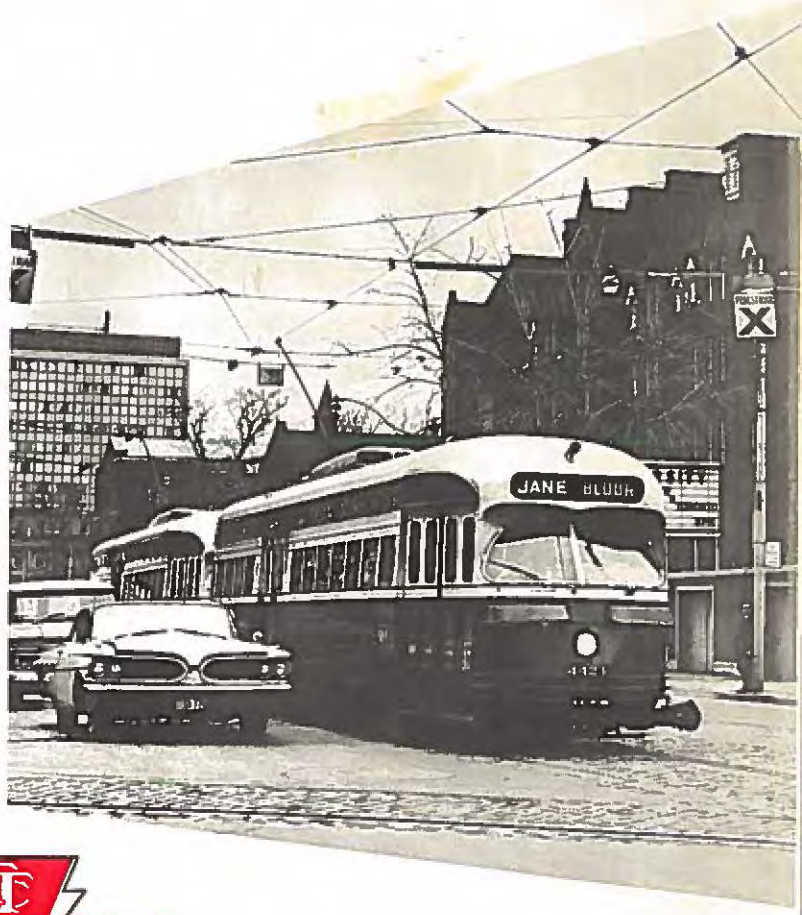
newsletter

March 1966 • 25c

BLOOR-DANFORTH SUBWAY



TTC SUBWAY

Upper Canada Railway Society

UPPER CANADA RAILWAY SOCIETY 1941

newsletter

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Editor _____ James A. Brown

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Members are asked to give the Society at least five weeks notice of address changes.

The Cover

As BLOOR PCC-trains (like this one, shown at Bedford Road) were rolling their last miles, in the tunnels below the wraps were being removed from a brand-new eight-mile stretch of subway; the train shown here at Bay Station is typical of those that greeted the first-day throngs on February 26th. See page 50.

/TTC, JAB

Contributors to this Issue

John Bromley, Gerry Burridge, Ray Corley, Tom Henry, Peter Meldrum, David Stalford, Bill Thomson, Brian West.

Production: David Stalford, Brian West.

Printing: Basil Headford.

Distribution: Chas. Bridges, Vernon Doyle, John Freyseng, Chas. McGoveran, George Meek, George Pearce, Bill Sharp, John Thompson, Ted Wickson, George Wilton, Brian Wray.

Coming Events

Regular meetings of the Society are held on the third Friday of each month (except July and August) at 8.00 p.m., in Room 64, Royal Ontario Museum, Queens Park at Bloor St., Toronto, Ont.

Mar 11-19; UCRS Display at the Canadian National Sportsmen's Show. Contact Bob McMann (783-9232) if you are able to assist in the staffing of our booth.

Mar 18th; Regular Meeting. The Annual UCRS Auction. Take this opportunity to buy or sell railroadiana from your collection.

Mar 25th; UCRS Hamilton Chapter regular meeting. Board Room, CNR James Street Station, Hamilton, Ont. 8.00 p.m.

Mar 26th; Informal outing on regular CNR trains to Goderich, Ont. Those interested should meet at the clock in the main concourse of Union Station at 7.40 a.m., for departure on train 17 at 8.00. Group returns at 4.05 p.m.

Apr 1st; A Transit Rally is planned for our April Fool's Day meeting.

Apr 15th; Regular Meeting; Programme to be announced.

Apr 22nd; UCRS Hamilton Chapter regular meeting. Board Room, CNR James Street Station, Hamilton, Ont. 8.00 p.m.

June 4th; Keep this date open for the UCRS spring steam excursion, planned this year to head east from Toronto. More details later.

Readers' Exchange

FOR SALE: Canadian and U.S. employees' and public timetables, some rare. MODERN TRAMWAY and other English magazines, all 1945-1955 vintage. J. R. Bernard, 239 Wanless Avenue, Toronto 12, Ontario.

WANTED: Photographs, preferably action, of CPR K-1-a class 4-8-4 No. 3101. Please contact James E. Lanigan, 4820 Eighth Avenue , Regina, Saskatchewan.

ALSO WANTED: 8 mm film clips of the 1960 CPR triple-header steam excursion to Orangeville. Don Wilson, 26 Greystone Crescent, Brampton, Ont.

UCRS News

"THE PREZ SEZ"

This is the first instalment of a monthly series written to indicate to you the actions of the Directors at their monthly meetings, and to place some of my observations before you.

Firstly, I would like to express my gratitude to the members for electing me as president for the coming year. I hope that I may live up to the high standards of those who have preceeded me in this office.

At the meeting of the Directors held on February 23rd, one of the most important items passed was the establishment of a Finance Committee to review the Club's financial position and to make recommendations to the Directors of any courses of action it feels should be taken, to commence on January 1st, 1967. This is being done in the interest of determining the adequacy of our present dues structure in light of our present operating expenses. The members of this committee are Rex Rundle, Bill Sharp, Stuart Westland and myself, as chairman. We will be calling from time to time on the various committee chairmen to appear at our meetings to review the financing in their respective areas. More about this in the future.

I am happy to announce the appointment of George Pearce as Chairman of our newly-formed Sales Committee. This is a big task that he is undertaking, covering the promotion, distribution and sale of all types of UCRS matter. No doubt he will be looking for volunteers to help him in this most important function. I know you will give him all the support he requires.

The Sportsmen's Show will be here once again, from March 11th to 19th at the Canadian National Exhibition. We have taken a booth at the show, and have agreed to staff it from 12 noon to 10 p.m., daily. We are asking as many of you as are able, to assist us in this venture. The old saying, "Many hands make light work," is most applicable in this instance.

The Publications Committee, under the direction of John Bromley, is progressing quite favourably. The NEWSLETTER the past while has been excellent. In the Bulletin Department, the long-awaited RDC Bulletin has met with a further delay; however, it is hoped that it will be ready for distribution around May. Also in the offing are Bulletins on General Motors Diesel at London, the Winnipeg Electric Railway, and a revised Bulletin on the Ontario Northland Railway. As you can see, there is much work to be done here, and volunteers to do typing would be greatly appreciated; please contact me (421-1347) if you are interested.

Well, that's all for this edition. Don't forget the Auction at the next meeting -- it'll be a dandy!

Good Railroading!

/Brian West

LEFT: Never to be repeated is this last-night scene showing BLOOR m-u trains at the Yonge Subway transferway. Subway trains now roll beneath Bloor and the transferway will soon be torn down. See page 50.

/James A. Brown

Railway News and Comment

TORONTO-MONTREAL IN 3½ HOURS?

The federal Cabinet is reported to be examining a $15 million proposal to finance the purchase of a fleet of gas turbine "super trains" for Canadian National's Toronto-Montreal passenger service. The trains, capable of speeds up to 160 m.p.h., would be introduced in the spring of 1967 to meet the buildup of Montreal-bound traffic expected to develop with the opening of Expo 67.

Probable prototype for the service is a new gas turbine train designed and developed by United Aircraft Corp., which is currently building two seven-car trains for testing in the Boston area. A $500,000 contract for the engines has been given to United's Canadian subsidiary at Longueuil, Que.

The proposal provides for the acquisition of six trains, each capable of three one-way trips per day on the 335-mile run between the two cities. The cost per train of about $2 million is roughly half that of a conventional train and locomotive, and operating costs are said to be 30% lower. Conventional trains on the Toronto-Montreal circuit make only one trip per day.

United engineers who have studied profiles of the CNR roadbed report the new train could average just over 100 m.p.h. on a non-stop run and complete it in 3½ hours. Air travel between the two cities now takes about 2½ hours on a downtown-to-downtown basis; the trip by bus takes seven hours.

The United train is powered by six gas turbine engines, three each slung under the lead and rear cars. Design and construction utilizes aircraft techniques. Aluminum is used to reduce car weight while a special suspension system allows cars to take curves at high speeds. Passenger seats are airline style, with folding tables for serving meals. Cars are pressurized to reduce noise, keep out dirt and remove odours.

Canadian National has reportedly been studying the concept for more than a year, but was reluctant to commit itself until the equipment had experience in actual service. However, in view of the need for fast trains for the Expo rush, the railway took the view that it would provide the service if the government would cover the financial risk involved.

A decision will have to be made by the Cabinet by the end of March in order to have the "super trains" running in time for the Expo opening in April, 1967. It will take at least a year to build the equipment, and it is expected that United's Canadian plant would receive a large portion of the contract.

CANADIAN PACIFIC RESCHEDULES SOO SERVICE

Dayliner trains 427 and 428 which formerly provided a daytime round trip from Sudbury to Sault Ste. Marie have been rescheduled to connect with CPR's "Canadian" at Sudbury. The move follows the recent discontinuance of the "Dominion", which provided Soo passengers with convenient connections to and from Montreal and Toronto.

Effective March 7th, train 428 leaves the Soo at 7.30 a.m., arriving at Sudbury at 11.15 a.m. The return trip, No. 427, leaves Sudbury after midnight, at 12.05 a.m., arriving in the Soo at 4.00 a.m. While obviously not intended to promote local travel, at least in the westbound direction, the new schedule cuts to less than an hour the connection time at Sudbury.

B&M MOVE MAY END CV PASSENGER TRAINS

The proposed discontinuance of Boston and Maine passenger service between White River Junction and Springfield, Mass., would, in effect, cut off the last Central Vermont Railway passenger service. CV's "Montrealer" and "Ambassador" presently provide daily service between Montreal, New York and Washington, and depend on B&M connections for the White River Jct-Springfield portion.

