of one Power Dome coach lounge with 28 coach seats and 24 dome lounge seats; two 56-seat intermediate coaches; one 36-seat buffeteria coach; one 54-seat intermediate coach; one 40-seat parlor car with bar; one Power Dome parlor lounge with 22 parlor seats, 12 dome lounge seats and bar. All cars are permanently coupled together, with automatic air and electric couplers at the ends of the PDCs. When two trainsets are coupled, the nose doors fold alongside the body, and a diaphragm between units allows passengers and crew to pass between the sets. Between the ends of the cars within a set, there will be no doors, as the close coupling and airtight diaphragms will not require their use. Exterior car doors will be the power operated sliding type, with retractable steps which raise or lower to accomodate platform heights at Montreal or Toronto.

All units are being built entirely of aluminum, resulting in very low weights of 25½ tons for a PDC and nine tons for an IC. PDC's will measure 73 feet overall, IC's 56'-10", coupled. Turbotrain exteriors will be finished overall in blue-white, relieved only by the customary CN red nose with a black anti-glare panel on its top surface.

At the present time, two three-car prototype trainsets are nearing completion at the Pullman Company's Chicago factory, destined for the New Haven's Boston-New York service as part of the North-east Corridor Project. These units will first operate in February -- including some 160 m.p.h. runs on NYC's Stryker, O.-Butler, Ind. "Black Beetle" test track -- prior to delivery to NH.

With Turbotrains, Rapidos, Cavaliers, and any number of freight trains in operation next summer, Canadian National's Kingston Subdivision will be a very busy stretch of track indeed!

CN'S VANCOUVER PROJECT PRESSES ON

Canadian National recently awarded a contract to the Canadian Bridge Division of Dosco Industries Ltd. for the supply, fabrication, delivery and erection of five truss spans for its new Second Narrows railway bridge across Burrard Inlet, just east of the present bridge. The new 2,174-foot structure is part of CN's $27-million Vancouver project which includes a two-mile tunnel, construction of a support yard in North Vancouver and doubling the capacity of CN's existing yard at Port Mann.

DORVAL TO GET NEW CANADIAN NATIONAL STATION

CN's present station at Montreal's suburban Dorval will be demolished early in February to make way for a modern $125,000 structure. Passage to and from the platforms will be via underground tunnels, while the area surrounding the new station will be fully landscaped.

The existing station traces its history back to 1900 and the days of the Grand Trunk Railway. A temporary structure will be built just east of the present site to serve passengers during the construction period.

WORTH NOTING...

-The chairman of the Interstate Commerce Commission, John W. Bush, is of the opinion that the PRR-NYC merger will never be consummated if it continues to receive delays at the hands of the courts. Elsewhere, Mr. Bush asked for and received the assurance of the Western Pacific Railroad that it would continue to operate its portion of the famed California Zephyr -- between Salt Lake City and Oakland -- at least until February 14th.

-A recent report on the Canadian Pacific Railway by Wood Gundy Securities Ltd., shows that Canadians now hold 55% of the railway's registered voting stock, as compared with 14.5% in 1955.

-The Board of Transport Commissioners has postponed indefinitely CP's proposed increase in its Montreal Lakeshore Commuter fares, originally scheduled to go into effect in September.

-Stanley F. Dingle, system vice president for Canadian National, retires on January 1st. Succeeding him will be W.C. Bowra, currently vice president of CN's Prairie Region, and a veteran of many responsible posts in southern Ontario.

-A quarter-mile test section of Swedish prestressed concrete ties was installed recently west of Princeton, Ont., at mile 39.7, Dundas Subdivision.

-City and Metro officials in Winnipeg are meeting jointly to study the possibility of acquiring CN's Fort Rouge yard property, now considered surplus following the opening some years ago of Symington Yard, in nearby St. Boniface.

BELOW: One of CP's latest motive power acquisitions, SD-40 5523, leads eastbound train 916 through Glen Major, Ont., on the Havelock Subdivision, detouring the derailment north of Pickering. /J.A. Brown

BELOW: This tangled wreckage shows clearly what happens when two gondola cars are dropped with considerable force onto a diesel locomotive. The unfortunate subject is CP road-switcher 8737. /J.A. Brown

LEFT: In spite of the stresses of the wreck, this propane tank-car remained sound, and the propane was removed merely as a precautionary measure.

/J.A. Brown

BELOW: The extent of the mishap is clearly shown in this aerial view. Note (arrow) the wreckage of the dump truck.

/Toronto Telegram

EXPLOSION SCARE IN TRUCK-TRAIN CRASH

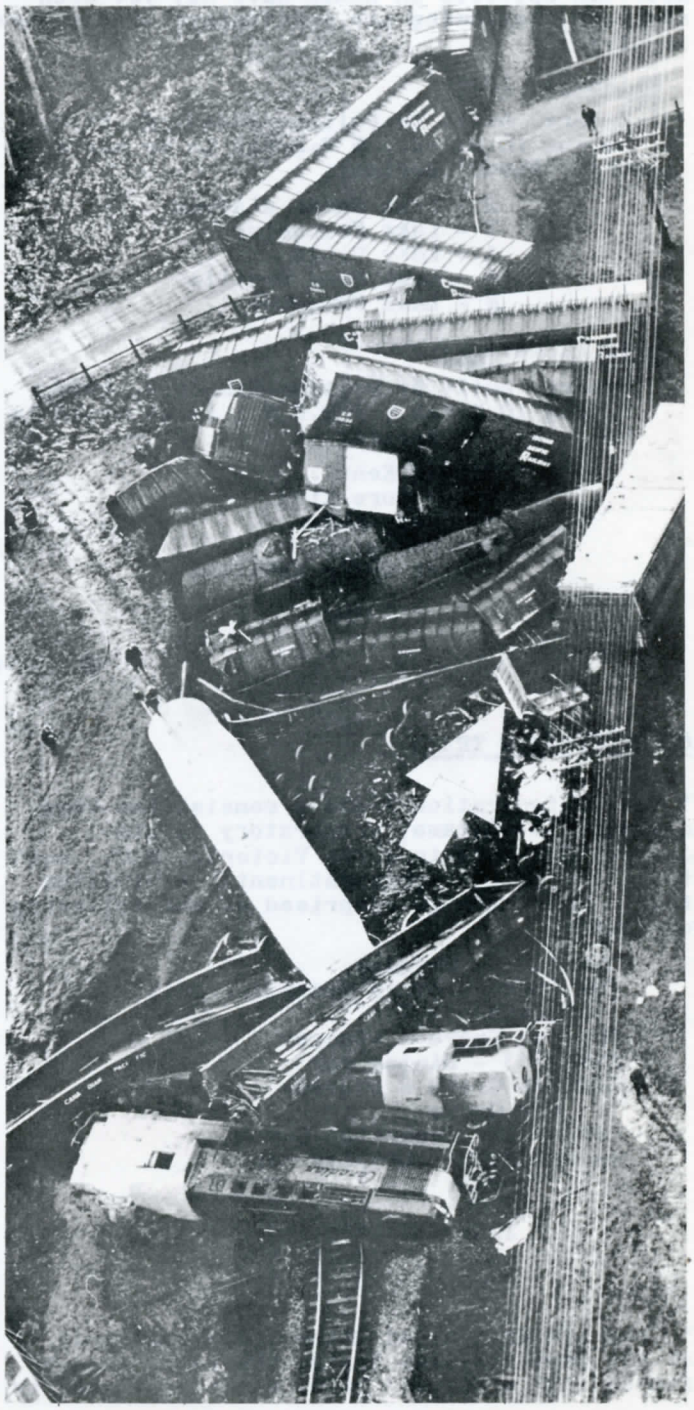
Canadian Pacific's main Toronto-Montreal line was blocked for 48 hours recently when a 128-car eastbound freight collided with a loaded sand truck, killing the truck driver and his small son and derailing 22 cars. The accident took place at the little-used Church Street crossing in Pickering township, about 12 miles east of Toronto Yard, at about 1.30 p.m., December 13th.

