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P. C. C. Story

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UPPER CANADA RAILWAY SOCIETY
BOX 122 TERMINAL "A" TORONTO, ONTARIO

25 Years Ago!



NEW CARS!

*Fast,
Quiet,
Smooth-*

for
T.T.C. PASSENGERS

In Toronto, as in every large city in the World, public transportation services are and will continue to be indispensable to the welfare and progress of the entire community and of every person in the community.

After more than thirty years of extensive experience with the private automobile, there is no indication that any private vehicle will ever satisfactorily replace public transit services. In safety, convenience, dependability, efficient use of street space, and in the vital factor of cost, the private vehicle is outclassed by public transit services.

However, the competition for public patronage will continue to be an incentive for both the private vehicle and the public transit system to offer constantly improved service. Two qualities, speed and riding comfort, will count heavily in this competition.

Toronto is already familiar with what has been done to achieve new standards of speed and luxurious comfort in one transit vehicle, the bus, the latest models of which are in service on all T.T.C. routes.

On the following pages there are described some of the main features of a really marvellous new street car, developed to achieve the new high standard in the essential rail services.

With the addition of one hundred and forty of these new cars, soon to be in service, the T.T.C. will have completed a programme of rolling stock modernization which will hold for the Toronto transit system a leading place among the best in the World.

TORONTO TRANSPORTATION COMMISSION

TORONTO, CANADA

During September the period of operation of PCC streetcars in Toronto passed the quarter-century mark. It is therefore fitting that a brief review be presented at this time of the use of this type of car on the T.T.C. system from 1938 to the present, together with a review of the many different classes of cars now on the roster.

The Toronto Transportation Commission was one of the active participants in the Presidents' Conference Committee, under Dr. Charles Hirshfield, as organised in 1929 to design a radically new and improved form of urban surface electric railway car. At about this time the T.T.C. had been giving very serious consideration, to the point of preparing specifications, to the purchase of a large group of improved Peter Witt cars to be equipped for multiple-unit operation on the heaviest routes of the system. While the onset of the depression halted the placing of an order for such cars it is probable that the promise of forthcoming availability of an entirely new type of car having substantially improved performance and rider appeal played some part in abandonment of the Witt plans as well. In any event, a 15-year period was to elapse from the time of receipt of the last Peter Witt equipment by the Commission (groups 2900-3018 and 2701-3029) in 1923 until the placing of an order with Canadian Car and Foundry for 140 cars of the PCC type on March 8th, 1938. While certain other systems such as Boston, Cincinnati and Pittsburgh toyed cautiously with single cars purchased essentially as demonstrators, the mass T.T.C. initial order offered proof that the Commission indeed had followed closely the development and early operation of PCC cars (from 1935) in other cities, and that it had every confidence in the new type of car by this time.



Class A1, car no. 4002.

4000-4139 - Group A1: This initial order for 140 cars was the largest first order for PCC's ever placed by any transit system. As in the case of all of the cars built new for Toronto, the order was placed with Canadian Car and Foundry Ltd. of Montreal, although the actual role of this company in their manufacture was a subsidiary one, the car bodies being fabricated by St. Louis Car Co., and the trucks by the Clark Equipment Co., both builders being located in the United States. The unfinished shells of the cars were shipped to C.C. & F.'s Turcot plant in Montreal where they were painted and had seats and other fittings applied prior to shipment to Toronto.

The A1 group was fabricated during the summer and fall of 1938, the second and third units (cars 4001 and 4002) being finished up in August to enable their display at the Canadian National Exhibition, where the Toronto public got its first look at the type of transit vehicle which was to play such a great roll in its city in the future. Toronto had missed the lightweight car era and the various modernised car designs of vintage 1930 which were present in a good many other cities, so that the contrast which the two new cars offered with existing equipment was striking indeed. Although the similarity is a little difficult to see today, the average visitor to the car displays could not help remarking how the PCC's resembled buses!

While 4001 and 4002 were thus examined in minute detail by a pleased public the first car, 4000, was retained for some time in Montreal to serve as a prototype for the finishing of the other 137 cars in the order. Visible external differences in the cars as delivered from their condition to-day included the painting of the trucks black with white wheel tires and centres, painting of the body rub-rail black, and the absence of the front and rear skirting bumpers.

Publicity attending the new cars indicated their intended use on the BLOOR, DUNDAS and ST. CLAIR routes; the last-named became the scene of earliest operations of PCC cars in Toronto. As the 1938 Exhibition ended, two cars were placed in service on extra runs on ST. CLAIR, essentially for purposes of operator training -- by September 13th, two cars were assigned to regular runs. On September 23rd, all was ready for the formal inception of PCC car service on its first Toronto route, and at 7:30 p.m. on that date initiating ceremonies took place at St. Clair and Wychwood, following which six cars were pressed into service for the remainder of the evening, and offered free rides to the public until 10 p.m. The following day the route was fully PCC-operated.

As more cars were received, training runs were instituted on BLOOR and DUNDAS and the cars began substituting for Peter Witt trailer runs. However, full service with PCC cars was delayed on both routes until December 1st, 1938, as a result of threatened strike action by operators who were concerned with the loss of jobs occasioned by substitution of one-man PCC cars for two-man Peter Witt equipment.

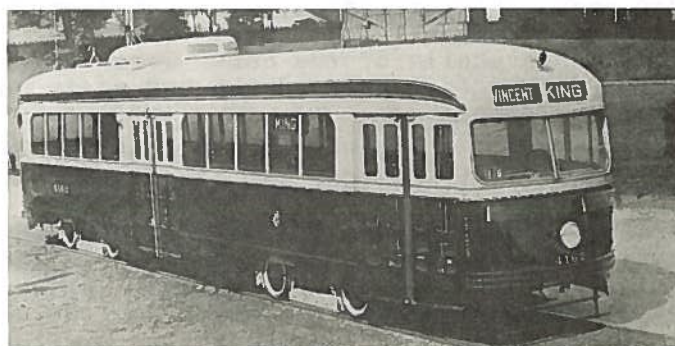
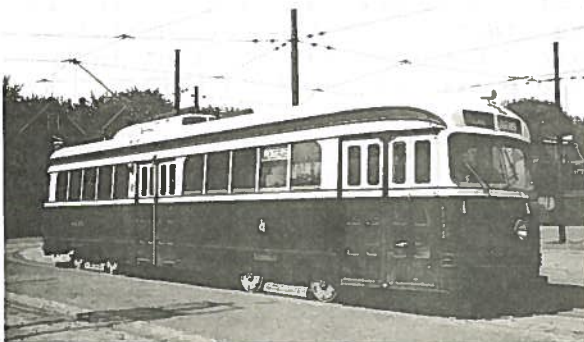
On January 8th, 1939, PCC's were placed on the CARLTON and KING routes on Sundays. By the middle of the year the Commission had decided that the 140 cars on hand would permit base operation of CARLTON with the new equipment and such was accordingly introduced during that month. Well pleased with the performance of the A1 group, the T.T.C. placed an order for a second group of fifty cars in February, 1940.

