Newsletter

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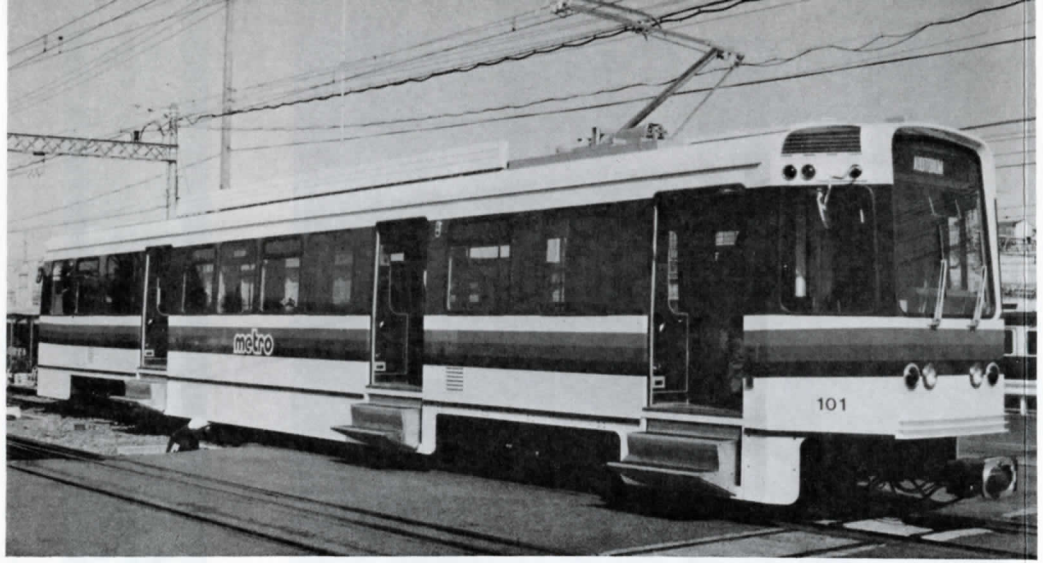
BEETON, DRUMBO AND FOREST ABANDONMENTS

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



NFTA 101, Buffalo's first LRV, in Yokohoma, Japan, before leaving the Tokyu Car Co. plant. The colour scheme is basically white, with chocolate brown, orange, and yellow striping, and brown along the windows. Note the retractable steps: the cars will provide low level boarding on the transit mall, high level in the subway. The 67-foot, double ended LRV's will be numbered 101-125. The destination sign reads "Auditorium", for the southern terminal of the Main St. line at Memorial Auditorium in downtown Buffalo. --photo courtesy NFTA

The new Speno rail grinding train visited Toronto recently. It is pictured eastbound on CN's Kingston Sub. on Apr. 2, 1983, approaching Main St.

--photo by Ted Wickson

ONR's four new SD40-2 locomotives pose outside the railway's North Bay shops shortly after arriving from GMD. --ONR photo

A CP Rail freight train passes a hotbox detector installation. The triple zero indication on the display board tells that all is well, at least in respect of the absence of overheated or dragging equipment.

--CP Rail photo

Ontario Northland

FREIGHT CAR STRATEGY

by M.C. Hicks, Senior Director of Freight Marketing, ONR

Ontario Northland's carload freight business consists primarily of bulk natural commodities such as ores, concentrates, newsprint, pulpwood, lumber and acid, to name a few. Ontario Northland is also primarily a shipper of goods, sending about three loaded cars of material out of its territory for every loaded car it receives.

As a participant in the continent-wide rail network ONR has a responsibility to contribute to the provision of rolling stock in the form of box cars, gondola cars, flat cars, ore carriers, etc. It is a challenge to determine the right number of cars for a railway to have. This equipment can earn money. When rolling stock is off Ontario Northland's line, the other railways must pay for the use of the cars. When ONR's are on its own lines the railway does not receive any money, but if that equipment was replaced with a foreign piece of equipment ONR must then pay the other railway. If ONR were to have too many cars, they would be lying around unused and ONR would be losing the value of the invested capital.