One of the derailed cars was loaded with 26,000 gallons of propane, and local officials, fearing an explosion, cordoned off a nine-square-mile area and evacuated nearby residents. Wrecking crews were unable to begin clearing the line until the propane had been pumped into waiting tank trucks and the residual vapours burned off, a process which took well over a day to complete.

The auxiliaries, from Toronto and Smiths Falls, began clearing the line on the evening of December 14th, and by noon the next day, a 'hole' had been punched through the wreckage to permit resumption of normal service.

Regular CP traffic followed two detour routes while the main line was blocked. The piggyback trains and a portion of regular Toronto-Montreal traffic was detoured via CN's Kingston Subdivision between Port Hope and Toronto; trains taking this detour and destined for CP's Toronto Yard, operated through the Union Station area to West Toronto, and thence in reverse to the yard at Agincourt. The remainder of the traffic used CP's Havelock Sub., handicapped by numerous curves, grades and short passing sidings. Under normal circumstances, both the Havelock Sub and the Mactier Sub (running north from Toronto) are handled by a single dispatcher; with the added burden imposed by detouring trains, an emergency dispatching desk was set up for the Mactier Sub, and for a time train orders were transmitted on that line by telegraph.

The locomotives involved, nos. 8791 and 8737, appeared to receive most of their damage from their own train. No. 8737 was most severely damaged, having finally come to rest beneath two empty gondola cars. The fact that most of the derailed cars were empty has been credited with minimizing the seriousness of the mishap; had the train been loaded, its inertia and hence resulting damage would have been that much greater.



EQUIPMENT *Notes*

CANADIAN NATIONAL

* The following numbers have been assigned to the Hawker Siddeley equipment recently ordered for Southern Ontario service;

Coaches;	360-374
Club Cars;	320-324
Cafe Lounges;	340-344

* Twenty-six more sleeping cars have been purchased by Canadian National from U.S. lines. The 'new' cars will enter service in May. Although specific CN names have not yet been assigned, following are particulars of the cars involved:

Milwaukee Road:

5 cars, built by Pullman-Standard, 1949, having 10 Rttes., 6 D.B.R.; to be named in CN's 'River' series;

2 - Lake Couer d'Alene
3 - Lake Keechelus
4 - Lake Pepin
6 - Lake Pend Oreille
8 - Lake Pewaukee

Erie Lackawanna:

5 cars, built by Pullman-Standard, 1949, having 10 Rttes., 6 D.B.R.; to be named in CN's 'River' series;

Marvin Kent
James Gore King
Benjamin Loder
Charles Minot
Daniel Craig McCallum

Florida East Coast:

12 cars, built by Pullman-Standard, 1949, having 10 Rttes., 6 D.B.R.; to be named in CN's 'River' series;

Argentina	Cuba
Bahamian	Guatemala
Brazil	Havana
Caparra	Honduras
Chile	Oriente
Columbia	Venezuela

2 cars, built by Pullman-Standard, 1954, having 4 Sections, 4 Rttes., 5 D.B.R., 1 Compartment; to be assigned CN names Windigo and Manitou;

Jamaica Scott M. Loftin

2 cars, built by ACF, 1949, having 6 D.B.R., Bar lounge; to be assigned CN names North Star and North Wind, these cars are to operate in Toronto-Chicago service;

Magnolia Oleander

* CN has ordered 200 general service flat cars from International Equipment Co. Ltd. Delivery is scheduled to begin in January.

* The following listing gives numbers assigned to Canadian Pacific coaches now under lease to CN; the CN number is shown first;

650 - 2171	659 - 2221	668 - 2136
651 - 2173	660 - 2222	669 - 2161
652 - 2177	661 - 2224	670 - 2172
653 - 2200	662 - 2225	671 - 2210
654 - 2205	663 - 2226	672 - 2217
655 - 2208	664 - 2229	673 - 2220
656 - 2209	665 - 2230	674 - 2227
657 - 2213	666 - 2231	675 - 2233
658 - 2215	667 - 2133	

● ● ●

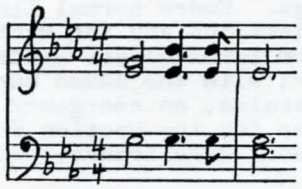
CONFEDERATION TRAIN

* The Confederation Train's consist has been assembled at Ottawa, preparatory to its January 3rd departure for Victoria, B.C., and the start of its transcontinental exhibition tour. The train is comprised of the following equipment;

CPR 4224 - Baggage
CNR 15463 - Steam Generator Unit
15466 " " "
CPR Oak Grove - Sleeper
CNR 1303 - Dining car
CPR Ash Grove - Sleeper
Fir Grove "
CPR 4731 - Generator Car
ex-CPR 2298 - Display Car
2285 " "
2266 " "
2258 " "
2240 " "
2236 " "

* Upon its arrival at Ottawa, the lead unit of the Confederation train, CPR 1411, will be fitted with a special horn, custom-designed by Bob Swanson of Vancouver (September NL, page 134). Consisting of five horns clustered together, the device will play the first four notes of 'O Canada', fitting in exactly with the regulation rule 14L crossing whistle.