4150-4199 - Group A2: These cars, delivered in the fall of 1940, introduced the elongated trolley base and a cleaner skirting arrangement under the anticlimbers; among interior modifications the most noticeable was the straightened stanchions which allowed easier passage down the car than did the curving seat pedestal-mounted uprights in the A1 cars. These cars were placed in service on the KING route following their delivery in September and October of 1940. They also took over service on the QUEEN line at this time for Sunday, Holiday and night runs. On November 2nd, PCC's from St. Clair Division were placed on the YONGE night car service, a torturous assignment which in later years, as the trackwork deteriorated, showed that the PCC car does not necessarily compare favourably with older equipment under bad track conditions.

The arrival of the A2 group did not result in the conversion of additional lines to PCC operation until May 1, 1941, when almost all of the Peter Witt trains were withdrawn from QUEEN service, and the 4150 series cars took over on this important crosstown line.

Class A3, car no. 4235.

Class A2, car no. 4162.



4200-4259 - Group A3: The A2 group had just barely been broken in when the Commission placed its third PCC order on March 20th, 1941. The sixty cars in this series took the better part of a year to arrive, and were received and placed in service between January and April of 1942. By this time, wartime traffic was well on the increase (239 million passengers were carried by the T.T.C. as against 168 million in 1940), and the new cars were used purely to augment the fleet without any cars being retired with their arrival, although a few older cars were ordered sold to Ottawa and Fort William by the Transit Controller.

The A3 group did not suffer from the wartime shortages of certain materials which became evident in the following groups, and they represented a peak of PCC development in the Toronto fleet, at least insofar as the air-electric design was concerned. The cars were distinctive from their predecessors upon delivery by virtue of the Naco super-resilient wheels upon which they rolled, which, combined with an equally resilient body suspension, produced the smoothest ride ever generated by a transit vehicle in Toronto. This suspension was apparently found to be unsatisfactory (the car bodies rocked noticeably more on the A3's than the other groups) and was later removed; the "magic carpet" ride produced by these 60 cars in their earliest years has never been matched by any of the succeeding PCC groups. Also very pleasing on these cars as delivered and since removed were an extremely musical and resonant passengers' signal bell (buzzers were used on the A1's and the A2's) and a distinctive opalescent green paint on the interior.

Receipt of 4200-4259 permitted the inception of base PCC operation on the BATHURST route early in February of 1942. During February PCC's were also introduced to the HARBORD base service. A further part-time extension of PCC use with the arrival of the A3's was on the KINGSTON ROAD-COXWELL night service.

The A3 group was divided among St. Clair, Roncesvalles and Russell Divisions, while the older PCC's were at Lansdowne, Danforth and Roncesvalles with some A1's still at St. Clair.

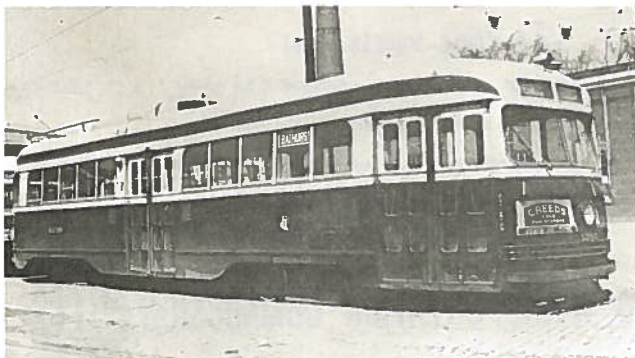
In October, PCC night service was made universal on the system with its extension to the DUPONT, DOVERCOURT, LANSDOWNE and LONG BRANCH services.

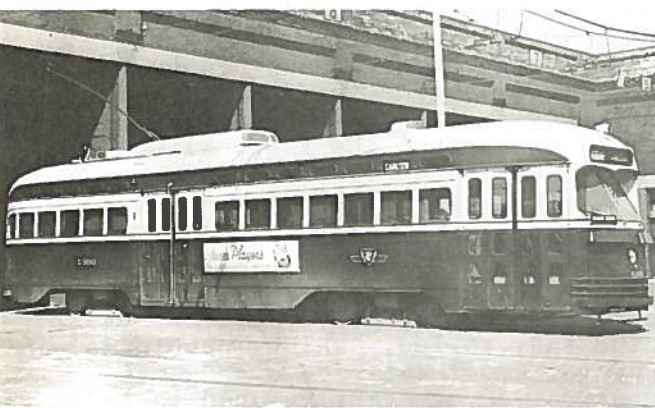
4260-4274 - Group A4: While the A3 group was being delivered in March of 1942, a fourth PCC car order was placed, this to include a total of 55 cars. Of these 55 only 40 ever found their way to Toronto rails owing to the restrictions placed on transit vehicle construction by the War Production Board in the United States, and the equipment juggling manoeuvres of the Canadian Transit Controller. The first 15 of these cars arrived in January and February of 1944, as the Controller diverted the remainder of 50 cars allotted to Canada for that year to Montreal (18 cars) and Vancouver (17 cars). The 15 cars of the A4 group were quickly swallowed up by St. Clair Division and put to good use augmenting the heavily taxed equipment roster.

These cars exhibited wartime shortages - seat cushions were horsehair in place of Dunlopillo, stanchions and seat frames were nickel plated instead of stainless steel, and certain other fittings were painted over instead of being fabricated of any type of "bright metal". Loss of certain frills was, however, of little moment at this time, when the prime consideration was to move traffic. The shortcomings of these cars were gradually eliminated following the war and to-day they are not noticeably different from the A3 group.