But to have an insufficient number of cars also creates headaches. If ONR is dependent on others to provide cars it loses control and customers suffer. The railway is also inundated with foreign cars for which it must pay. It further loses leverage at the bargaining table when efforts are made to negotiate revenue distributions with other railways for haulage of material because ONR would be at their mercy for the provision of the equipment.

The ever-changing complexion of customer needs plays a part also in determining the numbers and types of cars needed. Current service demands at Kidd Creek Mines Ltd. near Timmins, for instance, where they are changing their shipping to copper metals, which require box cars, from the former copper concentrates which required gondola cars, must be considered. Forest products producers such as Abitibi Price are changing shipping methodologies and requiring different types of apparatus.

The responsibility for determining and recommending the most prudent inventory of revenue rolling stock lies with the Freight Marketing group. They must analyze customers' needs now and in the future, determine revenue expectations and profitability factors, shipping patterns, etc., and consult heavily with Rail Service personnel for their input to determine just how customer service needs and fiscal concerns can best be satisfied over a long period.

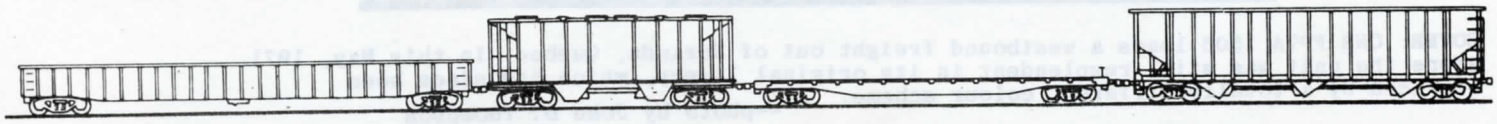
When rolling stock is procured, however, the responsibility shifts appreciably to Rail Services. While Freight Marketing has a continuing responsibility to ensure that customers fill the cars, Train Operations, for instance, must keep them rolling. An idle car loses money. Equipment Maintenance must perform efficient routine and repair activity. Again, if cars are out of service they are losing money and just as importantly, if the car breaks down on a foreign railroad's line ONR is charged for the associated repairs. The Car Service Department plays an important part in monitoring the activities of cars and identifying or correcting patterns to maximize use and revenue.

For many reasons Ontario Northland's provision of its rolling stock equipment fell off during the 1970's, but in 1980 a plan was initiated which saw the railway starting to catch up in providing its fair share of the nationwide network's fleet of railway equipment. In that year 100 new box cars, equipped with the sophistications required for the best in newsprint service, were purchased and are now in Abitibi Price's Iroquois Falls service. Seventy-five other box cars to carry copper and zinc metal were leased and are now serving Kidd Creek Mines. Further procurements for 1982 will probably result in 100 more standard box cars and, depending on the results of a current market survey, the provision also of some double door box cars for the lumber market. Future years' needs are also being studied.

It is also anticipated that ONR will continue to mix the purchase of equipment with the leasing of equipment in such manner that it hedges appropriately against unforeseen market fluctuations. At the same time there are many pieces of older rolling stock dating back to as early as 1947 manufacture which no longer suit customer needs and which are now being disposed of.

The effort now and in the future is and will be to make sure that equipment is adequate and contemporary. The aim is that the population of Northeastern Ontario and Ontario Northland's employees can watch trains on the railway's tracks carry a fair share of Ontario Northland cars. One cannot underplay the role, however, of those employees who are responsible for keeping the cars moving and in good condition and earning revenue.

--ONR "Chevron"



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What now for the Trolley Coach?

The fortunes of the trolley coach, or "trackless trolley", have been rather meteoric through the years. A hybrid born of a marriage of electric railway and automotive technology, it was seen as a logical replacement for street railway operation on many transit properties during the 1930's and again during the immediate post-war period. This was particularly true where track required replacement but power conversion and distribution facilities still had a substantial period of useful life. Later, led by the TTC's decision to renew its 153-vehicle fleet using recycled electrical components, there was a more limited renewal of interest in the trolley coach, essentially confined to the few systems which had retained it to that time, but no new installations occurred.