For the musicians in attendance, here is Bob's description of the theory involved;



"I took an E flat, G natural and B flat which gives you a major chord. Then I put G an octave down the scale and similarly with E flat. Now you have five notes. G and its base octave and E flat gives you the 'O' in O Canada. The notes for 'Cana..' in Canada are produced by placing E flat, G natural and B flat together twice. The last note for 'da' in Canada combines E flat, G natural and the E flat octave base. That gives you the deep finish..."

CANADIAN PACIFIC

* Reliable sources indicate that CP has ordered a ten-car push-pull commuter train set from Hawker Siddeley, for use in the Montreal Lakeshore commuter service.

* SD-40's were delivered to CP as follows during November;

5521 - November 25th
5522 - " "
5523 - " "
5524 - November 30th
5525 - " "

Unit 5523 operated for some time in a Toronto-Windsor cycle undergoing wheel tests, before departing for western Canada on train 901, December 15th.

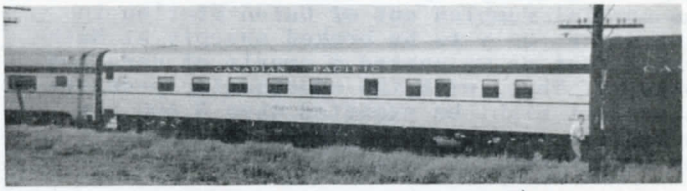
* A total of 48 locomotives have been reassigned from Alyth (Calgary) to Winnipeg, as a result of the arrival in Calgary of large numbers of SD-40's;

Transferred November 1st; 4029-4031, 4034-4040, 4441-4443.
Transferred November 15th; 8483-8495.
Transferred December 1st; 8495-8506.
Transferred December 15th; 8530-8535, 8614-8619.

* CP A-unit 1411 was transferred to CN's Pt. St. Charles Shops on December 1st, for painting in the Confederation train colours.

* CP has leased an additional 6 units from the DM&IR. In addition to nos. 124, 137 and 150, CP is now operating Mesabi Road 143, 147, 152, 156, 170 and 173 on runs out of Winnipeg.

* CP passenger equipment now being overhauled at Angus Shops for next year's Expo Limited is receiving a new silver and tuscan red paint scheme, designed to harmonize with the stainless steel cars currently assigned to that line's main trains.



/Bruce Chapman

GO TRANSIT

* Numbers have been assigned to Government of Ontario Transit equipment, as follows;

Self-propelled (SP) cars;	D-700 - D-708
Cab Coaches;	C-750 - C-757
Coaches;	4700-4731

Formula For Fun

In the January, 1966 NEWSLETTER, John Freyseng documented the UCRS diesel trip of October 23rd, 1965 to Orangeville, featuring Canadian Pacific E-8 1802. His report on the second excursion of that weekend, via Canadian National, is presented here.

At 9.00 a.m. on Sunday, October 24th, 1965, a gathering of the faithful clustered around the head end of a five-car train in Toronto Union Station, awaiting the motive power ingredients for the second half of the UCRS Formula for Fun -- the Branchline Weekend.

After a delay of several minutes -- during which the pessimists cast aspersions on the reliability of diesel locomotion -- our two diesel units came bounding through the John Street interlocker and kissed the waiting coupler of baggage car 9166. The trailing unit, Canadian National 6773 was common enough and rated little more than a passing glance as we moved forward to inspect the comparatively rare machine on the head end, CN 6703.

Built by the Canadian Locomotive Company generally to designs of Fairbanks-Morse, CN 6703 and her four sisters are the only units of their type -- anywhere! To reduce the axle loadings occasioned by the steam generator and water supply, these locomotives (model CPA-16-5) have a B-A1A wheel arrangement. This model never sold in the States, although locomotives of generally similar appearance and a more conventional B-B wheel arrangement saw in their heyday wide use in both Canada and the United States.

With a generous cloud of white fog rolling out of 6703 and a more discreet black pall emanating from 6773 (the different colour of exhaust fumes is a handy way to tell a CLC from an MLW), the special rumbled out of Union Station in fine style, only to be braked sharply at Bathurst Street as we passed a couple of derailed boxcars. Then, with the spectacular acceleration that might be expected when 3,400 h.p. is applied to a five-car train, we took off for Georgetown.

It was at Georgetown that the true character of the 'Branchline Rambler' emerged. To begin with, it took at least twenty minutes just to leave town on the Beeton Subdivision. Secondly, it was the first passenger train over the line since the demise of the gas-electric in 1960. Finally, travelling the ensuing 58.6 miles to Barrie (formerly Allandale station) was to consume four hours 50 minutes -- hardly a speed record.

The Hamilton and Allandale (the more popular name for the Beeton Sub) was at one time quite busy. Small Ten-wheelers and Consolidations trundled over the lightly-ballasted rails, giving way only to that fondly-remembered cantankerous mechanical monstrosity, railcar D-1, which chugged back and forth on a daily round trip. But D-1 finally bowed out -- or to be more honest, was towed out -- and the way-freights with their clanking Consolidations gradually disappeared. Occasionally a 1200 h.p. GM road switcher would push aside the ever encroaching weeds and venture forth with a lone car of feed for Beeton or Cheltenham, but even this activity has all but ceased. The resurrection of the southern portion of the line from Georgetown to Burlington in connection with CN's new Toronto Yard and its accompanying access lines may well have spelled the end for the rustic branch north of Georgetown. It was partly by way of a pilgrimage, then, that the two A-units were creeping along with their five-car train, through the weeds and past the once-proud stations at Cheltenham, Allimil and Inglewood.

By the time passenger extra 6703 arrived at Inglewood, there had already been one runpast over the CN-CP diamond that weekend, that of the previous day featuring CP 1802. Today, we were to get the CNR slant on the area, and as a result the train crossed the diamond five times for reasons completely unknown, shattering some kind of record as well as the tranquility of Inglewood. It is doubtful if the town will ever see that weekend's concentration of rail activity again!