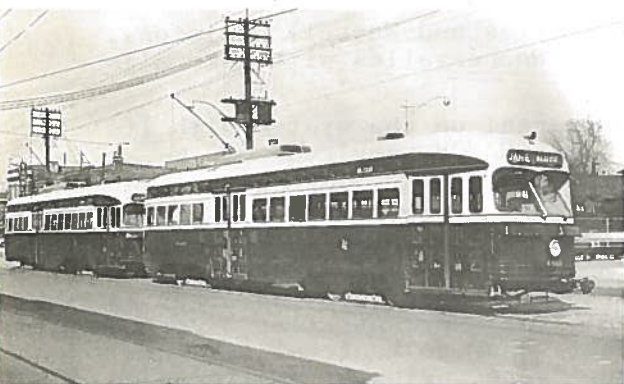
Class A4, car no. 4260.

Class A5, car no. 4275.

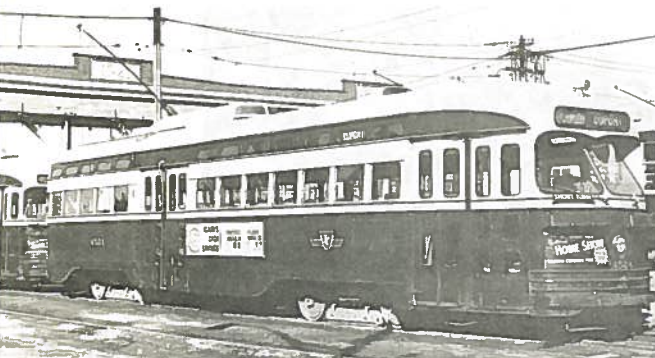




Class A6, car no. 4300.



Class A7, car no. 4440.



Class A8, car no. 4524.



Your New Car...



"4300" is here.

It is the first of ONE HUNDRED 1948 ALL-ELECTRIC Streamliners soon to be serving you. Then Toronto will have 389 of the most modern cars. Only four cities in the World have as many.

In the 1948 model many new features enhance the safety, comfort and efficiency of the Streamliners.

"ALL-ELECTRIC" means that these cars use no compressed air, for any purpose. Brakes, doors, windshield wipers and sanders are operated by electricity. This increases the reliability and efficiency of these devices in all weather variations.

Other outstanding features are: Wider doorways and aisles... A window directly beside each seat... Safe, inside arm rests... Exit doors farther back... Seats arranged for better movement of passengers through cars... Warm air enters at floor level on both sides... Additional ventilation... Improved illumination... Sloping anti-glare windshield and improved position for Operator... And note the new windows which permit standing passengers to see street names.



Goodbye, WOODEN CARS!

As the All-Electric 4300's are delivered, practically all of the wooden Toronto Railway Company cars will be retired. A few of these veterans may remain "on reserve". All of these were scheduled for retirement years ago, but they answered the call of War and served nobly.

TORONTO TRANSPORTATION COMMISSION



4275-4299 - Group A5: In early 1945, another 40 PCC cars were produced for Canada; of these, the British Columbia Electric Railway took 15, while the remaining 25 came to the T.T.C., again to augment the existing roster. These cars, virtually duplicates of 4260-4274, were also sent to St. Clair Division following their arrival during February and March.

These cars permitted something which had not been experienced in Toronto for three years - the conversion of a Witt-operated route to PCC base service; this was the DUPONT line, where the modern equipment assumed duties on April 1, 1945.

The T.T.C. now had 290 PCC cars, the total number of the air-electric type that it would purchase new. It is therefore of some interest to pause here and give a summary of car assignments (as of April, 1945) in the era prior to the arrival of the first all-electric cars:

Lansdowne Division -	4000-4067
Danforth Division -	4068-4139, 4150-4161
Roncesvalles Division -	4162-4199, 4200-4234
Russell Division -	4235-4259, 4261, 4262
St. Clair Division -	4260, 4263-4299

In contrast to to-day's situation, the heavy crosstown BLOOR and CARLTON lines were served by cars of the oldest group, while the chief stamping ground of the newer 4200's was the QUEEN route.

4300-4399 - Group A6: With the cessation of World War II in August, 1945, it was anticipated that the immediate post-war era would bring about many changes in Toronto's transit system. Foremost among these was the expected early placing of substantial orders for PCC cars to replace the aged Toronto Railway Co. wood cars which had really lived only on "borrowed time" through the war.

Orders were indeed placed for much bus and trolley coach equipment almost immediately, but the expected quick PCC order did not materialize. Concern among local transit enthusiasts grew apace through late 1945 and the early months of 1946 as a large number of PCC orders were placed in the United States but nothing of new rail rolling stock (apart from two new snow ploughs) was mooted locally.

Those who felt this concern breathed much more easily in May of 1946 when it was announced that an order for 100 new cars had finally been placed on the 2nd of that month. However, the backlog of PCC orders with St. Louis Car Co. resulted in a wait of almost two years to see the new all-electric cars in service. 1947 was the year of the trolley coach, and carline modernisation marked time while the trackless vehicles lopped off some mileage that would never see regular PCC operation.

On December 22nd, 1947, car 4300 arrived at Hillcrest Shops as a pilot model, well ahead of the remainder of the series, and after some preliminary testing, entered regular service on the BLOOR route on January 9th, 1948. The other 99 cars arrived between February and June of that year.

The 4300's are of the standard post-war all-electric design with standee windows, drum brakes and other innovations resulting from the sincere effort of the Transit Research Corporation to update the PCC car in order to compete in the modernisation rush which was expected to follow the return of a peacetime economy in the country. (Toronto is one of only a small handful of cities on the North American continent where this effort had any lasting benefit.)

Cars 4398 and 4399 were fitted with experimental ventilating fans and a monitor roof upon delivery, and 4399 had an installation of fluorescent lighting. This non-standard equipment was later removed.