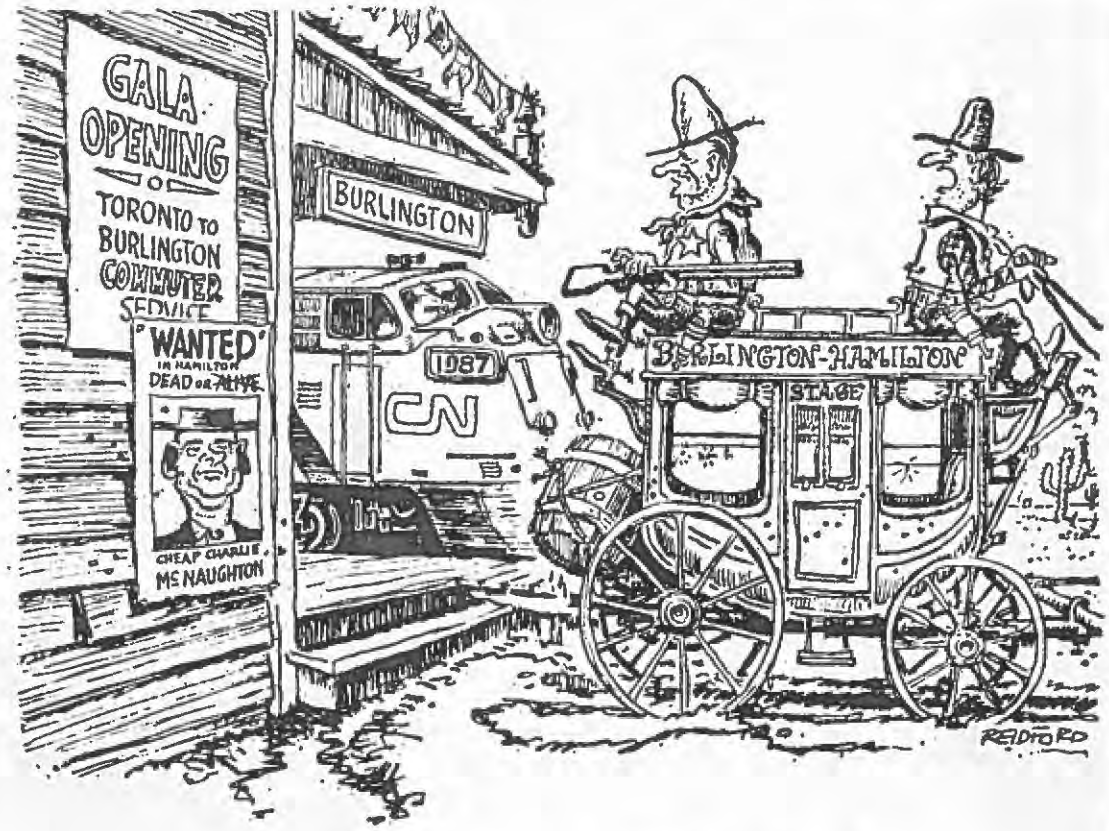
It appears that there is insufficient local traffic to warrant retention of the trains on a strictly CV basis, from Montreal to White River Jct. only. CV officials are studying the matter, and are confident that the B&M withdrawal, slated for March 7th, will be delayed by hearings and legal petitions.

CPR OFFICIALS VISIT VANCOUVER

Little was resolved in a recent visit by Canadian Pacific president R. A. Emerson and vice president George Baillie to Vancouver, where considerable criticism of CPR policies has originated of late. Although the intent of the trip was merely to "look into" the various criticisms without necessarily providing specific answers, the idea developed that a major Vancouver waterfront development statement was to be expected. Consequently, Mr. Emerson was placed in the curious position of calling a press conference to announce that he had nothing new to announce!

Mr. Emerson conceded that it is possible that CPR will develop the property over its waterfront tracks with an office building-hotel complex; however, this and other projects are stalled until a dispute between the railway and the National Harbors Board over ownership of several key parcels of land is settled.

/Toronto
GLOBE AND MAIL



'I reckon it'll be the varmint in the citified duds, Coppsy!'

HAMILTON STILL WANTS COMMUTER

Ontario Premier John Robarts has promised to meet with a Hamilton civic delegation to personally investigate that city's complaints over its exclusion from the planned Lakeshore Commuter Service, scheduled to open from Burlington to Dunbarton early in 1967.

Hamilton's mayor Vic Copps was not satisfied with CN's claim that extra trackage would be required to extend the service. "Surely the railways can arrange their schedules so commuter trains can enter Hamilton twice in the morning and twice in the evening," he protested.

PROVINCIAL ADMINISTRATOR FOR LEVIS FERRIES

An administrator was recently named by the province of Quebec to oversee the operations of the Quebec City-Levis ferry fleet, which threatened to suspend operations if fare increases were not allowed (October 1965 NL, page 170). The City of Quebec has also met with the Levis Ferry Company to discuss ways and means of improving the existing service. The ferries provide connections to Quebec City with a number of Canadian National passenger trains, at Levis.

BTC HEARING ON NEW BRUNSWICK CLOSURES

The Board of Transport Commissioners will hold public hearings in Fredericton on March 2nd and 3rd to hear complaints on CNR and CPR proposals to abandon two New Brunswick branch lines.

Canadian National plans to close 58 miles of track between Fredericton and Woodstock, while CPR has applied to abandon 2.9 miles of its Southampton Subdivision.

AGRICULTURE GROUP WANTS CPR NATIONALIZED

The powerful Canadian Federation of Agriculture will press for nationalization of the Canadian Pacific Railway. A resolution passed at the association's annual meeting in January -- in CPR's Royal York Hotel in Toronto -- called for the takeover. The resolution stated that assets of the CPR should be taken over "at actual value, less a reasonable amount for all land grants, mineral rights and other concessions received from the Dominion." Dissatisfaction with CPR's passenger service and handling of grain were given as reasons for the resolution.

COMMONS TRANSPORT COMMITTEE BEGINS SESSIONS

The Commons Transport Committee, formed to study the railway passenger situation, particularly as applied to Canadian Pacific, has begun sittings in Ottawa. While the Committee's main task is to examine the passenger policies of the CPR, particularly from the financial standpoint, it has been suggested that CNR passenger figures be examined as well, to determine once and for all whether passenger service is or can be self-sustaining, and to provide a basis for comparison of the arguments put forth by Canadian Pacific.

CNR CAPREOL YARD TO GET FACELIFTING

Construction on a $583,000 revision and expansion of Canadian National's Capreol, Ont. yard will get under way within the next few weeks. The main function of the project is to speed the flow of freight through the division point by improving classification facilities, providing through freight servicing and inspection facilities, and revising track arrangements to permit switching of passenger trains without blocking main yard entrance and exit tracks.

Capreol is located near Sudbury, Ont., and is the point at which Toronto and Montreal sections of transcontinental passenger trains are consolidated or separated for their trips to and from the west coast.

$500,000 DAMAGE IN CNR DERAILMENT

Damages in the order of $500,000 were the result of a spectacular 46-car derailment involving a westbound CNR train at Wyoming, Ont., on February 5th. The wreckage was so compressed that it occupied a space about 10-carlengths long and barely extended beyond the right-of-way fences; consequently, about 40 of the cars are expected to be total losses. There were no injuries.

The derailment involved train 493, and occurred at mile 49 of the Strathroy subdivision, ten miles east of Sarnia, at about 1.20 p.m. Train speed was estimated at 50 m.p.h. By 6.00 a.m. the next morning, a diversion had been built around the wreck on the north side; all traffic used the Forest Subdivision (from Sarnia Jct. to St. Marys Jct.) to bypass the wreck scene until the diversion was completed -- with the completion of the diversion, all traffic returned to normal routing with the exception of westbound freights which used the Forest Sub. until mid-week. Wreckers from Toronto and London cleared the debris.

This was the third derailment in the immediate area in little over a year, following mishaps at Wyoming and Mandaumin in January and June, 1965.

SUGGEST "SCOTIAN" OR "OCEAN" RUN TO SYDNEY

A proposal made recently to the Truro, N.S. Board of Trade by a group of CNR employees suggested that one of the two Canadian National passenger trains running between Halifax and Montreal be switched to the Sydney-Montreal run, via New Glasgow. According to the proponents of the idea, there are sometimes more passengers going to Sydney than to Halifax.

Truro-Sydney passengers are presently served by Railiners. The proposal would have either the "Ocean Limited" or the "Scotian" operate to Sydney, with a Railiner connection to Halifax.

ABOVE: Utter chaos is the scene in this photo taken minutes after 46 cars of CN's westbound No. 493 derailed near Wyoming, Ontario.
/Copyright, London Free Press

BELOW: CNR train 6 skirts the wreckage on a temporary "shoo-fly" as the London wrecker attempts a lift.
/Chas. Bowman

WHO'S RUNNING THE RAILROAD?

Canadian railroad executives must be a frustrated lot. On one hand are the incessant criticisms and condemnations by government and labour leaders over the inadequacies and inefficiencies of railway operations, while on the other are demands for reduced freight rates, increased wages and fringe benefits, etc., etc., etc. Here are a few examples that have been raised during the past month:

* The Saskatchewan legislature examined a resolution which would require a full analysis of probable financial impact on affected municipalities, in the case of proposed branch line abandonments, in spite of the railways' pleas that the lines are operating under considerable losses. The same legislature examined a further resolution urging the federal government (not the railways) to lower freight rates in the Saskatchewan area as a stimulus to the province's economic boom.

* As a result of a promise in the House of Commons, Canadian National recently found itself adding a passenger stop at Smiths Falls to the schedule of its recently-introduced Ottawa-Toronto trains. The stop was "essential to the welfare of eastern Ontario".

* Creditiste MP Charles Gauthier has vowed to appear in court to "accuse the CNR of criminal negligence" if certain of its locomotives (No. 3883, according to Hansard) are involved in accidents. Two CNR engineers had told him the engine was unsafe because of the limited visibility it allowed the engineer under snow conditions. He complained to CNR about the "design fault" and was told that the engines were completely safe and met the approval of the Board of Transport Commissioners. "Irresponsible," said Mr. Gauthier.

* With real doubt existing over whether or not the railways actually were responsible for delays in this winter's wheat shipments, James Bentley, president of the Canadian Federation of Agriculture, recently stated that Canada lost wheat sales of 200 million bushels in the current crop year because the "railways could not move it." He told reporters that the figure, over and above the record 600 million bushels now being shipped, had been supplied by the Canadian Wheat Board. However, no one seemed too sure to whom the 200 million bushels would have been sold....

* The Drumheller, Alta., Chamber of Commerce will oppose a CNR request to drop its Edmonton-Drumheller Railiner service, since the city expects more than 1,000 visitors a month with the opening of a federal penitentiary there this fall.