Now, with faith in the trolley coach restated in Edmonton, Vancouver, Seattle and Mexico City, and with a recent consultant's study recommending that Winnipeg return to the mode after having dispensed with it (see article in this issue), a shock wave has hit the transit industry. The TTC, leader in the movement back to the vehicle that was extolled in 1940's advertising as providing "the best of both worlds", has evidently decided to jump off the bandwagon and tear down the overhead beginning in 1989. The decision comes only two years after a now aborted plan to expand the trolley coach system to 10 diesel bus routes (based on intensive off-peak usage of the present T.C. fleet with diesels supplementing in the peaks). This editorial is not intended to comment critically on the decision other than to wonder if the relevant factors in Toronto and Winnipeg are really that different, and to observe that this latest development simply reinforces the "peaks and hollows" history of the T.C. as a transit vehicle. Also, if Toronto goes, can Hamilton long survive?

--S.I.W.

--The Editor is pleased to announce that arrangements have been made with the Forest City Railroad Club of London, Ont. for the use in the UCRS Newsletter of material appearing in that group's publication, TEMPO JR. Appreciation is extended to Don McQueen, member of both organizations, for consummating this understanding. The Editor of TEMPO JR. is, of course, reciprocally welcome to use material from the Newsletter.

--Outspoken but perceptive Toronto Alderman John Sewell, in a communication placed recently before City Council in connection with the redevelopment of the downtown railway yards, stated: "There is a substantial question as to how great a return on investment the owners should be permitted on these lands. Both principal owners are railway companies that are more interested in the development business than in the railway business."

--Note K was inadvertently omitted from the equipment roster of the Vintage Locomotive Society appearing on Page 5 of the April issue of the Newsletter. To make the roster complete, please add the following: (K)--Built as Grand Trunk Ry. of Canada 30-ton steel underframe box car 19552; renumbered CNR 342252 April 4, 1929 (Port Huron, Mich.) as box car, and subsequently to 68593 as foreman's car (Transcona), Dec. 5, 1941; donated to VLS, Jan. 1978.

--In the northern part of Bucks County in Pennsylvania, there is a community called Richlandtown which at times in its history found itself at the end of a trolley line and also on the route of a steam railroad, both of which are long gone. Just outside of this town, a housing subdivision called Richland Station has been built quite close to the former right-of-way of the railroad. The five streets in the subdivision have been given these unique names: Caboose Drive, Whistle Stop Lane, Depot Lane, Junction Lane, and Turntable Circle.

--Dave Stalford

COVER: ONR FP7A 1503 leads a westbound freight out of Noranda, Quebec. In this May, 1971 scene the unit was still resplendent in its original livery, which has since been replaced by a totally different colour scheme.

--photo by John D. Thompson

OBITUARY -- MR. JAMES H. ALLEN UCRS NO. 2

It is with much regret that we report the sudden death of James Hammond Allen on January 6, 1983 at the age of 66. He was co-founder in 1933 of the small organization which grew into the Upper Canada Railway Society.

As a teenager he collaborated with his chum and next door neighbour Douglas W. Knowles in calling a meeting of railway enthusiasts whose names had been obtained from the pages of Railroad Stories (later Railroad Magazine). Fourteen young men attended the first meeting, held in the front room of 194 Grenadier Road on an unrecorded date. From this first meeting sprang a small informal group, without officers or dues, which met every second Friday evening at the homes of various members.

The name Toronto Society of Locomotive Photographers was chosen, soon to be changed to Toronto Society of Railway Photographers, but the group was known conversationally as "The Railway Club".

The two young co-founders soon had gainful employment and other interests, and thus had much less time to devote to the fledgling organization, which was then carried forward under the inspired and energetic guidance of John W. Griffin, aided by several other members. The group in 1940 became the autonomous Toronto Chapter of the then unincorporated Canadian Railroad Historical Association of Montreal, with 14 members. When CRHA incorporated, it was of course not permitted to have autonomous chapters. Thus the Toronto group was reorganized in October 1941 as the Upper Canada Railway Society, with Albert S. Olver as first President.