The 4300's were assigned to Danforth and Lansdowne Divisions where most of them have remained since. They provided a modernisation program for the BLOOR and CARLTON lines, replacing the 10-year old A1 series which then found its way to Roncesvalles and Russell. However, the spectacular car purchases of the next few years were soon to dislodge the 4300's from BLOOR and ultimately rendered them one of the more or less "forgotten" series among the PCC groups.

Several minor routes were modernised with the addition of these 100 cars to the roster. On May 25, 1948, PCC's were placed on base runs on LONG BRANCH and on the short FORT run; on June 8, 1948, Danforth Division sent them out for base service on the CHURCH, PARLIAMENT and COXWELL routes.

4400-4499 - Group A7: The stage was now set for the climax in Toronto PCC history—the one hundred multiple-unit cars of the 4400 series. Growing transit and automobile traffic on the big-gun BLOOR line was of definite concern to the T.T.C. operating officials by 1948 and some means of clearing cars more quickly from signal-controlled intersections was felt to be an urgent requirement. It was decided accordingly to operate this line rush hours using 2-car MU trains, the general principle being that the second car can be safely conducted across an intersection during a change in signal from green to red as long as it is physically attached to a first car which started moving during the last few seconds of green on the signal cycle.

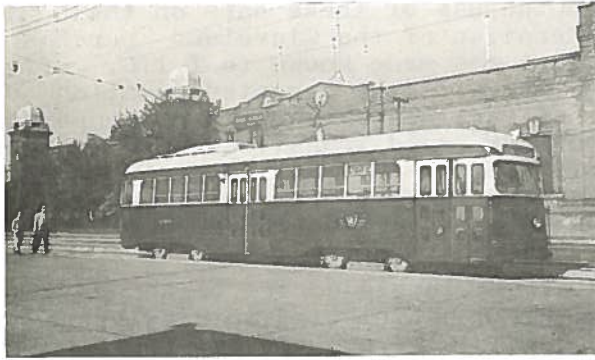
The order was placed during July of 1948 with Canadian Car and Foundry Co., which company finished them in its Fort William bus-building plant, the only group to have been handled there. Delivery of the cars commenced on July 25, 1949 and continued through to late November of that year. Cars 4400 and 4401 were displayed as a train at the Canadian National Exhibition, where many visitors wondered out loud "why the trailer had a trolley pole and headlight!" Aside from the MU equipment there was little structural difference as between the 4400's and the predecessor 4300's. One thing which immediately struck the public consciousness, however, was a striking new interior colour scheme of two-tone blue with salmon red seats. This colour scheme had been applied to car 4300 experimentally in November of 1948, and was later applied also to cars 4301, 4302, 4280 and 4294. The scheme has remained, but seat cushions of a deeper red hue have replaced the original salmon Koroseal, which faded badly after a few years of service.

Although cars 4408 and 4409 participated in a one day test MU operation on the BLOOR line, the inception of regular MU service was long delayed. The Commission proposed to pay the operator of the second cars at a lower rate in view of his reduced duties, but the union threatened strike action if this plan was put into effect. Finally settlement was reached (the operators won) enabling full rush hour multiple unit operation to be carried out for the first time on March 13, 1950, and later extended to weekday afternoons and Saturdays. This operation has continued successfully ever since, with the exception of the Saturday operation being discontinued several years ago. Delivery of the 4400's did not extend PCC service to any additional routes on a full-time basis, although the BAY line was so equipped on Sundays only commencing May 21st, 1950.

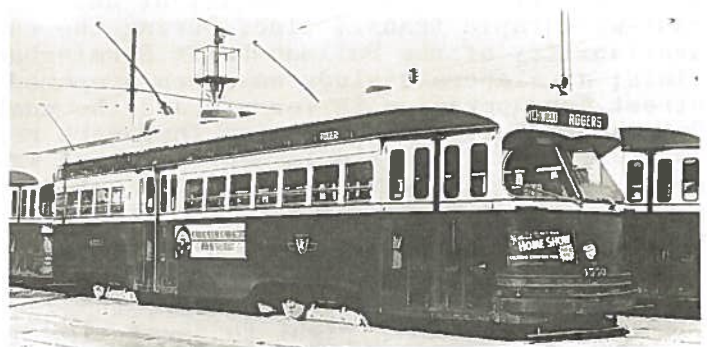
4500-4549 - Group A8: Early in 1950 the T.T.C. was giving very serious consideration to the purchase of an additional 150 MU PCC cars. On what routes these cars would have been operated had they been built will always remain a subject for speculation, as the plan was abandoned following the receipt of a very high unit price quotation from the builders. A much "watered down" order for only 50 single unit cars (with certain austerity features) was placed in March, as the Commission decided this was to be their last new car order. It was at this point in the general history of the PCC car that the inflated price of new units choked off further orders and the traffic in used PCC's commenced.

4500-4549 did not arrive in Toronto until after the 52 former Cincinnati cars had been purchased and delivered, as will be related below. They entered service at St. Clair Division in February and March of 1951 and permitted the retirement of the last former Toronto Railway Co. wooden cars. This series introduced arborite as a material for lower inside body panels, and the cars are devoid of arm rests as well as the inside panel at the standee window level. Absence of the latter caused the use of lift clasps on the window sash in place of the crank formerly used. The blue and red interior colours introduced on the 4400's were continued. In spite of the concessions to economy, the 4500's are one of the smoother-riding PCC groups.

4550-4574 - Group A9 and 4575-4601 - Group A10: Although differing substantially, these groups are discussed together because their origin is the same and they represented a single 52-car purchase.



Class A10, car no. 4575.



Class A9, car no. 4550.

In mid - 1950, T.T.C. officials, still mindful of the necessity of purchasing more than the 50 cars (nos. 4500-4549) that had been ordered in March, were made aware of the impending redundancy of the fleet of PCC's of the Cincinnati Street Railway. Investigation revealed that 27 air-electric and 25 all-electric cars, all built by St. Louis, were available (a 28th air-electric car on the property, built by Pullman, was spurned). These groups were numbered 1100-1127 and 1150-1174 respectively. Of the air cars, one (1100, now 4575) was built as a demonstrator in 1939 and differs, particularly as regards rear end design, from the other cars, while the remainder were built in 1940. The all-electric design were constructed in 1947 and were a particularly good buy, being only 3 years old.