* The TIMMINS DAILY PRESS thinks it would be nice if locomotives operating on lines which parallel highways would dim their lights for approaching automobiles. Explains the paper;

"It isn't impossible for engineers to dim their locomotive lights. Anyone who looks closely at the front of a diesel engine will notice each light is made up of two units. In yard duty, usually only one light is turned on. For main line travel, both units provide illumination..."

So that's how it's done!

* Experiments by Canadian National with the "Alertor", an electronic device designed to eliminate the so-called dead-man control on locomotives, have been strongly objected to by two Canadian railway unions. The "Alertor" requires that a normal number of functions be performed that involve touching or releasing a metallic part of the cab or controls every 20 seconds; apparent inactivity for longer than this period causes audible and visual signals and ultimately stops the train. The unions fear that the "Alertor" would become a distraction, and therefore would be unsafe. According to the manufacturer, extensive testing in the United States showed that virtually no signals were given when the engineer performed in his routine manner; furthermore, unlike the dead-man control, the "Alertor" cannot be "jammed".

* And in brief:

-Oshawa doesn't like its "abandoned branch line structure" that serves as a passenger station.

-Hansard records Parliamentary complaints about "unfair" CN road transport competition against Quebec truckers, CN express freight policies in the Maritimes, CN passenger service in Gaspe and Newfoundland, CN coastal Newfoundland shipping, CN proposal to cut passenger service between Kapuskasing and Hearst, Ont., salaries paid to CN stationmasters, CPR service curtailment in B.C., CPR passenger service in general, CPR Bay of Fundy Service, only "superficial" improvement in bilingualism in CN and Air Canada, CN-ON Northern Ontario and Quebec passenger service, numbers of Canadian boxcars in the United States, CPR fares in comparison with those of CN, etc., etc., etc.

-Pickersgill thinks the railways should order more boxcars and other rolling stock.

-A Nova Scotia MP thinks that turbine-powered "super trains" would be just the thing for the Montreal-Halifax run.

Everyone will agree that outside scrutiny is helpful and virtually essential to the efficient functioning of any business enterprise, but with so many others in the railways' cab, one wonders at times if there's room for the engineer!

B.C. RAIL LINES SNARLED AGAIN

Two freight train derailments and a rock slide in the Fraser Canyon tied up rail traffic on B.C.'s two east-west rail lines on February 19th.

At Haney, 35 miles east of Vancouver, 200 feet of Canadian Pacific's main line were torn up when 23 cars of a westbound freight train left the rails. The wreck forced the westbound "Canadian" to wait at Haney while wrecking crews cleared the line; passengers were taken on to Vancouver by bus.

Earlier the same day, a snow and rock slide thundered across the CPR line 13 miles west of Revelstoke, derailing 11 freight cars of a passing train and narrowly missing the locomotives.

Canadian National trains were delayed up to eight hours by an 80-foot wide rock and mud slide in the Fraser Canyon.

No injuries were reported in any of the accidents.

SUGGESTS CNR BUY SHARE IN PGE

It was suggested recently in the British Columbia legislature that the province might have a better chance for federal subsidies if Canadian National Railways bought into the provincially-owned Pacific Great Eastern Railway. The federal government will not contribute operational subsidies to the PGE, although grants are made to the CNR and CPR.

A Liberal member suggested that instead of the province buying the remaining $25.2 million worth of unissued PGE shares, federal authorities should be persuaded to buy them. "We would still have shareholder control of the railroad and we would be in an excellent position to get federal subsidies as well," he said.

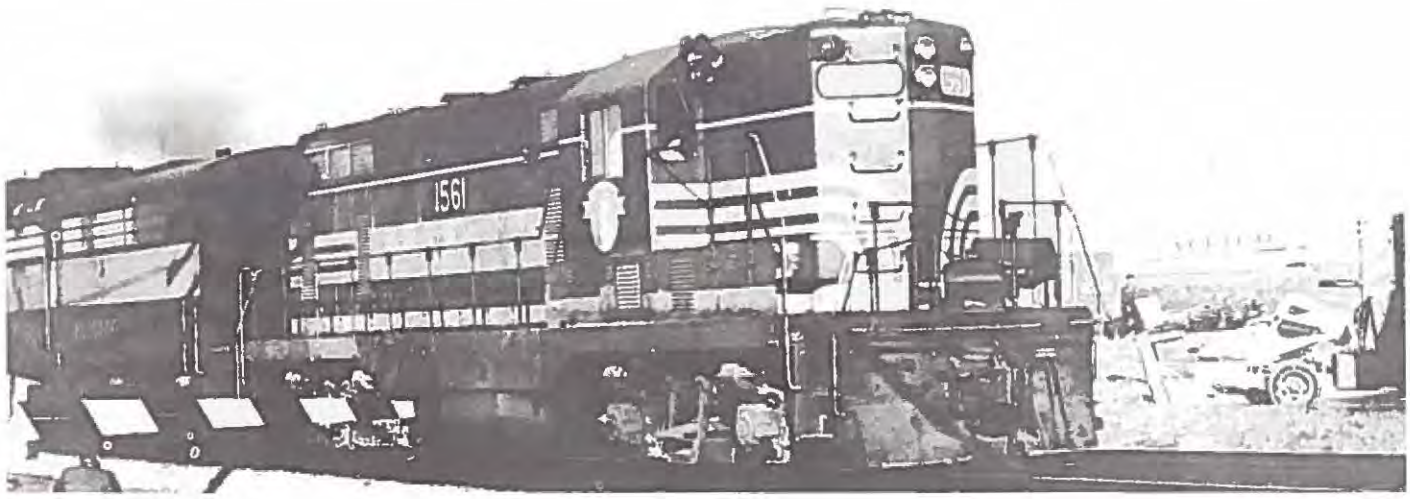
TORONTO REDEVELOPMENT PICKS UP STEAM

Canadian National has advertised for proposals for the lease and redevelopment of its downtown Toronto property now occupied by the Simcoe Street Freight Sheds, whose function will be transferred to Toronto Yard in early 1967. About nine acres of land on Front Street, between Simcoe and John Sts., are involved.

Elsewhere, discussions are again under way between civic and rail officials concerning the redevelopment of the area now occupied by rail facilities in the Union Station area. The Toronto STAR reports that a massive rail, air and bus terminal is being planned as part of a $100 million residential-commercial-industrial complex over rail facilities south of Front Street. A huge concourse, to be built at Front and York Streets and taking in the existing Union Station, would include terminal facilities for both railways, all bus companies and airline passengers. The development would cover the area south of Front Street, stretching from Bathurst St. on the west to Parliament St. on the east, a distance of 26 blocks.

"DAYLINER" COMPROMISE ON "DOMINION"?

The TRANSPORTATION NEWSLETTER speculates that a compromise over the dropping of the "Dominion" may be developed between CPR and the federal government as a result of appeals to the government over the end of "Dominion" service, suggesting that the compromise "might well prove to be a Dayliner,or rail diesel car,service between Winnipeg and Calgary."



Equipment Notes...

CANADIAN NATIONAL RETIRES MORE DIESELS

During the month of February, CNR wrote off a total of 19 diesel units, most of which were considered beyond economical repair:

Retired Feb 10/66 -- Units to be traded to MLW for Century 424's, series 3206-3221 (These units were wrecked at Nauwigewauk, N.B., December 28/65. See January NL, page 7.):

3060, 3079, 3087, 3807.

Retired Feb 15/66 -- Units in all probability to be scrapped:

1, 74,
2207, 2209, 2211, 2216,
2900,
9303, 9304, 9308, 9318,
9320, 9322, 9342, 9344.

EMD DEMONSTRATORS SHOW OFF ON CPR, CNR

Electro-Motive SD-40 demonstrator units 434C and 434D are currently showing their capabilities to Canada's railroads.

For three weeks in February, the units were on test for Canadian Pacific, bearing road numbers 7000 and 7001. Carrying Dynamometer Car 62, Business Car Mount Stephen, Sleeper Glengarnock, and a borrowed CN Steam Generator unit with them wherever they went, the units hauled piggyback between Toronto and Montreal, made two trips to western Canada, and found time for a sidetrip to Farnham from Montreal. On one of their western trips, they broke from the prearranged test programme and operated west of Calgary over CP's mountainous main line; reaction to the performance of the six-motor units over this territory was reported to be most enthusiastic.

As 434C and 434D, the demonstrators are now testing on CN lines between Montreal/Toronto and Edmonton, in company with CN Dynamometer Car 69, Test Car 15015 and a Steam Generator unit.

It is understood that at least one other Canadian road, the Algoma Central, is interested in having a look at the SD-40's.

OPPOSITE: Heading west to help out on CP's western grain traffic is B&M GP-7 1561, shown here at Birchmount Road in Scarborough, Ont.
/Peter Meldrum

CANADIAN NATIONAL MOTIVE POWER NOTES

As of December 31st, 1965, the following MR-10 class road switchers had been modified with four-wheel trucks:

1706, 1708, 1709, 1710, 1716,
1717, 1719, 1721, 1723, 1729.

Shufflings of CN's USA-based locomotives that have occurred during the past few years may be summarized as follows:

Numbers	Transfer	Date
4552-4557	CV to GTW	Jan 7/65
3610-3612	DW&P to CV	Jan 3/65
3609/13/14	DW&P to CV	Jan 4/65
7900-7905	CN to GTW	Jan 18/65
7902	GTW to DW&P	
8205	GT to CV	Nov 1/63
	CV to GTW	Dec 22/64

All of these units are US-built.

Commencing the beginning of March, CN's leased Duluth, Missabe and Iron Range diesels will be returned to their owner at the rate of five units per week.

The new/rebuilt grouping given in the last NL for CN's new Century 424's was inadvertently reversed. Nos. 3202 to 3205 will be new locomotives, while Nos. 3206-3221 will be rebuilds.

CANADIAN PACIFIC MOTIVE POWER NOTES

CPR has added two more B&M locomotives to the list on page 26 of last months issue; Nos. 1557 and 1558 will join the remainder of their class in CP service at Alyth shop in Calgary. The leased B&M units from 1556 up are Electro-Motive GP-7's, while Nos. 1511, 1535, 1536 and 1540, still working in eastern Canada, are Alco RS-3's as previously noted.