Jim Allen was born in Rochester, N.Y. and was brought to Toronto by his parents when he was small. He attended Howard School and Parkdale Collegiate, becoming a commercial traveller for the Taylor Instrument Co. For a considerable period he represented his employer in north-western Ontario and the prairie provinces.

He was particularly interested in Canadian and north-eastern U.S. steam railroads, and a 1934 visit to the World's Fair in Chicago with Doug Knowles, which included official visits to the various rail facilities, kindled a continuing interest in Chicago area lines.

He had a happy marriage to Doris Munro from Taber, Alberta, who predeceased him in April, 1980.

We extend our very sincere condolences to his sister Jean Chapman of Victoria, B.C.

--John D. Knowles

TTC Notes

• On March 22 the Commission adopted a staff report recommending a package of traffic measures designed to expedite service on the 501 (Queen) street car line. These include "reserved lanes" between University Ave. and Sherbourne St. ("reserved paved trackage" might be a more appropriate term), left turn prohibitions over the same distance (except for street cars) and at certain intersections on the other portions of the route, an expanded auto tow-away zone to encompass Queen St. westerly to Spadina Ave., a 3 P.M. commencement time for the enlarged tow-away zone in the P.M. rush period, and a review of peak hour traffic signal operations along Queen St. such as to favour street car movement. The report points out that the bunching of cars on Route 501 has been a continuing problem, with automobile traffic congestion in the central core being a major cause. The Queen carline, with a two minute, 30 second peak headway, has the highest daily ridership of any surface route in the TTC system and is also subject to the largest amount of delay time. Recent peak hour cordon counts on Queen St. (at Simcoe and Jarvis Sts.) show that street cars, including Routes 501 and 502, constitute 10% of the vehicles moving on the street, but carry more than 70% of the persons riding past these cordon points. The report concludes that it is only logical that measures should be adopted to assist the movement of the majority. In adopting the report, the Commission has requested the City and Metropolitan Toronto to institute the recommended transit priority strategies on Route 501. Responses from the municipalities had not been made at time of writing.

• The City of Toronto has decided to commission a consultant's study of what is being referred to as an LRT (not street car) line on Bay St. between Bloor St. (Bay Station) and Union Station. This comes just after the 20th anniversary of the removal of rail operation from the street. The City's primary motive is to delay, or to head off permanently, the Union-Donlands "relief" rapid transit line which, City Council fears, will lead to renewed downtown development pressures. The City has previously gone on record as urging an LRT line on Spadina Ave. (an idea which has been around since about 1971). A report has recently been prepared by the IBI Group on this line, the study having been sponsored by CN, the Campeau Corporation, Harbourfront Corp. and the Toronto Harbour Commissioners, all major landowners at the lower end of Spadina Ave. and along the water-front. This study concludes that an LRT line down Spadina Ave. from Spadina Station, then easterly along Queen's Quay and northerly on Bay St. to Union Station is "feasible and desirable" in terms of cost and levels of patronage. The line would operate on a central reservation where possible, with priority treatment at signalized intersections.

The Bay LRT would continue northerly from a connection with the Spadina LRT at Union Station and might be, at least in part, through routed with it. The study of the Bay line would examine the effects of, and on, vehicular traffic on the street, particularly on the section south of Queen St., and will consider various alternatives for a terminal arrangement at the north end, including a short section of trolley subway to connect with Bay Station. It would also examine possibilities for looping at Union Station and the degree to which a reserved right-of-way could be established on the line portion of the route. The possibility of special passenger loading facilities along the line would also be studied, and car equipment requirements would be examined in detail.

It would seem probable that the IBI Group will be chosen as the consultant, in view of its having prepared the Spadina LRT study. The City will set up a staff steering group to direct the study, and hopes to secure the participation of TTC and Metropolitan Toronto officials in the steering

group, but the degree of willingness of the latter agencies to participate actively in the study, given their position favouring the "relief" line, is not known at present.