Fierce weeds were encountered north of Inglewood, but our 3,400 h.p. emerged triumphant. The vestibule riders experienced the odd sensation of having the swish of weeds beneath the cars drown out the burble of the motive power on the head end. And so the day continued, the special careening along at 20 m.p.h., stopping for pictures whenever a choice location presented itself. In all, there were ten runpasts, excluding the repeats at places such as Inglewood. At Palgrave, CPR road switcher 8559 overtook us with a northbound freight on the Mactier Subdivision, while at mile 77 the train was again overtaken, this time by a speeding northbound rabbit.

Eventually Kempenfeldt Bay appeared, under a leaden sky, heralding the approach of our destination. With a tug of brakes, the special swung through the long curve leading into Allandale Yard, rattled past the empty roundhouse and eased to a stop just before the station. There being no turning facility at Barrie, the engines and baggage car were run around the train with the result that we now became passenger extra 6773 south. Now we knew the real reason for the abundance of motive power.

After a ninety-minute refreshment stop, our special set out for Toronto, rolling down the Newmarket Subdivision as fast as the timecard allowed. What a contrast in speed! The image of our 'Branchline Rambler' was left somewhere behind on the Beeton Sub. And so the first of our diesel weekends concluded with 100% of the participants agreeing that the combination of diesel railroading, leisurely schedule, seldom-seen trackage and atmosphere which is -- to say the least -- informal, added up to an enjoyment combination which would be hard to beat.

If the foregoing whetted your appetite for an unusual railway experience, mark January 14th on your calendar. This date launches the Society's Centennial Year slate of railway activities with another unique diesel excursion -- this time departing from Hamilton, and operating over lines of the Toronto Hamilton and Buffalo and the New York Central to Waterford and Welland. The special departs from TH&B's Hunter St. Station in Hamilton at 11.00 a.m. and returns there at 6.00 p.m. Toronto passengers may make convenient connections on CN trains 157 and 156, which operate to CN's James Street Station in Hamilton. Tickets at one price only -- $7.00 -- are available now from;

UCRS Trip Committee,
4493 Cottonwood Drive,
Burlington, Ontario.

Enjoyable though they were, our earlier diesel excursions were inadequately attended, and consequently failed to meet expenses. In fact, the future of these outings may well be dependent upon the outcome of the TH&B-NYC trip. Why not plan now to participate? -- You'll be glad you did!

expo67 EXPRESS

Visitors to Expo 67 in Montreal next year will be afforded the opportunity of riding on North America's first fully-automated rapid transit system -- free! Especially constructed for the big exposition, Expo Express will provide free transport for 30,000 Expo Passport holders hourly, from Rendez-Vous '67 on the Montreal shore across the St. Lawrence to three ultra-modern stations within the fair site on St. Helen's Island and Notre-Dame Island.

Hawker Siddeley Canada Limited provided the rolling stock for Expo Express -- 48 aluminum rapid transit cars similar in many respects to the H-1 class subway cars of the TTC. The end cars of each six-car set have cab controls and embody an unconventional streamlined front end; the intermediate cars are motorized trailers. Each car is 75 feet long, ten feet wide and weighs approximately 57,000 pounds. Four 120 h.p. Belgian-built traction motors per car, mounted in Dofasco trucks, enable the cars to attain a top speed of 50 m.p.h., at a normal acceleration rate of 2.5 m.p.h.p.s. Uniswitch Corporation supplied the automatic train control system, by which the entire operation of Expo Express can be controlled from a single location.

Car interiors are finished in subdued and relaxing colour schemes in Melamine panelling, and utilize indirect fluorescent lighting. Decor has been kept on a low key to emphasize the large picture windows which will afford the visitor an excellent view of Expo. The cars are fully air conditioned -- the first use of this equipment by a Canadian rapid transit system.

The rapid transit line itself is 3.7 miles in length, and many precautions have been taken to make it as noiseless as possible. Continuous welded rail, rubber anti-vibration pads between ties and bridge decks, acoustic fences along the right of way and in stations, plus the use of anti-noise material in the construction of the car wheel sets all contribute to making Expo Express an unusually quiet operation.

Maintenance of the trains is performed in a three-track depot located close to La Ronde Station on St. Helen's Island. Delivery of the first six car train took place on June 29th at a ceremony in Windsor Station, Montreal, where the train was hauled -- on its own wheels -- from Hawker Siddeley's Fort William plant. A six car set was on public display in Toronto for four days early in September. Delivery of all of the cars has been completed, and test operation began in August. Training of the attendants who will oversee the automatic operation of the trains will begin during the winter.

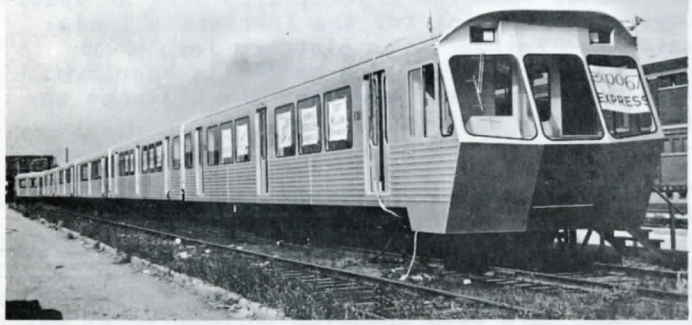
/R.D. McMann

(And what will become of the Expo Express cars once Expo's short life is over? The city of Edmonton suggested a few years back that they would form an admirable nucleus for a proposed rapid transit project in the Alberta capital; it has been suggested that proponents of rapid transit conversion of CN's Mount Royal Tunnel line in Montreal are not forgetting the suitability of the Expo cars for their purposes; or consider the similarity of these cars to existing TTC equipment, remembering that the Bloor Subway extensions will be ready for service next year. Time will tell...