Five Century 424's were added to the CPR roster in February, as follows:

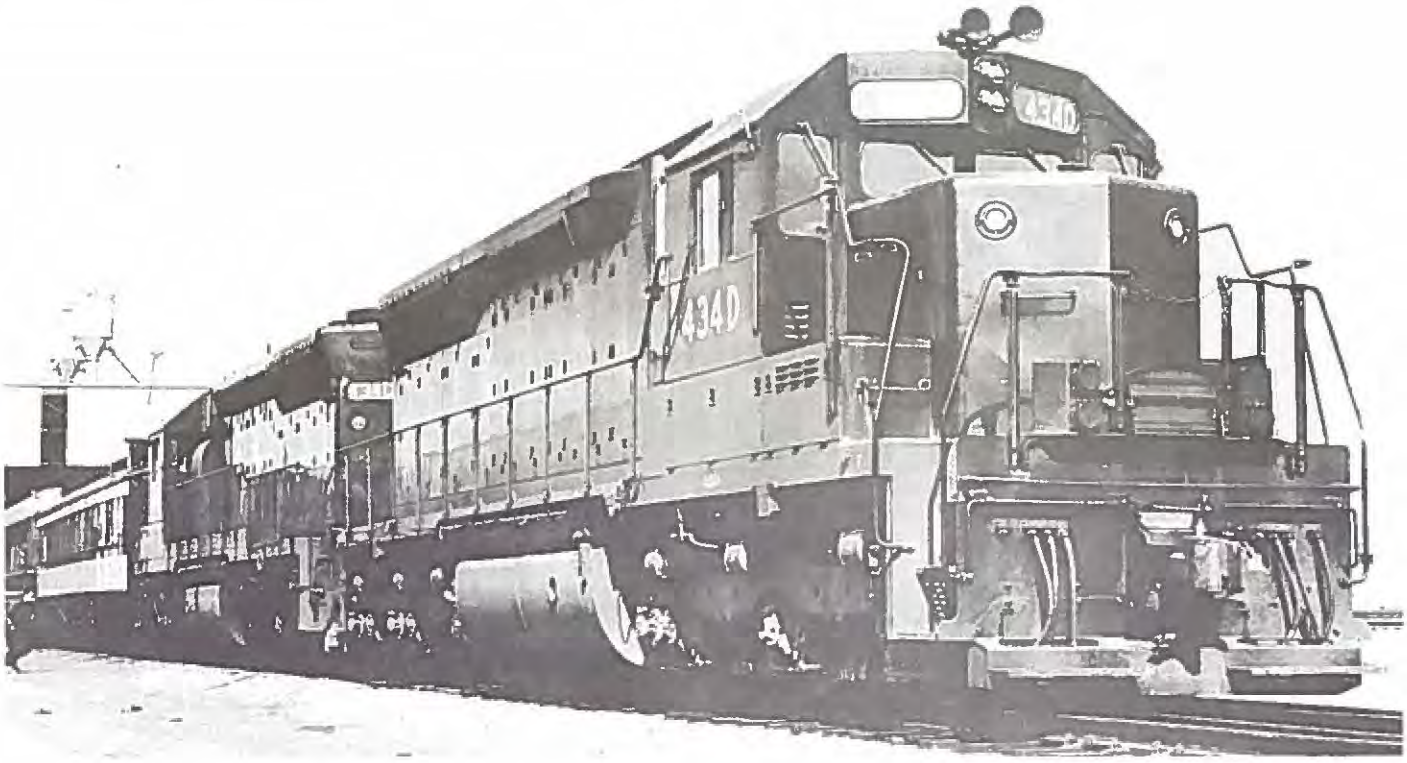
4244 - February 3rd
4245 - February 10th
4246 - February 16th
4247 - February 23rd
4248 - February 25th

During the same period, Nos. 4014, 4022 and 4046 were turned in to Montreal Locomotive Works. However, 4014 received an unexpected reprieve on March 3rd when it was "reactivated" and returned to CP service, almost exactly a month after it had been sent to MLW. During February, MLW road switcher 8557 suffered heavy fire damage, and it was decided to turn this unit in in place of 4014.

Unit 8774 was extensively damaged in a wreck in mid-February on the Nipigon Subdivision, and is now at Angus Shops awaiting disposition.

LEFT: Formerly numbered L-5, and still bearing unmistakeable L&PS traces, CN's newest locomotive acquisition trundles around London, Ont.
/Bill Thomson

BELOW: A day or so after being delivered to CN, EMD's SD-40 demonstrators get a once-over at Toronto Yard. Note the instrument wiring.
/James A. Brown



CPR TRANSFERS GM UNITS TO CALGARY

To ease a critical motive power shortage on its western lines, Canadian Pacific shifted the assignment of 31 GM diesel units from St. Luc (Montreal) to Alyth (Calgary) during February. The following locomotives were involved:

4061, 4062, 4063,
4435, 4437, 4438, 4439, 4440,
4441, 4442, 4443, 4444, 4445,
8701, 8702, 8703, 8704, 8705,
8706, 8707, 8708,
B&M 1556, 1557, 1558, 1559, 1561,
1573, 1574, 1575, 1576, 1577.

Although these units will operate primarily in western Canada, they will occasionally be seen in the east.

MARATHON CORP. RECEIVES NEW LOCOMOTIVE

The Marathon Corporation of Canada recently took delivery of a 1000 h.p. switcher from Montreal Locomotive Works. The unit bears the road number 28-120.

OPPOSITE: Little time is left for British Railways' famed "shovel-nose" A4 Pacifics, of which "Silver Fox" is a prime example.
/Collection of Chas. Bowman

World Railway News

...Edited by Peter Meldrum

* Austrian Federal Railways (ÖBB) officials have shown interest in a new type of Swiss locomotive and are subjecting one to operating trials on the Semmering line. The units concerned are two prototype AE4/4II silicon rectifier locomotives from the Bern-Lötschberg-Simplon Railway and built by SLM, with electrical equipment by Brown Boveri. The locomotive weighs 80 tons and can develop a maximum of 6240 h.p. It can handle 630 tons on gradients of 27/1000 at up to 75 km/hr.

* A noteworthy fact is that the average speed of the world-famous BR "Flying Scotsman" London-Edinburgh express, renowned as one of the fastest non-stop trains, is bettered by Canadian National's "Rapido". Quite enterprising for colonials!

* Aeronca Manufacturing Co., in cooperation with the Southern Railway and Alcoa Aluminum have produced a novel type of hopper car which could revolutionize the bulk handling concepts of American railroads. The vehicle can carry 230 tons of coal and yet weighs only 40 tons.

The vehicle consists of four two-axle cars permanently coupled, and with standard couplers and brake fittings at each end. Designed to withstand North American stresses, it is largely of aluminum construction. The suspension system employs two sets of coil springs, for empty and loaded conditions. Disc brakes are employed.

The vehicle is designed to be unloaded on the move, and each unit can be emptied in 18 seconds. It will be interesting to note the success of this car in view of the less-than-enthusiastic reception of previous four-wheel car designs in the United States and Canada.

* Fast interurban and suburban services over the Czechoslovak State Railways electrified lines are now being worked by EM-475 four-car sets built by the Tatra plant. Each set accomodates 300 seated passengers and 380 standees. A noteworthy feature of the design is the depressed centre portion of each car in which the floor is a mere 1'-11" above the rail; four steps lead from the entrance vestibules in each car to the end portions where the floor is a conventional 4'-1" above rail.

* English Electric has secured a $10.5 million order for 50 diesel electric locomotives for the Portuguese Railways. Ten of the units will be built in England and the remainder (under license) by a Portuguese manufacturer in Lisbon. The locomotives are 1350 h.p. road switchers of B-B wheel arrangement.

* The Japanese National Railways are not yet satisfied with the results so far achieved by the New Tokaido Line in terms of speed. Despite the fact that they already operate the fastest passenger trains in the world, a Super-Express Research Committee has been set up to design and produce second generation vehicles for introduction in about five years; the new vehicles will permit reduction of the present 3 hour and 10 minute schedule to 2 hours and 30 minutes for the 320-mile Tokyo-Osaka run -- this would entail an average speed of 128 m.p.h!

* Various Continental electrification programmes due for completion in mid-May will produce extensive changes in timetables with speedups in many services. Of particular note is the fact that continuous electric traction will be available between Ostend/Brussels and Austria, Yugoslavia and Sicily.

* According to usually reliable sources, the famed A4 Pacifics of British Railways are expected to remain in regular service only until mid-June. This will be the last year for many classes of British steam power, and it is recommended that those introduced

it is recommended that those interested in seeing and photographing British locomotives do so this year, since steam power will be sparse after 1966.

* The continuing increase in BR's deficit has resulted in an escalation of some passenger and freight rates. Some freight tariffs have jumped by 20% while others show only a 5% boost; passenger fares are 8% higher, with reservations and sleeping accomodation being hiked as well. Quite a contrast to Canadian National!

* Reader contributions are solicited for this column. Items should be submitted to Peter Meldrum, 16 The Links Road, Apt 105, Willowdale, Ontario.

all about the

BLOOR-DANFORTH SUBWAY

Data Supplied By:

Toronto Transit Commission

Edited By:

Brian West and James A. Brown

Travel time for many transit riders in Metropolitan Toronto was cut in half when the city's new Bloor-Danforth Subway opened to the public at 6.00 a.m., Saturday, February 26th. The new 8-mile crosstown line -- the final stage of the $200 million Bloor-Danforth-University subway project -- was officially opened at 2.00 p.m. Friday, February 25th by the Rt. Hon. L. B. Pearson, P.C., M.P., Prime Minister of Canada, and by The Hon. John P. Robarts, Prime Minister of Ontario.

The new line extends Toronto's subway system along Bloor Street and Danforth Avenue -- the city's principal east-west traffic artery -- from Keele Street to Woodbine Avenue; Toronto now has 15 miles of subway in service.

Coincident with the subway extension, street cars were removed from Bloor Street and Danforth Avenue between Keele and Woodbine, and from several other major thoroughfares as well.