• SURFACE VEHICLE FLEET MIX STUDY; THE APPARENT END OF TROLLEY COACHES--A report placed before, and unanimously adopted by, the Commission on April 19th sets out a general future strategy for surface vehicle purchases and operation on the TTC surface system. The report embodies a blend of surprises and the expected, as well as good news and bad news as far as most transit fans are concerned. The following text is a close quote of the covering summary report.

Over the past year, TTC staff have been examining a number of aspects of the Commission's surface fleet operations, including feasibility studies regarding conversion of downtown diesel bus routes to trolley coaches; operational testing of articulated diesel buses and a prototype ALRV; and an evaluation of replacement vehicles for the PCC car fleet. The diversity and importance of these independent efforts have underscored the need for a co-ordinated investigation of the longer term surface vehicle fleet to ensure that future modal choice decisions are made with due consideration for the entire TTC operation, rather than on an ad hoc basis. The study was initiated to provide long-term policy direction regarding the appropriate composition of the Commission's surface vehicle fleet.

The analysis and evaluation focussed on the major decisions that the TTC must make regarding its future fleet mix in terms of type of vehicle (street car, trolley coach, diesel bus) and vehicle size. Evaluation criteria were derived from the following set of considerations:

--Total costs (unsubsidized operating and capital); passenger considerations (level and quality of service); operating consdierations (such as future operating flexibility; special garaging requirements); environmental concerns (air and noise pollution; visual intrusion).

The report states that total cost tends to be the principal evaluation criterion against which other factors are traded off. In addition, the determination of costs will be highly dependent upon the route circumstances and service options involved. For these reasons, a major portion of the study was dedicated to the analysis of costs. Diesel buses were found to be the most cost-effective mode over a wide range of operating circumstances, and offer the greatest flexibility in terms of tailoring services to meet demand. Consequently, diesel buses will continue to be the predominant vehicle type over the longer term. However, street cars become cost-effective relative to diesel buses on high demand routes at about 3600 passengers per hour in the peak direction. Street cars have a number of inherent advantages over diesel buses which should justify some reasonable premium. These include a higher quality ride; stronger transit image; and a greater potential for upgrading line capacity. Thus, when service demand on a bus route is expected to exceed 3000 passengers per hour, the TTC should consider the option of converting that route to street car service. At this high level of demand, total costs of street car operations should be reasonably close to that of diesel buses and may therefore be the preferred mode. (It is to be noted that the foregoing remarks relative to street car operation constitute direct quotations from the report, and are not in any way embellished for readers of this article.)

While passenger demand is well below the 3000 p.p.h. level on many of the current street car routes, track and overhead are already in place. Consequently, the economic advantage of diesel buses will generally not be sufficient to warrant conversion (Kingston Road (Downtowner and Tripper), which is due for major track replacement, and Long Branch, which is not as well utilized as other street car routes, should be investigated in more detail. (The study seems not to have heeded the fact that most of the track on 507-Long Branch has been reconstructed in very recent years).

Trolley coaches, on the other hand, are considerably more expensive to operate than diesel buses, even when the overhead wire and other infrastructure is already in place and are excluded from the cost comparison. The possible ride quality and environmental considerations do not offer sufficient benefit to offset the much higher purchase price of the vehicles and reduction in operating flexibility, relative to diesel buses. Even a large (and unanticipated) growth in the differential between diesel fuel and electricity prices is not likely to change this conclusion. (The report suggests that the T.C. system should be phased out by 1989, when the current fleet of Flyers is due for replacement, and lists the perceived disadvantages of trolley coaches as follows: --The costs of operation with the purchase of new vehicles, run about 17% higher than those of diesel buses; passengers are discommoded because of slower running times and greater susceptibility of "fixed wire" vehicles to delays; inflexibility when emergency reroutings are required; visual pollution from overhead.

A separate report, also adopted by the Commission on April 19th, officially laid to rest the Transit Electrification Plan of 1981 and any hope of conversion to trolley coaches of present diesel bus routes).