/JAB)

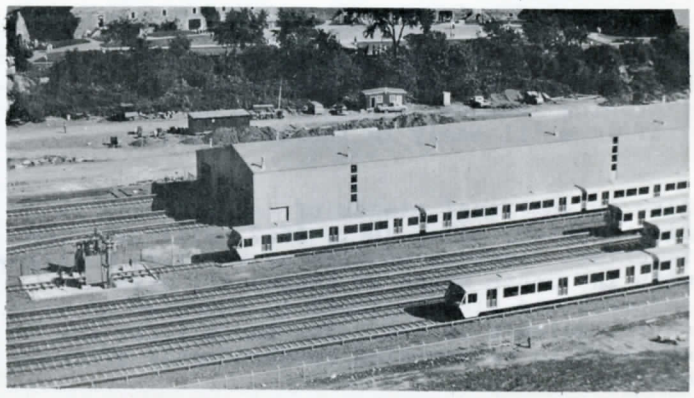
BELOW: Designed for more leisurely loading than their TTC counterparts, Expo Express cars have just three doors per side.

/Bob McMann



BELOW: Expo trains will be maintained in this three-track building at the St. Helens Island site of the world exposition.

/Ian MacDonald



Here comes

On October 14th, 1966, Canada's largest city, Montreal, became the seventh city on the continent -- and the second in Canada -- to boast a rapid transit system, for on that date the revolutionary, rubber-tired Metro system swung into operation.. Officiating at the opening ceremonies were a justifiably proud Mayor Jean Drapeau and the French minister of state, Louis Joxe, who attended in acknowledgement of the French technical assistance which contributed to the design of the system, particularly with respect to the rolling stock.

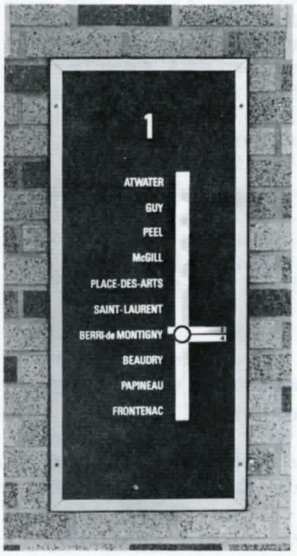
The idea of a subway in Montreal had been talked about since 1910, and received polite consideration but little else until the early 1950's when an area transportation plan was released recommending a two-line subway. As before, no one was prepared to push the plan. Meanwhile, Montreal's traffic problems were becoming more acute, and in 1960 Jean Drapeau, a mayoralty candidate, built his campaign about the promise to give the city the subway it so desperately needed. Within a year of Mr. Drapeau's election, plans were far enough advanced for the city council to authorize expenditures for construction of the tunnels and stations and purchase of rolling stock. The municipal department of public works was given the responsibility of building the new system, and construction began in 1962. The entire project was financed through general revenue bonds backed by the city's credit.

Two routes comprise the present Metro system, with a third to begin operation next April. Line 1 is a downtown distributor route, running just north of St. Catherine Street, through the heart of the retail shopping district; ten stations are distributed along its 4.3-mile length. Just twice as long is Line 2, paralleling St. Denis Street for most of its length, and linking residential and commercial districts on the city's north side with the downtown area, where it intersects Line 1. Line 2 has 15 stations, four of which lie in the central business and financial district; it terminates at Place Bonaventure, a short distance from Central and Windsor Stations.

Frontenac Station on Line 1, and Victoria and Bonaventure Stations on Line 2 are receiving finishing touches, and will not be handling traffic until early in the new year.

Also in the final stages of construction is Line 4 which, after April 1967, will link the important downtown station at Berri-de Montigny with the South Shore at Longueuil, with an intermediate stop adjacent to the Expo 67 site on St. Helen's Island. The three lines are designed to be operated independently of one another.

The status of Line 3, rapid transit operation of Canadian National's Mount Royal Tunnel line, is still clouded. Ultimately it is hoped that this trackage will be turned over to the city and integrated in the Montreal Transportation Commission network.



Photos/
Ian MacDonald

Maps/
CANADIAN RAIL

Data/
Tom Henry &
James A. Brown

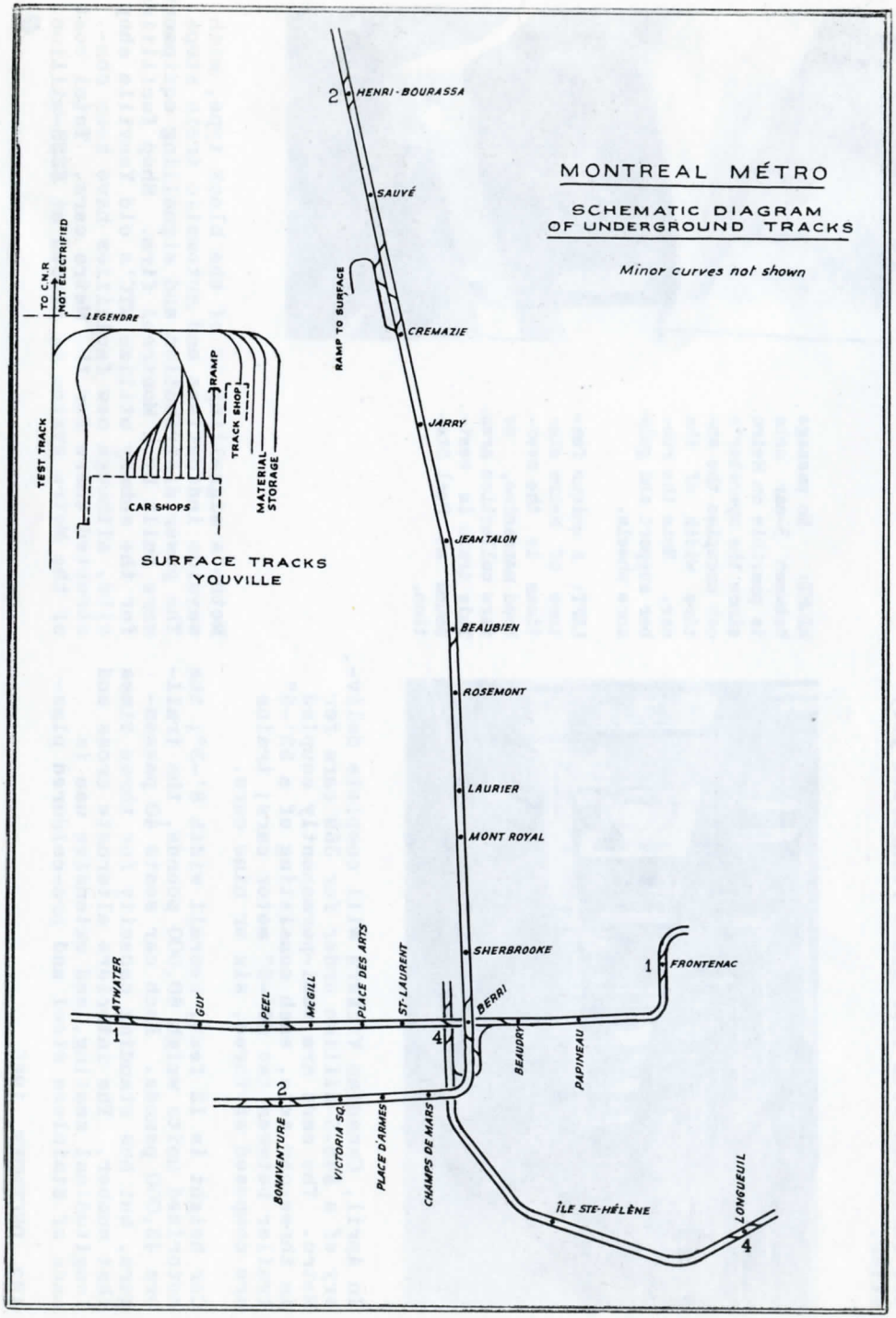
It is most unlikely that the adjectives 'stark' and 'sterile', often applied to Toronto's utilitarian, uniform-design stations, will ever be used in connection with Metro. The stations are all of individualistic, artistic design, and each has its distinctive decor executed in concrete, brick or glazed tile. A distinctive feature of Metro stations is the mezzanine level where riders pay their fares and select their direction of travel; these mezzanines span the tracks, affording an excellent vantage point for the inveterate train-watcher. Entrances to platform levels are controlled by Paris-type automatic barriers. Escalators are used wherever the distance between levels exceeds 12 feet.