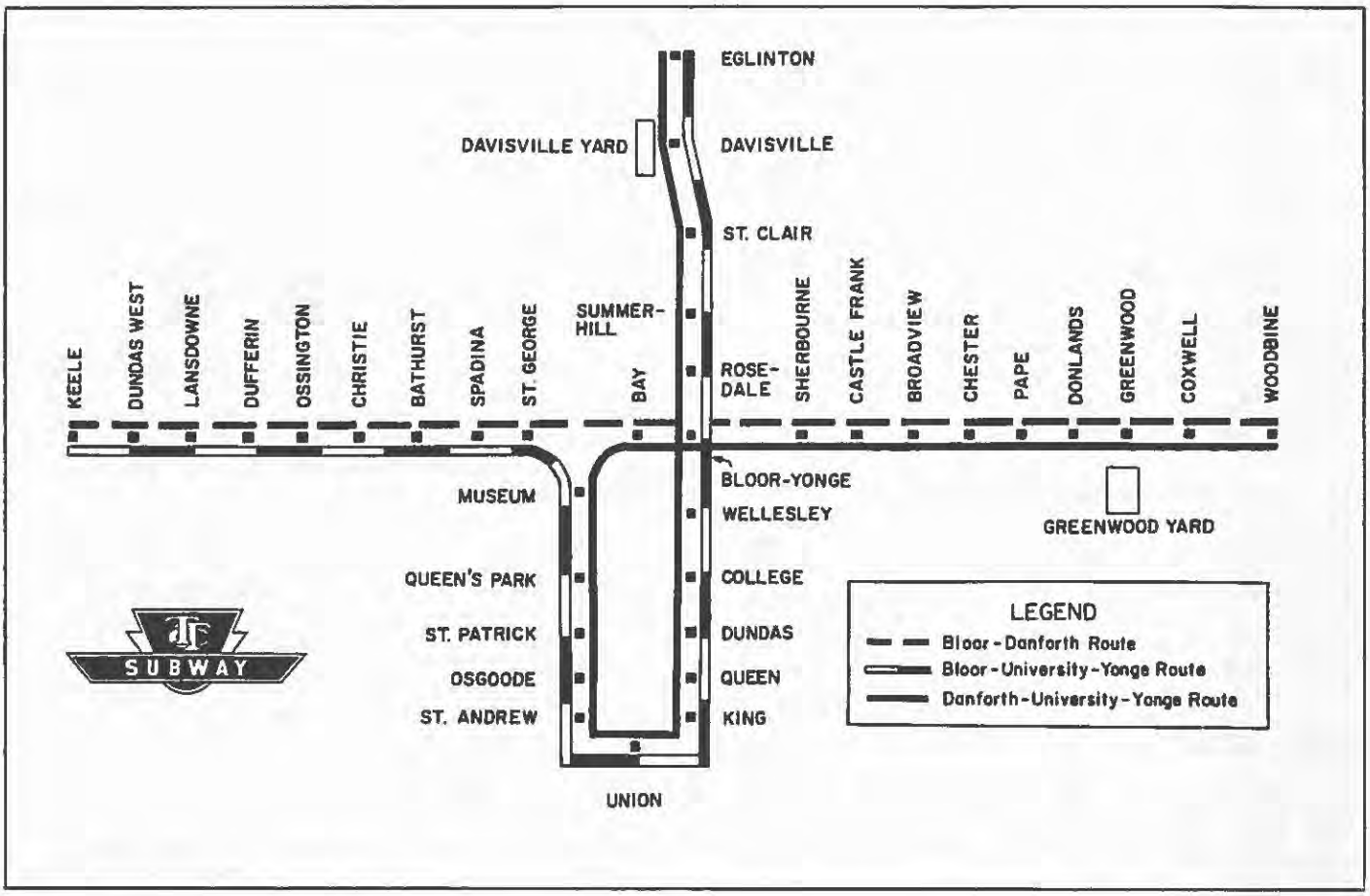
BACKGROUND

The need for an east-west subway route was apparent even before the Yonge Subway was opened in March, 1964. In rush hours, a total of about 12,000 people per hour were using Bloor Street, with 9,000 of these riding the multiple-unit BLOOR streetcars and taxing the line to its limit.

In 1956, in response to urgings by the TTC for an east-west line, Metropolitan Toronto Council authorized the preparation of plans and estimates. These were submitted to Council in January, 1958, and called for a subway beneath or parallel to Bloor and Danforth from Keele St. to Woodbine Ave., with an extension of the Yonge Subway up University Avenue to Bloor St. to provide additional capacity into the downtown area.

Approval by the Ontario Municipal Board was granted in September, 1958, and in April, 1959 Metropolitan Council approved financing arrangements for the $200 million subway, giving the green light to the biggest, most important public transit project ever tackled in Metropolitan Toronto.

On November 16th, 1959, the then Prime Minister of Ontario, Leslie Frost, operated a power shovel to signal the official start of construction on the two-mile University line. It was completed and officially opened on February 28th, 1963.



Originally, because of financial considerations, the Bloor-Danforth-University Subway was to be built and opened for service in three separate stages; 1) the University section, 2) the east leg from St. George to Woodbine, and 3) the west leg from St. George to Keele. Final completion was slated for 1969, but the province of Ontario advanced a $60 million loan which made it possible to build stages 2 and 3 concurrently.

RIGHT-OF-WAY

The Metropolitan Corporation purchased and retained ownership of the right-of-way. It expects to recover much of the land costs through the sale or lease of surplus lands and air rights over the subway. More than 800 properties were expropriated, about 70% of them residential. Permanent sub-surface easements and temporary easements during construction were likewise negotiated by the Metropolitan Toronto Subway Property Committee who were responsible for the provision of a cleared right-of-way.

ROUTE ALIGNMENT

The Bloor-Danforth Subway extends for a distance of eight miles across Bloor Street and Danforth Avenue.

The alignment west from St. George Station to Keele Street is mostly underground construction, using the cut-and-cover method, but includes a short section (1842') of tunnel beneath the CNR and CPR tracks east of Dundas Street.

The alignment east from St. George Station to Woodbine Avenue is a combination of cut-and-cover construction and 2250 feet of tunnel between Yonge and Sherbourne Stations. Complete two-way, two-track interconnection with the University line is by means of a grade-separated wye east of St. George Station. The Bloor-Danforth line crosses beneath the Yonge line, with a two-level station at Bloor and Yonge Sts. -- Bloor Station on the Yonge line, and below it, Yonge Station on the Bloor-Danforth line.

The line continues east from Sherbourne Station over a 532-foot covered concrete bridge spanning the Rosedale Ravine, across the existing lower deck of the Prince Edward Viaduct over the Don River, and then by cut-and-cover east to Woodbine Avenue. Provision for the lower deck of the Viaduct was built into the bridge when it was constructed in 1917.

SUBWAY STRUCTURE

The cut-and-cover portions of the line are typical concrete box structures, 33'-2" wide by 17'-8" deep, divided into two sections for the two tracks, each with an inside width of 13'-6" and a clearance over top of rail of 13 feet.

The tunnelled sections, because of cost used only when necessary to avoid surface disturbance, consist of twin circular tunnels, each 16 feet in diameter and lined with cast iron.

The depth of subway structure below street level varies from 10 to 35 feet.

NOISE CONTROL

To help provide a quiet ride for passengers, extensive use has been made of acoustic material in the construction of the Bloor-Danforth Subway. The lower portion of the tunnel walls and the exposed surface under the edge of the platforms have been acoustically treated with sprayed asbestos fibre to reduce the noise originating at track level. Acoustic tile has also been used on the ceilings in mezzanine levels to reduce noise in these areas.

LIGHTING

Lighting intensities in the Bloor-Danforth subway are generally the same as in the Yonge-University line and are believed to be higher than those in general use in most other subways. The lighting level for station platforms is 7.5 foot-candles; for collector booth areas, 10 foot-candles; for corridors, 7.5 to 10 foot-candles; and for the tunnels, 1.5 foot-candles.

The fixtures used were selected on the basis of dust-tightness, appearance and ease of maintenance. They are equipped with 40-watt fluorescent lamps. A continuous row of fixtures is used to light the platforms.

The power supply to all public areas is fed from two separate sources so that in the event of failure of one source, every second fixture in a row remains lighted. An emergency lighting system is installed which can be supplied by d.c. power from storage batteries. In the event of complete a.c. power failure, adequate emergency illumination is automatically maintained.

TRACK CONSTRUCTION

There are 9.5 miles of double tracks in the Bloor-Danforth Subway from Keele to Woodbine. In addition, there are almost ten miles of single track within the Greenwood Yard and Shops area and the Keele sidings. A total of 5170 tons of running rail was installed, exclusive of special trackwork such as turnouts, diamonds, crossovers, frogs, etc. To reduce wear, special heat-treated rail was used for all short radius curves.

As in the Yonge-University line, the running rail is welded to produce a smooth, quiet ride. Between the concrete floor or invert and the base of the rail, rubber pads are inserted to provide vibration damping. The rail is secured to the concrete invert by heavy bolt assemblies.

In addition to the running rail, 3570 tons of contact rail were purchased for installation adjacent to the track, to carry traction power energy for the operation of the trains. The contact (or "third rail") is isolated from the subway structure by heavy porcelain insulators since it carries a potential of 600 volts d.c.

TRACTION POWER

The traction power system for the Bloor-Danforth line is basically similar to that in use on the Yonge-University line. Toronto Hydro supplies 13,800 volt power at 60 cycles a.c. to new substations at Woodbine, Greenwood, Broadview, Delaware and Indian Grove. At each substation, the intake voltage is transformed and rectified to give 570 volts d.c. Switchgear and transformers are practically identical to previous Toronto subway installations, but an important innovation is the use of silicon rectifiers in place of the previously-used mercury arc type. This modern equipment is of considerably less weight and size, requires much less maintenance and has a much greater operating efficiency.

STATIONS

Nineteen new stations have been constructed along the Bloor-Danforth Subway line. The name of the station indicates the street location of the main entrance in the case of all stations except Greenwood, where the entrance is on Linsmore Crescent, one block east of Greenwood Avenue.

At St. George Station, the present terminus of the Yonge-University line, there is a new lower level. Bay Station has two track levels, and the combined Bloor Station on the Yonge line and Yonge Station on the Bloor-Danforth line also has two track levels where the two subway lines intersect.

At all stations, train platforms are 500' long. Three stations, St. George, Bay and Yonge, have island platforms while at the remaining stations, tracks are in the middle with platforms along both sides.

The platforms and mezzanine areas of the new stations are generally similar in appearance and design to earlier stations. Glazed ceramic structural tile has been chosen for all station interiors with contrasting colour trim in the same tile. (Station colours are given on page 202 of the November, 1965 NEWSLETTER) There are a total of 45 escalators, at least one in every station on the line.

Keele Station is the only one on the subway line to be built entirely above ground. Because of the grade in the station area, the subway train platforms are elevated above street level. The station is completely enclosed and is of pleasing, contemporary design. Bus and streetcar loops for connecting surface routes are at street level. Keele Station features a moving ramp to convey passengers to platform level. This endless belt is 4 feet wide and 100 feet long, rising at a 12° angle for 20 feet, and can carry 7200 persons an hour at a speed of 90 feet per minute.

For additional passenger convenience, secondary automatic entrances have been provided at six stations; Keele, Lansdowne, Ossington, Bathurst, Bay and Sherbourne. Similar automatic entrances are in use at Eglinton and St. George Stations on the Yonge-University line. Entrance via these gates is normally through automatic turnstiles by adult token or cash fare only, although there is provision for manning them during peak hours. The automatic entrances are kept under observation by closed-circuit television cameras, and an intercommunication system enables collectors to communicate with passengers.

LEFT: The new subway's only elevated station, at Keele Street, is strikingly apparent in this aerial view, looking northwest.