The cars were delivered to Hillcrest commencing in September, 1950, and all had been received by December 7th. The first car refurbished for T.T.C. service (4597) was used on a charter excursion by the U.C.R.S. on October 15th, as the first revenue run of a second hand PCC car in Toronto. The all-electric cars as finished were sent to St. Clair Division, where they have remained since, while the air cars went to Russell Division and have also been confined to this division continuously. With the advent of the University Avenue subway and the ensuing surface car reassignments, the A10 group has since been restricted to rush hour operation only. Absence of foot rest bars on the seat frames, and the "no draft" ventilation sash, which interferes with vision through the windows, make these cars, from the passenger standpoint, the least attractive of all the PCC groups.

4625-4674 - Group A11 and 4675-4699 - Group A12: While the ordering and delivery of the 4400's has previously been referred to as the climax of the PCC story as far as Toronto is concerned, some may dispute this and claim that the purchase of 123 used cars in 1952 from Cleveland and Birmingham was the high point. There is, of course, no doubt that the late months of 1952 and much of 1953 were replete with a great number of interesting changes and developments in connection with the forthcoming inauguration of service on the Yonge subway, and the most interesting of the developments on the surface system would have to be the purchase of this substantial number of second hand PCC cars.

Further purchases of street cars do not appear to have been contemplated by the Commission early in 1952 when the decision was made to convert all of the two man Witts of the 2450, 2500 and 2900 series to one man cars for post-subway operation in rush hours. A program of effecting preliminary conversion of these cars (which also, strangely enough, totalled 123 in number) was undertaken by virtue of which little work, beyond the dismantling of the conductor's stand would have been required at the actual time of conversion. Only ten of the cars underwent this preliminary conversion and the program was permanently cancelled with the PCC purchases, which replaced the Witts on an exact unit for unit basis.

The Cleveland purchase was the brainchild of one T.T.C. official who realised the necessity for a substantial addition to the M.U. car fleet to handle the greatly increased traffic volume on the BLOOR line after the opening of the subway and the purchase was not only timely (having in mind events in both Toronto and Cleveland) but it was strategic in that the 50 Pullman-built cars (C.T.S. 4200-4249, later T.T.C. 4625-4674) had been constructed with wiring and other items for

M.U. operation built in, the intent having been the use of these cars on the C.T.S. east-west rapid transit line. During the consideration of the Cleveland purchase, availability of the Pullman-built Birmingham fleet was made known to T.T.C. officials; an elaborate study was then prepared dealing with the expected duration of street car operation in Toronto and the number of carlines which were regarded as "permanent" until such time as they were replaced by rapid transit lines ----- the conclusion was that the 123-car purchase was amply justified, not only for purposes of augmenting the M.U. fleet, but to modernise the overall roster having in the forecasts made for continued rail operation for an extended period on most of the heavy lines.

The Commission "bought" this report, and the Cleveland cars began arriving at Hillcrest at the end of October, 1952. The Pullmans trickled in slowly over a long period extending right to the following August; however, the St. Louis-built cars of C.T.S. series 4250-4274 (T.T.C. 4675-4699), originally built for Louisville and which were not particularly liked in Cleveland, were released much more quickly. All of this series were into Hillcrest prior to Christmas, 1952; by early February all of these cars had been released (as single units) and sent to Russell Division, with temporary linen signs, to replace trailers on the KINGSTON ROAD route.

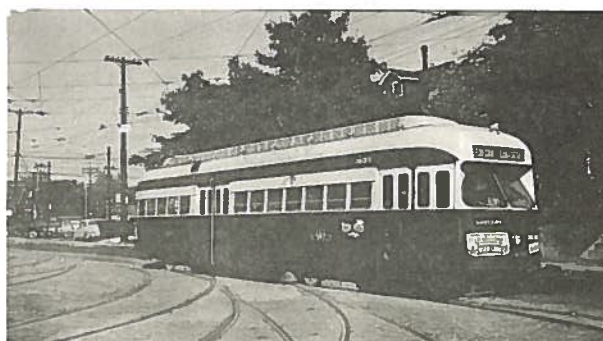
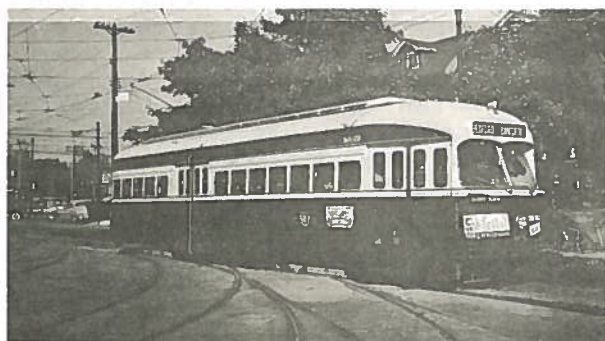
While the Pullmans arrived more slowly, the backlog of cars, particularly with the Birmingham arrivals, taxed storage facilities to the limit around Hillcrest Shops; cars awaiting admission were stored even on the standard gauge railway sidings along the south side of the yard. Twenty-five of the Pullmans were outshopped as single units and sent to Danforth Division between February and May of 1953 for service on CARLTON and HARBOR. A delay in shopping followed, while work was proceeding on the Birmingham cars, and then from late August to November the other 25 cars of class A11 emerged for distribution to Lansdowne and Danforth Divisions.

Owing to slow delivery of parts for M.U. conversion work, the Cleveland Pullmans were put into service as single units and called back into Hillcrest in late 1953 and early 1954 for final equipping; this was, however, not the case with cars 4627 and 4656, which became full M.U. cars with their initial Toronto shopping and were used in advance tests with 4400-series cars.

The "Louisville" cars (the A12 group) comprise the only PCC class equipped with double cross seats throughout the length of the car - although 58 seated passengers can be accommodated, the standee capacity is markedly lower than in the case of the other cars. They were not repainted on the interior with the first shopping, and an intense shade of green paint remained, as did their green-tinted double sashed standee windows. The Pullman group, on the other hand, had an unattractive battleship grey interior upon its arrival, and this was replaced with the T.T.C.'s standard light turquoise. Both classes were equipped with monitor roofs and ventilating fans in the ceiling upon construction. After a short period of operation in Toronto the fans were rendered inoperative and ultimately removed. Instead of receiving new headlining as did cars 4398 and 4399, circular patches were bolted over the former fan apertures. The monitor roofs have nevertheless remained to the present time, giving the Cleveland cars a continuing distinctive appearance, particularly insofar as the Pullman group is concerned.