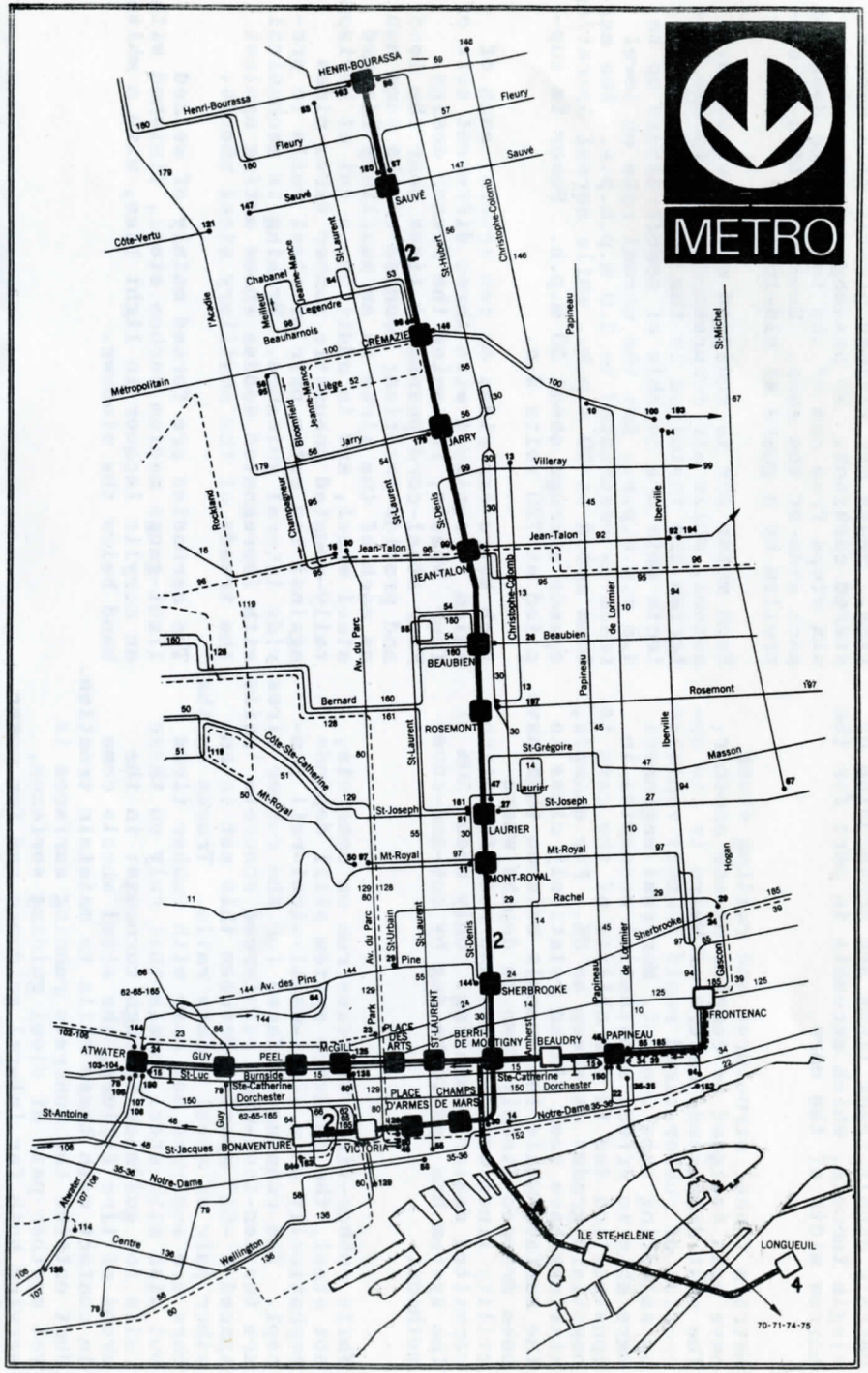
Tickets -- not tokens -- are the keys to Metro. Magnetically encoded, they are accepted by automatic turnstiles in the same manner as Toronto's tokens. Transfers are issued for travel between the subway and surface bus routes, many of which have been modified to complement Metro.

MONTREAL MÉTRO

SCHEMATIC DIAGRAM OF UNDERGROUND TRACKS

Minor curves not shown





Metro's double-track lines are accomodated by single tunnels, which accounts in part for the narrow width of the cars.