/TTC

PLATFORM DESTINATION SIGNS

An innovation on the Bloor-Danforth line is illuminated automatic train destination signs located on the station platforms and also in the mezzanine areas at terminal stations. With the introduction of integrated subway service, alternate trains operate to different destinations. The signs are to alert passengers to the destination of the oncoming train before it enters the station.

The signs are controlled automatically by signals from train identification equipment transmitted through the subway signal system. Ten seconds before the train arrives a gong sounds and the sign displays the correct train destination. The sign cancels as the train departs.

SIGNAL SYSTEM

The Bloor-Danforth Subway signal system is a wayside three-aspect colour light system similar to the existing equipment provided on the Yonge-University line. Automatic train stop equipment is provide at each signal location. The Bloor-Danforth signal system is divided into "interlocking" and "automatic" sections.

The "interlocking" sections are at Keele, Ossington, St. George, Broadview, Woodbine and the entrance to Greenwood Yard. In these areas, two or more track route choices are possible, and track switches and signals are interconnected so that the system will refuse to signal two trains onto tracks that would bring them into conflict.

In the "automatic" sections, where there is only one track in each direction, the signals are controlled automatically by the trains operating in the section. These sections extend from Keele to Ossington, Christie to Spadina, Yonge to Broadview, Chester to Donlands and Greenwood to Woodbine.

The focal point of the signal system is the central control panel at St. George Station from which the entire subway can be observed on a lighted track diagram. Location of trains, train destinations, position of track switches, signal aspects, and other information vital to the signal system and the operation of the trains are displayed on a schematic track diagram. By means of these indications, the operator is able to assess the complete subway operation and take any action that may be necessary to alter or correct it.

AUTOMATIC TRAIN DISPATCHER

An electro-mechanical Automatic Train Dispatcher is employed on Toronto subway lines to regulate the departure of trains. There are actually nine Automatic Train Dispatchers, one to control train departures from each of the three terminal stations -- Keele, Woodbine and Eglinton -- and six at the University wye, which control the signals allowing trains to leave the three exits from the wye connection between the lines.

The Automatic Train Dispatcher is basically a clock which measures time by the movement of a 22'-4" continuous loop of 35 mm film. One revolution of the loop takes 24 hours, and the film strip moves constantly 24 hours a day, 7 days a week, 52 weeks a year. The train schedules are punched into the film strip in four rows of holes. The distance between any two of these holes is an interval in time corresponding to the same interval of time in the train schedules. The four rows of holes represent Daily, Saturday, Sunday and Holiday schedules. The signal tower operator at St. George Station selects the required schedule.

The loop of film passes between a light source and four photo-electric cells, one for each schedule. As a hole in the film strip passes between the light source and the photo cell, the appropriate track switches and signals are positioned for an outgoing route.

SUBWAY CARS

The Bloor-Danforth line is equipped with 164 new subway cars built by the Canadian Car Fort William Division of Hawker Siddeley Canada Ltd. Prior to the opening of the new subway, most of the cars were tested on the Yonge-University line.

The new cars are generally similar to the 36 light-weight Montreal Locomotive Works cars which were purchased for the University extension of the Yonge Subway. The attractive exterior finish is unpainted brushed aluminum, fluted beneath the windows. Cars of both types may be used to make up a train. The new cars are almost 75 feet long, yet weigh only 56,000 pounds each.

A complete description of these cars appeared in the June, 1965 NEWSLETTER, beginning on page 101.

INTEGRATED SERVICE

For its first six months of operation, service on the Bloor-Danforth line will be fully integrated with trains on the Yonge-University line. This means that passengers may ride downtown or crosstown from any station on the Bloor-Danforth line without changing trains. Similarly, passengers boarding the Yonge-University subway in the downtown district will be able to ride direct to any station on the Bloor-Danforth line.

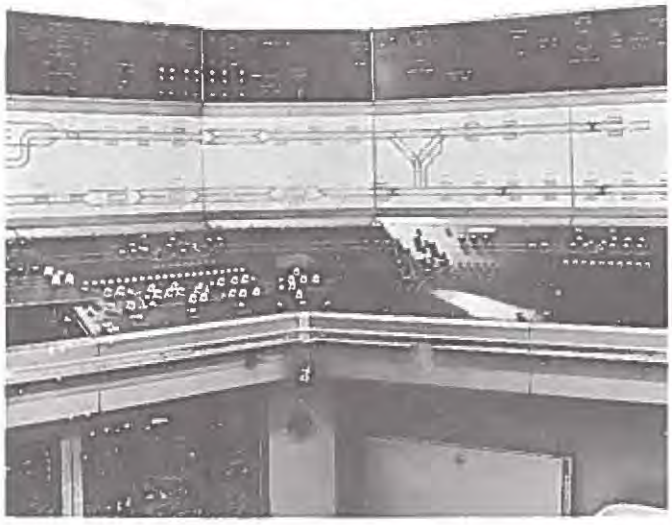
The integrated system is being introduced on a trial basis only, since it involves complex scheduling at the wye connection between the two routes. The big advantage of the integrated service is the direct ride to downtown, but under actual service conditions it may result in unavoidable slowdowns at the junction of the two lines; a breakdown or delay on one route will affect the entire system. Further, high operating costs may outweigh the advantages of the direct ride to downtown.

Following six months of integrated service, the Bloor-Danforth line will be tested as a separate route so that the advantages and disadvantages of the two concepts can be compared.

SURFACE ROUTE CHANGES

With the opening of the Bloor-Danforth Subway, a number of important changes were made to surface trolley and bus routes. As many routes as possible were extended or rerouted to provide direct-to-subway feeder service, and at the same time TTC's policy of replacing streetcar routes as rapid transit lines are completed was continued.

A map and resume of streetcar services in Toronto as of February 26th was published in the January NEWSLETTER, page 14-15.



RIGHT: This control panel, built by General Railway Signal, provides at a glance a complete picture of the subway operations.
/TTC

CHRONOLOGY OF PUBLIC TRANSPORTATION ON BLOOR STREET AND DANFORTH AVENUE

1890 The Toronto Street Railway Company commenced laying track for a horse car line on Bloor Street, working west from Sherbourne Street.

1891 May 29th: Under city ownership, horse car service opened between Sherbourne and Bathurst Street. One-horse, ten-foot-long cars were used, operating on a twenty-minute headway.

1891 Line extended west from Bathurst to Clinton Street.

1891 September: Toronto Railway Company took over street railway under a thirty-year franchise. Within weeks, inaugurated famous "Belt line", cars operating both ways over a loop formed by Bloor, Sherbourne, King and Spadina. "Bloor" cars operated only between Spadina and Clinton.

1891 November: In response to requests for "fast through downtown service", Bloor cars extended to Queen and Yonge via Spadina and Queen Streets.

1893 Line shortened to shuttle service between Spadina and Clinton on Bloor during reconstruction for electric operation.

1893 August 1st: The first electric cars commenced operating on the Bloor route from Dufferin via Bloor, Spadina and Queen to downtown.

1894 Bloor cars extended from Dufferin to Lansdowne.

1912 City of Toronto began building civic street railways to serve areas annexed after 1891 which the TRC refused to serve.

1913 October 30th: Civic Railways "Danforth" line opened between Broadview and Luttrell Avenue.

1915 February 23rd: Civic "Bloor West" line opened -- single track line from Dundas to Quebec Avenue. Later the same year, double track installed.

1917 November: Bloor West line extended over single track from Quebec to Runnymede Road.
No through crosstown service existed at this time as two gaps existed between Sherbourne and Broadview over the Don River, and between Lansdowne and Bloor and Dundas Street, where the GTR and CPR tracks crossed Bloor Street at grade.

1918 December 14th: First of the above gaps closed with the opening of the Prince Edward Viaduct. City laid tracks between Sherbourne and Broadview and Toronto Railway Co. rerouted the Bloor cars to operate via Bloor and the new viaduct between Lansdowne and Broadview. Still no connection between Civic "Danforth" cars and TRC "Bloor" cars. It was necessary for through passengers to change and pay another fare at Broadview Avenue.

1921 September 1st: Toronto Transportation Commission took over operation of both TRC and Civic Railways. One fare system inaugurated with free transfer between former Civic and TRC lines. Work commenced on connecting tracks of both systems. "Bloor West" extended from Runnymede to Jane.

1921 October 3rd: New "Broadview" route inaugurated, operating from Luttrell via Danforth and Broadview, etc., to downtown Toronto.

1921 November: Bloor rush hour service extended from Broadview, east on Danforth to Coxwell Avenue.

1923 July 1st: General rerouting program -- Bloor cars routed from Lansdowne Avenue via Bloor and Danforth to Luttrell -- first crosstown service on this important artery.

1925 August 24th: Last gap closed. Bloor service extended west from Lansdowne through new railway underpasses at St. Helens and Perth Avenue and west to Jane Street.

EXTENSIONS

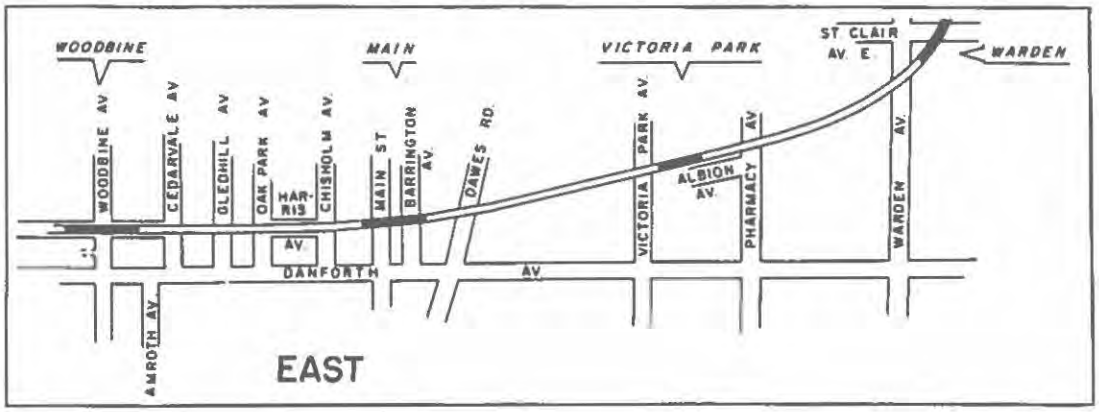
Work is presently well under way on two extensions to the Bloor-Danforth line that will take the subway system into suburban districts for the first time.

From the present westerly terminus at Keele Station, the line will run to Islington Ave., in Etobicoke Township, a distance of 3.49 miles. At the east end, the line is being extended 2.77 miles from Woodbine Station to Warden Avenue and St. Clair Avenue in the Township of Scarborough.