Articulated vehicles offer a significant potential for more efficient operations on high demand routes due to their 50% additional capacity. In addition, higher capacity vehicles can be used to increase line capacity without reducing headways to operationally difficult levels. This advantage will become more pronounced if road congestion worsens as anticipated. The number of diesel bus routes which are candidates for articulated bus operation will depend largely upon the service standards adopted for these vehicles. Articulated vehicles are less advantageous on low demand routes, since the 50% increase in already wide headways implied by full 2:3 substitution could represent a significant reduction in level of service. Due to close peak and off-peak headways and limited branching, street car routes have an even greater potential for high capacity vehicles than diesel bus routes. Several current and proposed future street car routes are potential candidates for ALRV operation. Since the aging PCC fleet will soon be retired, there will be an opportunity to incorporate ALRV's into the street car fleet as replacement vehicles in the near future. It should be noted that new track switches, longer safety islands and other infrastructure modifications will be required to accommodate ALRV's, at a cost of up to $5 million. (The matter of safety islands, of course, is a major consideration only on St. Clair Ave.).

Small diesel buses (30-foot or similar size) can be substituted on a 1:1 basis where 40-foot buses provide excess capacity as a result of applying policy headways. However, the incidence of leaving passengers at stops due to the inability of these smaller vehicles to handle surge loads will likely increase as ridership grows. In addition, the limited scale of operations at any one location may offset much of the small cost savings which are realized due to lower vehicle price and energy consumption. Expansion of the 30-foot diesel bus fleet is therefore not warranted at this time.

As arising from the conclusions summarized in the foregoing, the report makes the following seven general policy recommendations:
1. That the report serve as the basis for more specific future decisions regarding the long term surface vehicle fleet mix.
2 That the option of acquiring 60-foot articulated diesel buses be considered in future vehicle orders as part of the diesel bus fleet.
3. That the bulk of the street car network (Kingston Road and Long Branch will be reviewed in more detail) continue to be operated, and that consideration be given to expanding the street car network to bus routes whenever route service demand is expected to exceed 3000 passengers per hour in the peak direction.
4. That, subject to further detailed investigation as outlined in the following recommendation, the inclusion of articulated light rail vehicles be considered as one option for a major portion of the required replacement order for the remaining PCC fleet.
5. That staff be authorized to report back to the Commission by early summer regarding the feasibility and detailed costs of system modifications (switches, safetv islands, etc.) required to incorporate ALRV's into the fleet, with the specific routes and exact number of cars required if ALRV's were to be ordered; and including a detailed cost comparison (capital and operating) between ALRV and CLRV operation on those specific routes.
6. That consideration be given to elimination of the existing trolley coach network when the current trolley coach fleet requires replacement in 1989.
7. That the small (30-foot or similar size) diesel bus fleet not be expanded at this time.

• Ditch lights have begun appearing on Yonge subway trains, although not on the Gloucester cars. Nor have the twin headlights been observed on H5 cars on either line.
• The newly renovated stations on the Yonge Subway--Davisville, College, Dundas and Queen--now feature large advertisements along the walls. At time of writing the largest posters, which are virtually mural size, had yet to be installed at some locations. This is the first time that such extensive advertising has been applied to the walls of the TTC's rather sterile stations.

• In the final hours of operation on Monday, March 21, the CLRV fleet passed the milestone of 10 million fleet miles in revenue service or an average of just over 51,000 miles per car. Maximum car mileage was 75,288 (car 4005) and minimum was 21,491 (car 4143). In addition the following non-revenue miles were accumulated: six SIG cars pre-revenue: 15,500; 190 HSCL cars pre-revenue: 8000 estimated; 196 cars post-revenue tests:3500 est. 196 cars post-revenue retrofits: 10,000 est., or an additional 37,000 miles.

As of the same date. the remaining 172 PCC cars (with approximately 145 active) had accumulated 177,560,000 miles or an average of over 1,000,000 miles per car. The three Witt cars had accumulated 61,363 miles since commencing tour service in 1973-75.

--R.F. Corley

• Despite the threatened (but still unscheduled) end to their careers, PCC cars are still being repainted in the traditional red and cream; however, subtle changes are creeping in--A-7 class 4487 has appeared with the two black stripes below the windows missing.