Class A12, car no. 4692.

Class A11, car no. 4661.



An interesting operating practice which has involved cars of both groups at various times (currently the Louisville cars and the higher-numbered Pullmans) has been their assignment to the DANFORTH TRIPPER operation, wherein they remain as semi-permanently coupled pairs of units with consecutive numbers (4668 - 4669, 4690 - 4691, etc.).

4700-4747 - Group A13: The background of the T.T.C. purchase of the entire group of PCC's of the Birmingham Transit Co. (formerly Birmingham Electric Co.) has been reviewed earlier in connection with the Cleveland cars. This group was also built by the Pullman-Standard Mfg. Co. of Worcester, Mass., and delivered in late 1946 and early 1947 to the Alabama operator. Variations in body design although individually subtle, give these cars a rather different appearance from their cousins of the All class. Although basic body dimensions are identical the Birmingham cars contrive to have a somewhat more massive appearance than do the Cleveland Pullmans.

This group arrived in Toronto in two different paint schemes - blue and yellow with a red band (old), and two-tone brown and cream (new). The fact that the sale of the cars was consummated in the middle of a change in exterior livery indicates that street car operation might have continued for some time in Birmingham had the T.T.C. not been in the picture.

Car 829 (T.T.C. 4729) arrived as a pilot car on November 26th, 1952, but delivery of the other forty-seven was made between the middle of February and late May, 1953. Outshopping to Roncesvalles Division occurred between April 23rd and August 18th of that year; the cars have remained at this division since, and have been used primarily on the LONG BRANCH and DUNDAS routes.

Distinctive features of the Birmingham group are the blue-tinted standee windows, and a mute reminder of racial segregation practices in the south -- holes in the seat back handrails in which "white" and "coloured" signs were mounted during their days in Alabama.

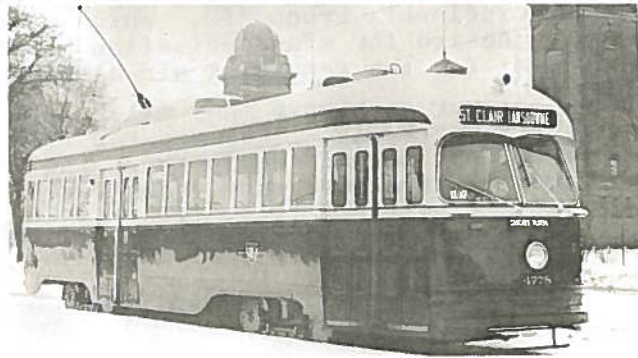
Addition of the 123 second-hand cars of classes All, A12 and A13 set the Commission system up not only for 100% base PCC operation following opening of the Yonge subway, but further enabled rush hour operation of Witt cars to be concentrated on a relatively small number of routes.

With the extensive surface reroutings of March 30, 1954, PCC operation suffered a minor setback by virtue of abandonment of the BAY and YONGE routes, which used these cars during limited times as detailed earlier. This was counterbalanced by the inauguration of the new M.U.-operated DANFORTH TRIPPER service supplementing the BLOOR route between Coxwell Ave. and Bedford Loop. A new route partially replacing the BAY service was the EARLSCOURT line, operating from St. Clair and Lansdowne to Mount Pleasant and Eglinton, with the ST. CLAIR line cut back to operate west of Yonge St. only. This route was PCC-operated from its inception.

The first abandonment of a full-time PCC route was also a by-product of the opening of the Yonge subway. In order to reduce the peak power load in the central area pending the construction of new substation facilities, the CHURCH route was suddenly converted to bus operation on May 16th, 1954, although to this day there has been no track removal on any portion of this line.

Class A13, car no. 4722.

Class A14, car no. 4778.



4750-4779 - Group A14: For some years it was thought that 4747 would be the highest numbered street car ever to burnish Toronto rails. However, a last purchase of PCC cars remained to be made in late 1957 from the Kansas City Public Service Company, which had already abandoned all street car service. Only 31 cars remained on the property when the T.T.C. negotiated the purchase of all but one of them. The reason for the purchase of the cars was to enable replacement of an equal number of the most deteriorated large Witt cars of series 2300-2448. These cars were of two groups in Kansas City, T.T.C. 4750-4752 being members of the 501-585 series constructed in 1947, while the other 27 cars were of K.C.P.S. group 725-799, manufactured a year earlier. Owing to the differences between the two groups being of a very minor nature, the T.T.C. has classified all 30 cars as a single group, class A14.

Ivory and black PCC 793 (T.T.C. 4778) was the first unit of the purchase to arrive at the unloading ramp at Hillcrest, and was also the first released for service, the dates being November 26, 1957 and January 20, 1958 respectively. All of the other cars arrived quickly during December and were outshopped between early February and early June, 1958. The cars were assigned to St. Clair Carhouse and have spent their entire time since operating on the ST. CLAIR and EARLSCOURT services. Thus the last group of PCC's purchased carries on where the first group made Toronto transit history back in September of 1938.

The Kansas City cars provided yet another interesting variation in the already richly varied Toronto PCC fleet. While electrically and operationally they are standard St. Louis built all-electric cars, the body is strikingly different from the other series by reason of the absence of standee windows and the correspondingly greater height of the main windows. This was a body design purchased only by Kansas City. The rear markers are placed below the belt rail, also at variance with the higher position on all the other groups.

Changes affecting PCC operation in recent years have included abandonment of the OAKWOOD route on January 2, 1960 and of the DUPONT route on February 28, 1963, with the opening of the University Avenue subway. The latter event finally enabled complete PCC operation of the system at all times, the total removal of rush hour small Witt operation from the KINGSTON ROAD TRIPPER and BATHURST-FORT routes being accomplished a few days after the subway opening. With the exception of charter and non-revenue movements, the system has been 100% PCC-operated since April 24, 1963, when several small Witts were operated on BATHURST to handle opening day baseball crowds at Maple Leaf Stadium.