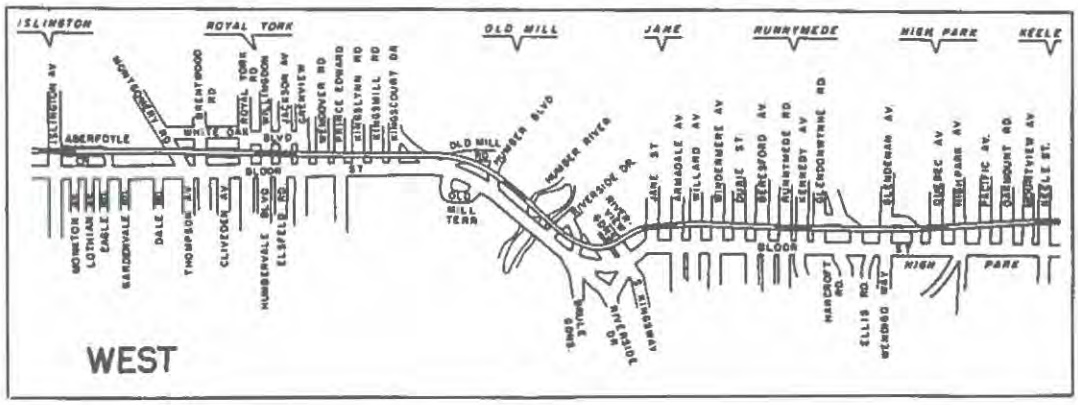
Target date for completion of both extensions is December, 1967, and the estimated total cost of the project is $77 million. When the two additions are complete, the Bloor-Danforth line will be over 14 miles long.

BLOOR-DANFORTH SUBWAY
STATISTICS

Total Length;	8 miles
No. of Stations; (incl. St. George)	20
Max. No. of men employed at peak;	1700
Construction Materials Used:	
Structural steel;	7,875 tons
Reinforcing steel;	46,397 tons
Rail steel - track;	5,322 tons
- 3rd rail;	3,645 tons
- special;	1,000 tons
Cast iron tunnel liners;	13,018 tons
Cement;	141,591 tons
Sand;	347,922 tons
Gravel;	528,626 tons
Total Concrete;	539,415 cu. yds.
Excavation;	3,076,806 cu. yds.
Backfill - granular;	456,750 cu. yds.



BLOOR-DANFORTH SUBWAY EXTENSIONS



The features usually seen here, Traction Topics and Bull Session, will not appear this month, but will return as usual with next month's issue.

Pages 7 and 8 of our Rulebook reproduction are included on the following pages.

84. A train must not start until the proper signal is given.

85. Trains of one schedule may pass trains of another schedule of the same class, and extra trains may pass and run ahead of fourth class and extra trains.

A section must not pass and run ahead of another section of the same schedule without first exchanging train orders, signals and numbers with the section to be passed. The change in sections must be reported to the train dispatcher from the first open train order office.

In all instances in the exchange of train orders, conductors and enginemen must know that the train orders, clearances and instructions exchanged are correctly understood by the other. Before either train proceeds the engineman must read his train orders aloud to the conductor.

85A. (SINGLE TRACK) When a section passes another section of the same schedule, unless authorized by train order, the leading train must notify opposing trains affected until the next open train order office is reached and the train dispatcher advised.

86. Unless otherwise provided, an inferior train must be clear at the time a superior train in the same direction is due to leave the next station in the rear where time is shown, except that in ABS territory it must be clear in sufficient time to avoid displaying other than clear signal indications to a following superior train.

87. (SINGLE TRACK) An inferior train must keep out of the way of and clear opposing superior trains by not less than five minutes. An inferior train failing to clear the main track by the time required must be protected as prescribed by the rules.

Extra trains will be governed by train orders with respect to opposing extra trains. At meeting points between extra trains the train in the inferior time table direction must take the siding unless otherwise provided.

Trains required to take the siding at train order meeting points must pull in when practicable; if necessary to back in the train must be protected as prescribed by the rules.

89. (SINGLE TRACK) When necessary to stop to meet a train, the train holding the main track must stop clear of the track to be used by the other train.

89A. (SINGLE TRACK) A train must not leave any point without knowing positively that the train or trains which it was required to meet or clear at that point have arrived.

90. The conductor of every passenger train must give communicating signal 16 (m) between one and three miles from every station at which it is to meet or wait for a train, clear a superior train, or move through a siding or crossover when so instructed. The engineman must make running test of the brakes as soon as practicable and then give whistle signal 14 (n) in acknowledgement. Should the engineman fail to respond to signal 16 (m) as herein prescribed, action must be taken to stop the train before reaching the point of restriction.

(SINGLE TRACK) On other trains, the engineman must give whistle signal 14 (n) between one and three miles from every station at which it is to meet or wait for a train, or clear an opposing superior train. Should the engineman fail to give whistle signal 14 (n), other members of crew on engine must at once remind him of the requirement.

90A. Unless otherwise directed by special instructions, on freight, mixed and work trains in motion between stations, conductors and enginemen will see that trainmen are at the front and rear of trains in position to observe the safe operation of trains and, when practicable, exchange signals when approaching and passing stations. Approaching junctions, railway crossings at grade, drawbridges, points where trains may be required to stop, where trains are to be met or passed, and at a safe distance before descending heavy grades or at any point where failure of the brakes may be attended with hazard, a trainman must be within convenient access of the emergency valve.

91. Unless some form of block signal system is in operation to the next open train order office or to the station where the preceding and following trains diverge, and except in closing up at stations, the following intervals must be maintained between trains in the same direction:

Between a preceding train and a train operating a snow plow — when all preceding trains have arrived at a station ahead. Train dispatcher will ensure such interval is maintained at open train order offices, but when this cannot be done the snow plow train will be directed by train order to — "run at restricted speed from. . . .". When a snow plow train is delivered a clearance bearing notation "wire failure", or is passed by another train and is unable to obtain information that the preceding train has arrived at a station ahead, it may follow after twenty minutes, running at restricted speed until such advice received;

Between other trains — at least twenty minutes, unless report has been received of the arrival of the preceding train at a station ahead.

Radio may be used by crews to ensure that the prescribed intervals are maintained.

This rule does not relieve employees from protecting their train as required by Rule 99.

EXCEPTION: The interval prescribed in this rule need not be maintained by rail test cars when testing and track inspection cars when operating as trains.

91A. Unless some form of block signal system is in operation to the next open train order office, the train order signal will be used to maintain the interval prescribed by Rule 91, paragraph 3, and must be displayed at Stop promptly after the rear of the train has passed the signal.

92. A train must not leave a station in advance of its schedule leaving time.

93. Within yard limits the main track may be used clearing the time of first and second class trains at the next station where time is shown. Protection against third class, fourth class, extra trains and engines is not required.

Third class, fourth class, extra trains and engines must move within yard limits at restricted speed unless the main track is known to be clear.

NOTE: In ABS territory, indications permitting trains or engines to proceed do NOT relieve third class, fourth class, extra trains and engines from the requirement of moving at restricted speed, except that "Clear Signal" Rule 281 may be accepted as indication that the track is clear, but only to the next signal, or "Block End" sign.

Unless otherwise directed by special instructions, yellow lights must be displayed on yard limit signs from sunset to sunrise.

Except in ABS territory, approach signs will be placed one mile from yard limit signs.

By night, or in foggy or stormy weather, a light must be placed on both ends of unattended cars or dead engines obstructing the main track within yard limits.

(TWO OR MORE TRACKS) Within yard limits, when moving against the current of traffic, all trains and engines must move at restricted speed.

93A. (SINGLE TRACK)

NOTE: This rule must be adopted for the entire system of a railway (Single Track) or not be used at all but will not apply in CTC.

On subdivisions designated in the time table, the outer main track switches of sidings will be considered station limits, and within such limits the main track may be used clearing the time of first and second class trains at the next station where time is shown. Protection against third class, fourth class, extra trains and engines is not required.

Third class, fourth class, extra trains and engines must move within station limits at restricted speed unless the main track is known to be clear.

NOTE: In ABS territory, indications permitting trains or engines to proceed do NOT relieve third class, fourth class, extra trains and engines from the requirement of moving at restricted speed, except that "Clear Signal" Rule 281 may be accepted as indication that the track is clear, but only to the next signal, or "Block End" sign.

94. A train which overtakes another train so disabled that it cannot proceed may pass it, if practicable, and if necessary will assume the schedule and take the train orders of the disabled train, proceed to the next open train order office, and there report to the train dispatcher. The disabled train will assume the right or schedule and take the train orders of the last train with which it has exchanged, and will, when able, proceed to the next open train order office, and there report to the train dispatcher. Trains affected which are met or passed under these circumstances must be notified.

95. Except as provided herein, or by Rules 85 or 94, a train must not display signals for a following section without train order authority.

Two or more sections may be run on the same schedule. Each section has equal time table authority.

In CTC, or in territory where Rule 251 applies over an entire subdivision or to the terminating station of a schedule on a subdivision, a section may be authorized from its initial station by a clearance which must be OK'd by train dispatcher, as: "First 17 Green Signals", "Second 17 Signals Nil", etc.

96. Signals must not be ordered displayed to other than a terminating station of the schedule.

When trains are run as sections of a schedule, a section is responsible for preventing the following section passing it without proper authority.

96A. A regular train must not be created at a station other than its initial station without train order authority. A train which has been detoured must not again take up its own schedule on the same subdivision without train order authority. In such instances the schedule must be annulled between the stations where it has not been fulfilled.

97. Except as provided herein, extra trains must not be run without train order authority.

In CTC, or in territory where Rule 251 applies, extra trains may be authorized by a clearance which must be OK'd by train dispatcher.

In territory specified in the time table, or special instructions, extra trains may be authorized to run with the current of traffic on two or more tracks by a clearance which must be OK'd by train dispatcher.

98. Unless protected by block or interlocking signals, trains and engines must approach the end of two or more tracks, junctions, railway crossings at grade and drawbridges, at restricted speed.

Unless otherwise specified in special instructions, the speed of any train or engine must not exceed thirty-five miles per hour at interlocked railway crossings at grade until the entire movement has passed the crossing.

Unless otherwise specified in special instructions, the speed of any train or engine must not exceed twenty-five miles per hour at interlocked drawbridges until the entire movement has passed the drawbridge.

Trains or engines must stop at the stop signs at non-interlocked railway crossings at grade and at non-interlocked drawbridges and not proceed until the proper signal has been given for that purpose.

99. OUTSIDE ABS TERRITORY

When a train is moving under circumstances in which it may be overtaken by another train, lighted fusees must be dropped off at proper intervals and such other action taken as may be necessary to ensure full protection.