Metro's tunnel structures and rolling stock have been designed to complement one another. The most discussed feature of Metro is its operation of rubber-tired rapid transit vehicles. By selecting this concept, Montreal engineers were able to effect substantial economies in construction due to the ability of the cars to negotiate grades as steep as 6%. For example, stations have been placed relatively close to the surface while the tunnels between them have been dropped steeply down to depths where utility lines were avoided and rock formations permitted easier tunneling. Only about 30% of the system has had to be dug by cut-and-cover methods.

While rubber-tired vehicles run on concrete, not steel, the guidance system still depends emphatically on a steel-wheel-steel-rail concept. The running surfaces for the rubber tires are two ten-inch-wide reinforced concrete 'rails' spaced 6'-6½" apart. Between this set is another pair of steel safety rails. Trucks on the cars are equipped not only with rubber tires but also with steel wheels that rely on these rails for guidance through turnouts; in the event of tire failure, the steel wheels come in contact with these rails to maintain traction. Just outside the concrete running surfaces is yet another pair of steel guiding surfaces, serving both for lateral guidance and for power supply to the cars. Both sets of steel rails are insulated with fibreglass-reinforced polyester.

In April, Canadian Vickers will complete delivery of a $45.5-million order for 369 cars for Metro. The cars are semi-permanently coupled in three-car sets, each consisting of a 55'-5" trailer between two 56'-5" motor cars; trains are composed of three, six or nine cars.

Car height is 12 feet, overall width 8'-3"; the motorized units weigh 60,000 pounds, the trailers 45,000 pounds. Each car seats 40 passengers, but has standing capacity for three times that number. The interiors alternate cross and longitudinal seating, and extensive use is made of stainless steel and pre-coloured plastics. Seats are moulded plastic with upholstered cushions. No passenger is more than six steps from one of the four double doors on each side of the cars. Door operation is controlled by a guard at mid-train.

Each motor car is equipped with four 155 h.p. motors, while air compressors and storage batteries are installed in the trailers. The train sets are capable of accelerations up to 4.8 m.p.h.p.s., but the normal rate on level track is restricted to 3.0 m.p.h.p.s. The maximum speed is 50 m.p.h., while normal operating speeds average about 30 m.p.h. Power is supplied at 720 volts d.c.

Each Metro car rides on two trucks, each of which is equipped with three different sets of four wheels, following the French design. Four steel-cord pneumatic tires bear the load and provide traction; mounted on the same hub as each of the tires is an auxiliary flanged steel wheel, and in addition, a set of horizontally-mounted pneumatic rubber tires rides against the outer pair of steel rails to provide lateral guidance. Braking is mechanical, with impregnated wooden shoes acting against the treads of the auxiliary steel wheels.

The carbodies are formed mainly of welded light-gauge medium carbon steel, finished with an acrylic lacquer in light blue, with a white band below the windows.

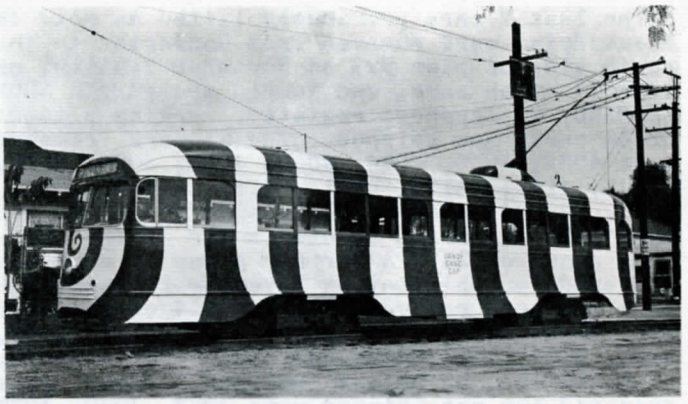
RIGHT: No passage between 3-car sets is possible on Metro since the operator's cab occupies the entire width of the car. Note the rubber support and guidance wheels.

LEFT: A unique feature of Metro stations is the overhead mezzanine, or fare collection area. This train is westbound at Peel Station.

Metro's signalling is of the block type, with wayside indications and automatic train stops. The power distribution and signalling equipment were built by a Montreal firm. Shop facilities for the subway utilize MTC's old Youville shop site, although new facilities have been constructed there for the Metro cars. Total cost of the Metro system is placed at $228-million.

We're looking for information, anecdotes, diagrams, photos and what-have-you to round out fully our series of Locomotive Data Sheets that is currently appearing in the NEWSLETTER. If you are able to contribute, your assistance would be appreciated. Following is our tentative publication schedule:

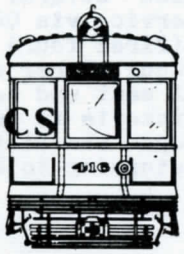
Locomotive Class	Mat'l Req'd by;
CP T-1-a; 5900-5919	Jan 15/67
TH&B A; 200-201	Feb 15/67
CN-GTW U-4; 6400-6410	Mar 15/67
CP F-2-a; 3000-3004	Apr 15/67
T&NO; 1100-1103	May 15/67
CN X-10-a; 46-50	June 15/67
CP G-3; 2300-2350	July 15/67
CN U-2; 6100-6159	Aug 15/67
CP U-3-d; 6210-6304	Sept 15/67
CN S-1-f; 3405-3504	Oct 15/67
CN U-1; 6000-6036	Nov 15/67



ABOVE: Many years ago, Los Angeles Transit presented its riders with a giant candy cane in the form of car 3022, seen here at Rowan Loop on the 'P' line.
/J.F. Bromley Collection

Traction Topics

Edited by John F. Bromley



* The long arm of the scrapper reached into Hillcrest Shops recently and as a result Plow W-9 and Sweeper S-38 are no longer around. Not satisfied with merely these two veterans of many Toronto winters, the grim reaper has also claimed Crane C-1, whose last major job was the reconstruction of the Bay-Wellington intersection recently.