PORT STANLEY TERMINAL RAILWAY UPDATE--Approximately 350 shares have been sold in this venture as of April 13, according to organizer Don Broadbear of London. About 30 people met at Broadbear's home in London to buy $20 shares in Port Stanley Terminal Rail Inc. Don and his partners hope to have passengers lining up for a scenic 10 kilometre (6.2 mile) ride between Port Stanley and Union on the CN Talbot Sub. by this summer. He wants to sell 1000 shares, and they are available to anyone interested in the project. Broadbear, a Canadian Pacific engineer, is determined to see the railway get off the ground. If the operating capital cannot be raised by selling shares, a bank loan will be taken out and he will use his railroad in Pinafore Park, St. Thomas, as collateral. Don has owned and operated the Pinafore Park Ry. for more than 20 years and is sure that the Port Stanley to Union run will work. Eventually, the company wants to refurbish the Talbot Sub. as far as St. Thomas and to interchange freight with the carriers there. For further information, interested parties may contact Don Broadbear at his home address, 477 Charlotte St., London, Ont. N5W 4A5.

--Mike Lindsay

--CPR coach 54 (Harlan and Hollingworth, Wilmington, Delaware, 1884), believed to be the oldest surviving passenger car built for the railway, has been rescued for preservation by a dedicated group of CP Rail employees and the Alberta Pioneer Railway Association. After serving the CPR for 31 years, No. 54 was sold on April 28, 1913 to the Province of Alberta and was converted to a mine rescue car. In the middle to late 1930's (exact year not known) the car was sold for scrap; however it was converted into a mine assay office near Blairmore in the Crowsnest Pass and the carbody was covered with stucco. After the mine closed in 1957, the car was forgotten for many years until two local CPR employees took an interest in it, removed the stucco cladding, and decided that the car was worthy of a resoration effort. Coincidentally highway construction was scheduled through the area, and the relocation of car 54 was immediately required to avoid its demolition. The assistance of the APRA and the Cranbrook Museum was enlisted and various other CPR personnel joined the effort, with the result that 54 has been moved to a temporary site in Calgary's Heritage Park. More than $5000 has already been expended in moving the car, and another $50,000 to $60,000, it is estimated, will have to be spent to achieve full restoration. The APRA is currently seeking funding for the purpose and is also endeavouring to find a permanent home for No. 54.

--CP Rail News via E. Ozorak

Hotbox Detectors

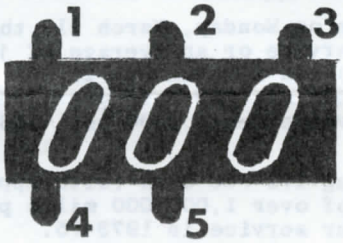
CP Rail intends to speed up its hot box detector program in Ontario and will install 18 new detectors valued at more than $3.6 million, and relocate three others, along its lines in the Province during 1983. The railway had previously planned to install only eight new detectors in Ontario this year. The now scheduled installations will bring the number of these early warning devices in service on CP Rail lines across the province to 67.

Hot boxes are caused by wheel bearing failure which produces heat that can weaken the steel end of a car axle, causing it to break under the weight of the car. Bearing failure results from lubrication breakdown which can be caused by an imbalanced load or damaged axle.

CP Rail's hot box detector installations have added devices which also alert the train crews of dragging equipment, sticking brakes or overheating wheels. The detectors involve trackside heat sensors which detect sticking brakes or hot boxes, while a simple vertical bar, set in the middle of the track and extending above the height of the rails, sets off a signal when struck by dragging equipment. The temperature difference between the outside air and heat radiation in the area of journal boxes and wheel centres is measured. Sources of heat which may trigger detector alarms are overheated journals, overheated engine suspension bearings, sticking or dragging brakes, or set hand brakes. Engine crews are instructed to avoid, insofar as possible, triggering a signal from a detector by the prolonged use of train brakes when approaching a detector location or by the application of brakes while any portion of the train is passing such location.