When a train stops under circumstances in which it may be overtaken by another train, a flagman must immediately go back a sufficient distance to ensure full protection:

In day time, if there is no down grade toward train within one mile of its rear and there is a clear view of its rear of 2000 yards from an approaching train ..... at least 1000 yards;

At other times and places, if there is no down grade toward train within one mile of its rear ..... at least 1500 yards;

If there is a down grade toward train within one mile of its rear ..... at least 2000 yards.

The flagman must, after going back a sufficient distance from the train to ensure full protection, take up a position where there will be an unobstructed view of him from an approaching train of, if possible, 500 yards, first placing torpedoes not more than 100 nor less than 50 yards apart to cause two explosions at least 200 yards beyond such position. If necessary to go beyond the required distance, he will leave the torpedoes at the required distance as an indication of the location of his train, but must, under such conditions, also place torpedoes at the point at which an approaching train is flagged. Torpedoes so placed must not be removed.

The front of a train must be protected in the same manner when necessary.

WITHIN ABS TERRITORY

When a train stops under circumstances in which it may be overtaken by another train, with the protection of at least two block signals to the rear, protection against following trains will have been afforded when flagman has taken up a position on the ground at a point from which stop signals can be plainly seen by an approaching train from a distance of at least 300 yards from the train being protected.

When necessary to protect against trains moving in the opposite direction, flag protection prescribed for OUTSIDE ABS TERRITORY must be provided, except that on single track where there are at least two block signals to the front governing opposing trains, protection will have been afforded a standing train when flagman has taken up a position on the ground at a point from which stop signals can be plainly seen by an approaching train from a distance of at least 300 yards from the train being protected.

BOTH OUTSIDE AND WITHIN ABS TERRITORY

When a train stops under circumstances in which it may be overtaken by another train, the engineman will immediately signal the flagman to protect the rear. When ready to proceed he will recall the flagman.

After taking up position at the distance required, flagman must remain at that point until recalled or relieved and safety of the train will permit. Flagman must always on the approach of a train display stop signals.

If recalled before another train arrives, he must leave a fusee burning red at the point from which he returns, and while returning to his train, a fusee burning red must be placed at such points or times as may be necessary to ensure full protection. A fusee burning red must be left at the point from which the train moves.

When curvature, weather or other conditions require, or when snow plows or flangers may be running, extra precaution must be taken.

Flagmen must each be equipped for day time with

A red flag on a staff,
At least eight torpedoes and
Seven red fusees; and

For night time and when weather or other conditions obscure day signals,

A white light,
A supply of matches,
At least eight torpedoes and
Seven red fusees.

A train should not stop between stations at a place where the view from following trains is obstructed if it can be avoided.

Conductors and enginemen are responsible for the protection of their trains.

100. When providing protection required by Rule 99 and it is necessary to hold trains or advise them of specific movements of the train being protected, flagman should, when practicable, be furnished with written flagging instructions to be shown to the engineman of trains affected.

101. Trains and engines must be fully protected against any known condition, not covered by the rules, which interferes with their safe passage.

When for any reason a portion of a train is left on the main track every precaution must be taken to protect the remaining portion against the returning movement. In the absence of conductor at head-end of train when movement is commenced the engineman will arrange for the necessary protection. Torpedoes must be placed a sufficient distance in advance and in addition by night or when weather or other conditions require, a white light must be prominently displayed on the front of the leading car.

The remaining portion must not be moved nor passed until the engine returns, unless the movement is adequately protected.

102. When a train is disabled, or stopped suddenly by an emergency application of the air brakes or other causes, a lighted red fusee must immediately be displayed on adjacent tracks at front and rear of train. Adjacent tracks as well as tracks of other railways that are liable to be obstructed must at once be protected in both directions as prescribed by Rule 99 for OUTSIDE ABS TERRITORY until it is known such tracks are safe and clear for the movement of trains.

103. When cars are pushed by an engine, except when switching or making up trains in yards, and even then when conditions require, a member of the crew must be on the leading car and in a position from which signals necessary to the movement can be properly given.

When cars not headed by an engine are passing along a public road or over a public crossing at grade which is not adequately protected by gates or otherwise, a member of the crew must be on the leading car to warn persons standing on, or crossing, or about to cross the track.

No part of a car or engine may be allowed to occupy any part of a public crossing at grade for a longer period than five minutes, and a public crossing at grade must not be obstructed by switching operations for more than five minutes at a time.

When necessary to cut trains at public crossings at grade, except where a member of the crew is to protect the crossing, or where other protection is provided, cars or engines must not be left standing within 100 feet of the travelled portion of the public road.

Where special instructions require that switching movements over certain public crossings at grade be protected by a member of the crew, such protection must be provided by a member of the crew from a point on the ground at the crossing until the crossing is fully occupied.

When a train or engine passes over any public crossing at grade protected by automatic signals or automatic gates, it will be necessary before making a reverse movement over the crossing for a member of the crew to protect the same.

Before making switching movements over unprotected public crossings at grade where the engineman's view of the crossing is obscured, arrangements must be made for a member of the crew to be in position to observe the crossing and give signals to the engineman as necessary.

At public crossings at grade at which there are automatic warning devices to indicate the approach of trains or engines on the main track, movements over such crossings on other than main tracks, must not, unless otherwise provided, exceed ten miles per hour from 100 feet distant until the engine or leading car has passed over the crossing.

At public crossings at grade referred to in time table instructions, where protection devices are required to be operated by use of push buttons or other appliances, movements must not obstruct the crossing until the protection devices have been operating for at least twenty seconds.

PRESIDENT'S REPORT FOR 1965

The year 1965 will probably be recorded as one of unrest and upset for the Upper Canada Railway Society. For the first time, a Directorate comprising twelve persons was elected at the Annual Meeting one year ago by virtue of a special amendment to the Society's By-laws and Regulations. It had been felt by the 1964 Directorate that the affairs of the Society were becoming sufficiently voluminous and diverse as to warrant an expansion of the Directorate from the previous total of nine persons. It was hoped that the proliferating duties and responsibilities would thus be spread over a greater number of hands, lightening the burden for all concerned.

The situation at the end of the year, unfortunately, indicated that this intention had been largely frustrated. Of the twelve persons elected to the Directorate on January 15th, 1965, only seven remained as of December 31st. A rash of resignations had plagued the Directorate throughout the course of the year; some of these were for legitimate reasons, others were not.

While most of these resigning Directors were replaced, the essential tasks of running the affairs of the group were largely concentrated in the hands of the originally elected Directors, since they were basically more familiar with these affairs. The principle of sharing the load was therefore frustrated and the situation of a few persons doing the bulk of the work remains with the Society.

I am stressing this matter at this time in the hope that those who are voting in the election for the 1966 Directorate to be held a few minutes hence will have as a paramount thought the installation of a Board of Directors comprised of persons who are strong supporters of the Society and who may be counted upon to assume their fair share of the responsibilities which go with Directorship. While the Nominating Committee has worked diligently to make available a slate of twelve persons who, in the Committee's estimation, have the necessary stuff of which Directors are made, no less an onus is upon the electorate to weigh the merits of the full slate of nominees at the time of the election. It is my sincere hope that the instability of 1965 will be replaced by a genuine atmosphere of co-operation and progress in 1966.

In spite of the unsettled state of the Directorate, substantial progress was made in certain areas during 1965. Worthy of mention in this respect are the preparation of several Bulletins, the improvement made in the on-time performance of the Newsletter and the features introduced under Jim Brown's editorship, the progress made with the Society's library and the return to "railfan scaled" fantrips. I am sure that even greater strides can be made during the coming year with a strong and conscientious Directorate in office backed up by equally diligent Committees.

After an 8-month tenure as President of the Society I regret the necessity of relinquishing the gavel. However, my removal to a residence location outside of Metropolitan Toronto indicates that another person closer to the scene of Society operations should logically carry on. I should like to express appreciation to my fellow Directors and the Committee Chairmen for the way in which they have carried on the business of the Society during the past year, especially in the latter portion when I was not in a position to be in close daily touch with the situation. I would hope that an ultimate return to the immediate Toronto area will permit me to take again a more active part in the affairs of the Society.

SIGNED

Stuart L Westland, President

REPORT OF THE RECORDING SECRETARY AND CORRESPONDING SECRETARY FOR 1965

ACTIVITIES: 1965 was a year in which every effort was made to provide varied activities and entertainment to please all interests present in the Society. Ten General meetings were held in Room 64 of the Royal Ontario Museum and attendance at all of the meetings remained at a fairly high level. We were treated to: six illustrated lectures covering such diverse subjects as the story of the OERHA, and the Northern Alberta Railway, two shows at which members showed slides of varied subjects, the Annual Auction, a panel discussion on museums, and the Society's first Photo Contest (it is hoped that this event will be repeated). Credit is due the hard working members of the Entertainment Committee for providing such interesting fare.

The two summer outdoor meetings consisted of a last ride aboard Peter Witt car #2766 (July), including a visit to the now abandoned Ferry Loop, and in August some 75 members availed themselves of tours of CN's Toronto Yard. Three tours consisting of 25 people each were operated on as many Friday evenings in late August and early September.

In October 50 members from Toronto and Hamilton toured the Hamilton works of National Steel Car Corporation. November 6th was the date of the Society's Annual Banquet, at which 76 members and guests heard four distinguished speakers from the Toronto Transit Commission, Messrs. Bardsley, Harvey, Miles, and Ledsham, discuss the intricacies of the building and operation of the Bloor-Danforth Subway.

DIRECTORS' MEETINGS	1965	1964	1963
Number Held	13	12	14
Total Attendance	114	92	102
Average Attendance	10	8	7

All Directors' meetings, with the exception of the first, were held in the private car "Nova Scotia". Five Directors resigned at various times during the year; four members were appointed to fill vacancies.

EXCURSIONS: The UCRS enjoyed an active year in the field of excursions, operating some 9 trips, 4½ behind steam and 4½ behind diesels (the Haliburton trip was combined steam-diesel) and three streetcar trips within Metro Toronto. Of particular interest was the special movement behind #6218 over the Toronto Access Line. The Society's first all-diesel weekend in October, utilizing special passenger power of CP and CN, proved to be an outstanding success (but not financially). "Nova Scotia" was used on the Toronto Access Line trip in January, and the trip to Kingston in June. Of note was the use of special CN passenger equipment -- 45-seat chair car and Skyview observation lounge sleeping car -- on the Society's Fall weekend trips.

PUBLICATIONS: Twelve issues of the Newsletter, totalling over 200 pages, were published. In addition the Society belatedly issued one Bulletin, "Steel Cars of the Grand River-Lake Erie and Northern" by J. W. Hood.

Work has also continued in the maintenance of preserved "6213", "103", and "Nova Scotia", by members of the various committees concerned.

Respectfully submitted,

SIGNED

M. B. Andrews,
Recording Secretary

SIGNED

R. D. McMann,
Corresponding Secretary