In contrast to the older groups of cars in Toronto, almost all of which underwent substantial rebuilding during their careers, the PCC's have been little altered during the course of their service (aside, of course, from conversion work undertaken on the second hand equipment upon its arrival on the system). This is a testimonial to the basic practicality of the PCC design to mid-20th century transit operating conditions. Minor details have been added through operating experience such as the front and rear bumpers, operator's coat locker and replacement of the original four laterally moving windshield wipers (on the early groups) with two arc wipers. A program is currently in effect, after considerable experimentation over the last five years with various wheel types, of equipping all cars with super-resilient wheels.

It is not prudent to speculate too far into the future on the matter of continued PCC operation in Toronto. Opening of the Bloor - Danforth subway in 1966 will undoubtedly force retirement of all of the original 1938 A1 group as well as the former Cincinnati group A10, which as related earlier, now sees only limited service. A desire for standardisation might reasonably lead to a fairly fast rate of retirement for the remaining air-electric groups following this.

The post-war cars have many miles left in them, and while their design is now almost twenty years old, they are far from being technologically out-of-step with other present day transit equipment. The PCC car, in its later form, should be around Toronto for a good many years yet.

By way of summary there follows a tabulation of present-day PCC assignments:

DIVISION	NO. CARS	GROUP	CAR NOS.	
DANFORTH	215	A2	4150 - 4199#	(49)
		A3	4252 - 4259	(8)
		A4	4260 - 4274	(15)
		A5	4275 - 4299	(25)
		A6	4365 - 4377	(13)
		A7	4470 - 4499	(30)
		A11	4625 - 4674	(50)
		A12	4675 - 4699	(25)
LANSLOWNE	135	A6	4300 - 4364	(65)
		A7	4400 - 4469	(70)
RONCESVALLES	160	A1	4079 - 4139	(61)
		A3	4200 - 4251@	(51)
		A13	4700 - 4747	(48)
RUSSELL	103	A1	4001 - 4078*	(76)
		A10	4575 - 4601	(27)
ST. CLAIR	127	A6	4378 - 4399	(22)
		A8	4500 - 4549	(50)
		A9	4550 - 4574	(25)
		A14	4750 - 4779	(30)
HILLCREST	1	A1	4000°	(1)
# excludes car 4179, scrapped. @ excludes car 4227, scrapped. * excludes cars 4052 & 4063, scrapped. ° this car used exclusively for student operator training; not included in passenger car fleet.				

CARS WITH DUAL CONTROL DEVICE FOR OPERATOR TRAINING:

DIVISION	NO. CARS	NUMBERS
DANFORTH	11	4150-4152, 4198, 4199, 4495-4499, 4625
LANSLOWNE	13	4300-4306, 4400-4405
RONCESVALLES	9	4136-4139, 4700-4704
RUSSELL	3	4001, 4002, 4601
ST. CLAIR	9	4397-4399, 4500-4503, 4550, 4779

SUMMARY OF CAR TYPES:

<u>A. Air-electric cars</u>		
Purchased new	290	
Purchased used	27	
Total purchased		317
Total retired or converted		5
Total on hand		312
<u>B. All-electric cars</u>		
Purchased new	250	
Purchased used	178	
Total purchased		428
Total retired or converted		0
Total on hand		428
Total on hand, both types		740
Total retired or converted both types		5
Total purchased, all time		745

	<u>On hand</u>	<u>All time</u>
Total purchased new	540	545
Total purchased used	205	205
Total single unit cars	565	570
Total multiple unit cars	175	175
Total St. Louis bodies	642	647
Total Pullman bodies	98	98

(For a listing of car specifications, see Newsletter 188, pages 7 and 8)

(All photos courtesy of J.W. Hood and R.F. Corley)

RENEW MEMBERSHIPS NOW

As of December 31st, all memberships in the Society become due, and to help ease the Corresponding Secretary's labours, members are asked to renew their memberships as soon as possible, preferably before the above date. Those who may have joined the Society during the summer are reminded that they received all publications issued during the entire year, hence, received good value for their money, and will continue to receive such value in the coming year if they renew.

Renewal rates are still the modest \$2.50 for Associate Members and \$3.50 for Resident Members. Please include 15¢ exchange on all out-of-town cheques, or pay by Money Order. Those wishing delivery of their Newsletters and other publications by First Class Mail may obtain this service by including an extra \$1.00 with their remittance.

READERS' EXCHANGE

WANTED: photographs and negatives of C.P. 471, both still and action views, C.N. 2164, both as a C.N. engine and as repainted by the O.N.R. as T. & N. O. no. 137. This material wanted by Kenneth S. MacDonald, Box 773, Fredericton, N.B.

FOR SALE: photographs of early Canadian steam, including Algoma Eastern, Grand Trunk, New Brunswick Rly., etc. Available on 5 x 7" only. Send 25¢ for list and sample to Edward Emery, 398 Runnymede Road, Toronto 9.

FOR SALE: "Modern Tramway" magazines, 1953 and 1956 to 1960 complete, 1954 less August and September, 1961 January to June only. What offers for the lot? R.F. Corley, 490 Albertus Ave., Peterborough, Ontario.

WANTED: old tinplate trains, locomotives and cars, built prior to 1935, preferably Lionel or Ives. Write, giving unit numbers and condition, to J. William Hood, 301 Woodmount Avenue, Toronto 6, Ontario.

CHRISTMAS CARDS: With a Canadian railway motif. Two different styles, line drawings of (a) C.P. Pacific pushing a wedge plough through a snowdrift, and (b) C.N. Northern with a passenger train, at high speed, in winter. Cards are available at the price of 10 cards and envelopes for \$1.25, postpaid, from E.A. Jordan, 48 Woodland Park Road, Scarborough, Ontario.