W-9 was originally a construction car, built by the TTC in 1922, and was one of the longest pieces of surface equipment at 53'10". S-38 was purchased from the Third Avenue Railways (New York) in 1948, where it was their number 81. Previously, S-38 operated in Trenton, N.J. and was built by Russell in 1921. C-1 was the eldest of the group, built in 1913 by the Toronto Railway Company with a five-ton Brown hoist. Among its many and varied duties was the demolition of the walls of King Barn after the second disastrous fire. /JFB, RM, SM

* According to the TTC Annual Report, the TTC operated, as of December 31st, 1965, 184.68 surface track miles, 18.25 subway track miles, 72.57 surface street car route miles, 6.67 subway route miles, 26.28 trolley bus route miles and 376.48 bus route miles. Equipment consisted of 738 PCC cars, 29 rail surface maintenance vehicles, 334 subway cars (on hand for use), 6 subway maintenance vehicles, 153 trolley buses, 812 buses and 139 automotive service vehicles for a total of 2211. /JFB

SHORT TRACKS

PCCs 4551-4553 are no longer equipped with automatic transfer machines for use on the ROGERS line.....afternoon rush hour service on December 23rd and 30th will begin at Noon and continue until 7:00 pm, with slightly reduced service from normal. KINGSTON ROAD TRIPPER will use 18 cars, evenly split between divisions on a 6-minute headway, with no service on Wellington.....PCCs 4500 and 4502 were at Roncesvalles between November 21st and December 2nd, being replaced at St. Clair by 4364 and 4388. PCC 4501 was at Roncesvalles November 10th-13th in exchange for 4574.....G1 class subway cars 5044-5045 are equipped with black walnut and Moroccan brown carpeting respectively, in a 6-month test for durability paid for by the Bay Area Rapid Transit District.....unusual assignments during November included 4238 & 4596 on DUNDAS (with blank signs) on November 10th, 4231 on LONG BRANCH December 1st, and various class A12 PCCs on DANFORTH. This latter is now becoming extremely common in rush hours..... KING trippers between Church and Dundas West are appearing again, entering service via east on Queen and south on Church.....4307 is the car that rear-ended 4201 (see pg 169, November NL).....PA systems are now installed in the G class subway cars.....passenger counts in connection with the proposed MU service were carried out in November on all lines servicing Queen and King Streets.....Avon Loop track has been removed in preparation for conversion to trolley coach service, and Northland (T.C.) loop is removed. Specialwork at the entrance to Keele Loop is removed, as are all diamonds at Carlton and Church.....preliminary plans for the Queen street car tunnel are nearing completion.....a newspaper survey of Metro politicians regarding priorities for new Rapid Transit lines revealed the not-surprising news that each suburb thought a line serving THEIR district was most important. Small wonder that Metro Council rarely accomplishes anything in discussions on the subject, when local rather than area-wide views are presented.....want to buy a good used street car? Send 80,000 yen ($224) to Tokyo Transport Bureau. Shipping costs SLIGHTLY extra..... /JFB, RM, SM, DS

* The last 7 cars previously listed as sold to Alexandria were removed from Danforth to the south side of pier #24 on November 7th-8th, as were 14 other cars, and loaded aboard the SHUN EI MARU, of Japanese registry, making a total of 36 cars now shipped. The 21 cars removed were 4034, 4036, 4056, 4069, 4082, 4087, 4116, 4162*, 4172, 4174, 4181, 4183, 4196*, 4240, 4256, 4264*, 4265*, 4273, 4283*, 4288* and 4298*. The asterisk denotes a car of the original group of 21. A further group of cars was prepared for shipment on November 28th-29th, but only ten were removed to Pier #24 on December 4th, these being 4002, 4026, 4049, 4071, 4094, 4103, 4134, 4164, 4209 and 4244, for loading on board the SS Orient Mariner. Other cars prepared but not shipped were 4023, 4029, 4037 4059, 4086, 4093, 4096, 4097, 4104, 4119, 4121 4131, 4208, 4214, 4217 and 4248. Another two cars were to have been prepared, but as this is written the work was not done. Rotation car 4587, in storage at Danforth, acted as yard shunter for the removal of the last ten cars while 4599 shunted the group of twenty-one. A total of 46 cars have now been shipped.

Alexandria 901 (ex-TTC 4114), a photo of which appeared in the November NL, is painted royal blue and cream with silver trim.

Interesting is the fact that Toronto PCC cars were not the first to gain the attention of Alexandria. In 1955, together with Vienna and Mexico City, they expressed interest in 186 Detroit PCC cars up for sale, which eventually were sold to Mexico City. /JFB, RM

* All air-electric PCCs were in service as of December 6th, except for 4200, 4238, 4246, 4291 and 4599, stored and sealed at Danforth; 4587, 4588, 4592, 4593 and 4600, also at Danforth; 4211, 4239 and 4247 in dead storage at Hillcrest, and 4201 and 4261 undergoing repair at the shops. Training Car 4000 was stripped of its additional training equipment October 26th, and 4700 became the new Hillcrest Training Car the following day. 4000s last service was for the UCRS Oct. 15th. 4000 was placed in storage at Hillcrest, pending sale. PCC 4021, in storage at Hillcrest, recently received new vestibule steps and minor body work. /JFB, SM

* The annual Santa Claus Parade November 19th resulted in several street car diversions. As usual, QUEEN cars ran via Spadina, Adelaide & Victoria e/b, Victoria, Richmond & York w/b; CARLTON cars short-turned at Bay and Church, with a few cars to Parliament and King; DUNDAS cars used several diversions. Six extras ran into service via Queen, Church, Richmond, Victoria (first four) or York (last two), Queen and McCaul. Other cars were wyed at McCaul and several east end cars looped via Church, Queen and Victoria to Dundas. At least one DUNDAS car looped via Victoria, Adelaide & Church before returning to Broadview Station. /JFB, RM

REMEMBER . . . . DECEMBER

Dec 2, 1861 - First day of service, QUEEN horse cars, Yonge to Dundas (now Ossington Avenue).

Dec 28, 1916 - Second disastrous fire wiped out King Street Barn.

Dec 15, 1918 - Prince Edward Viaduct opened, complete with subway deck.

Dec 14, 1921 - Peter Witt Motors first used on the YONGE route.

Dec 15, 1921 - KINGSTON ROAD line inaugurated, single track & turnouts.

Dec 15, 1922 - Eglinton Division opened, replacing antiquated Yorkville.

Dec 1, 1938 - Full PCC service with Al cars began on BLOOR route.

Dec 31, 1940 - Last day, DAVENPORT car line, ending Birney operation.

Dec 8, 1947 - Last day, DOVERCOURT service.

RIGHT: Last-minute Christmas shoppers throng aboard TTC Witt 2532, on Yonge Street just north of Queen, while the two-door trailer is ignored. The date: Christmas Eve, 1924. /TTC