Newsletter

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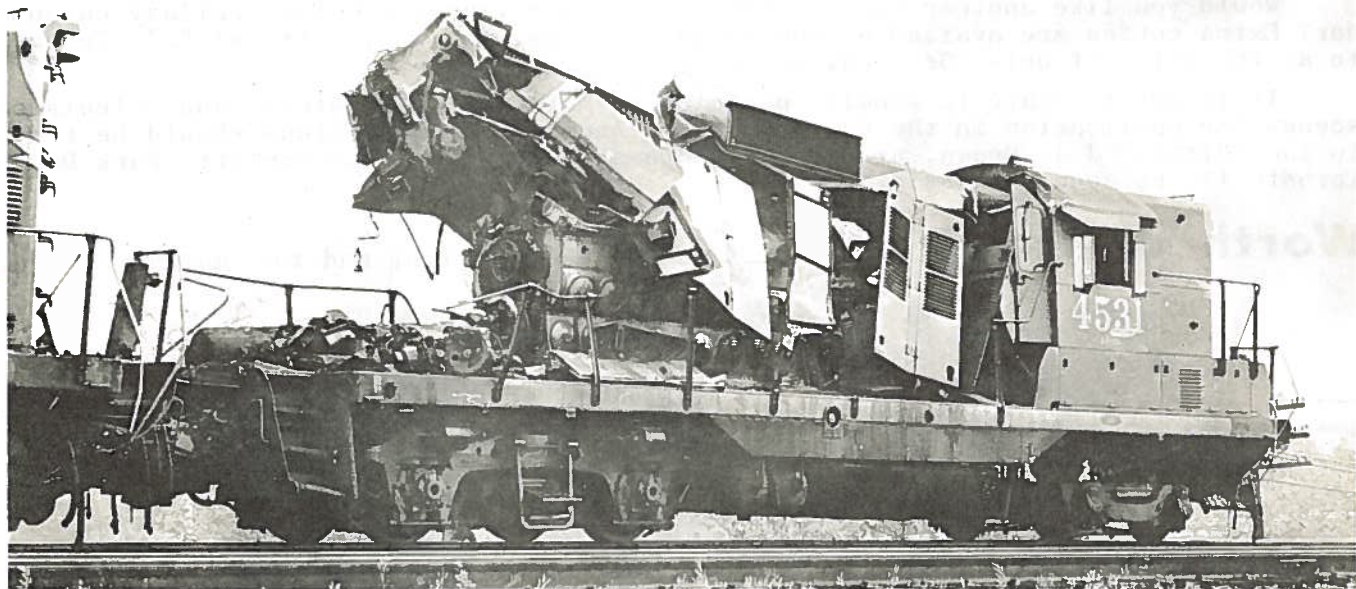
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NEWS *Railway* PHOTOS

Seen from the Super Continental: C.N.R. rail crews laying continuously welded rails on the Asquith Subdivision west of Saskatoon.

(Photo by J.A. Brown)



As the result of a lapse of memory of a tower operator, trains 409 and 454 met head-on a few hundred yards west of Sunnyside station in Toronto on October 19th. Diesel units 3725 and 4531 were so badly damaged that they will probably be scrapped.

(Photo by J.W. Hood)



U.C.R.S. Announcements

NOVEMBER MEETING

The Society meets on the third Friday of each month in Room 64 of the Royal Ontario Museum, Bloor Street and Queens Park, Toronto, with the meetings commencing at 8:15 p.m.

The next meeting will be held on November 15th, and entertainment will consist of the showing of certain 16 mm. National Film Board movies on railways.

HAMILTON CHAPTER MEETING

The Hamilton Chapter of the Society will hold its November meeting in the Board Room of the C.N. Hamilton station on the 22nd of that month, commencing at 8 p.m.

DECEMBER OUTDOOR MEETING

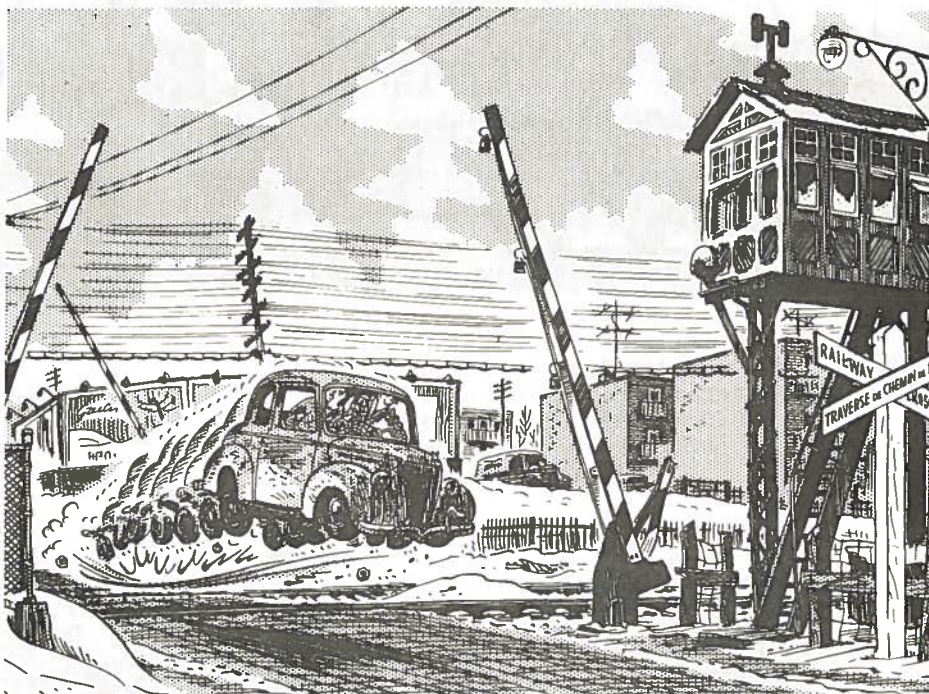
The December outdoor meeting of the Society will be held on Friday, the 6th of that month, at the C.P.R.'s West Toronto station.

PUBLICATIONS

Would you like another copy of the recently released U.C.R.S. railway calendar? Extra copies are available from Bulletin Sales, Box 122, Terminal "A", Toronto at the price of only 75¢ each, postpaid.

It is not too late to submit photographs of Canadian steam and electric scenes for publication in the U.C.R.S. Photo Annual. Contributions should be sent to the Editor, J.A. Brown, at his new address, Apt. 301, 36 Thorncliffe Park Dr., Toronto 17, as soon as possible.

Worth a Laugh _____ Courtesy Doug. Wright and the Montreal Star.



"Even if there ARE no trains, I'd think you'd slow down a little bit for the sake of the poor car!"