The detector display board consists of a three-digit numerical indication (see photo on Page 2), four alarm lights and a system operational light. These lights, mounted three on top, and two on the bottom of the display board, provide the following indications as keyed to the diagram hereunder:

1--Alarm light (flashing or steady) indicating defect on left side of train.
2--Multiple alarm light (flashing or steady) indicating that there is more than one defect on the same side of train or more than one dragging equipment defect.
3--Alarm light (flashing or steady) indicating defect on right side of train.
4--Alarm light (flashing or steady) indicating dragging equipment.
5--System operational light (flashing) indicating that detector system is functioning properly.



The number appearing on the display board, if other than three zeros, indicates the location of a defect in terms of the number of axles from the rear of the train. If no defect, upon inspection, is actually found at the indicated axle, train crews are instructed to inspect four cars on each side of that containing the indicated axle. When the multiple alarm light is illuminated, crews must inspect from four cars ahead of that containing the indicated axle all the way to the rear of the train. The number indicated on the display board is valid only when the entire train has passed the detector, thus the crew on the hind end must be relied upon to read it. Detector readings are transmitted to a remote detector operator, upon whose shoulders rests the responsibility for determining whether a train should be stopped for inspection at a point designated for the purpose on the far side of the detector location. Train stop indications are given by one of three methods, depending upon the particular location, these being (1) a special train stop indicator consisting of a steady white light mounted on a mast (when this light is flashing a train may proceed past it); (2) by a block signal; or (3) by radio instruction to the crew.

Hot Box Detectors To Be Installed on CP Rail Lines in Ontario in 1983

Port Hope (four miles west) Colborne (seven miles west) Pembroke (three miles west)
*Snake River, 15 mi. east of Pembroke North Bay (16 mi. east) *Mattawa (nine mi. east)
*Warren, 34 mi. east of Sudbury Sturgeon Falls, 20 mi. west of North Bay
Echo Bay, 19 mi. east of Sault Ste. Marie Blind River (four mi. west) Nemegos, 20 mi. east of Chapleau Woman River (five miles west) Biscotasing
Sheahan, 24 mi. west of Cartier Missanabie (four mi. west) Middleton, 22 mi. east of Terrace Bay Marathon (three mi. east) Mobert, 26 mi. west of White River
Sprucewood, 13 mi. west of Nipigon Firehill, 12 mi. east of Nipigon
Pays Plat, 16 mi. west of Schreiber *relocation

--The former Ottawa Car and Manufacturing Co. plant in Ottawa is being demolished. The company built numerous streetcars and interurbans for Canadian operators, including the TTC's 2800 series Small Witts and the famous 400 series cars which operated on the Sandwich, Windsor and Amherstburg and on the North Yonge Railways. The company's last cars were the four 1000 series cars of the Ottawa Transportation Commission, constructed in 1948 using trucks and control equipment bought from New York City's Third Ave. Ry. System.

--Les Linley

CITY OF WINNIPEG TRANSIT SYSTEM

Energy, Mines and Resources Canada

MANITOBA
DEPARTMENT OF ENERGY AND MINES

T.C. Conversion Study

Brief mention was made in Newsletter 398 (Page 15) of a recently completed study which recommends a return to trolley coach operation in Winnipeg. A copy of the Executive Summary Report has since come to hand and a more detailed account of its contents now follows. The report is entitled "City of Winnipeg Transit System--The Feasibility of Conversion to Non-Petroleum Power Sources" and was prepared by the IBI Group in association with W.L. Wardrop and Associates. The study was financially supported by the Manitoba/Canada Conservation and Renewable Energy Demonstration Program and, through it, by the Federal Ministry of Energy, Mines and Resources and the Manitoba Department of Energy and Mines.

In the spring of 1981 the City of Winnipeg, with Federal and Provincial co-operation, decided to undertake a study of converting all or part of its transit system to non-petroleum power sources. The Province of Manitoba has a large untapped reserve of hydraulic resources which can be used to generate electric power, and a program of construction of major hydro-electric power projects has been developed. It was therefore natural to emphasize electric operation in the examination of options to the standard diesel bus.

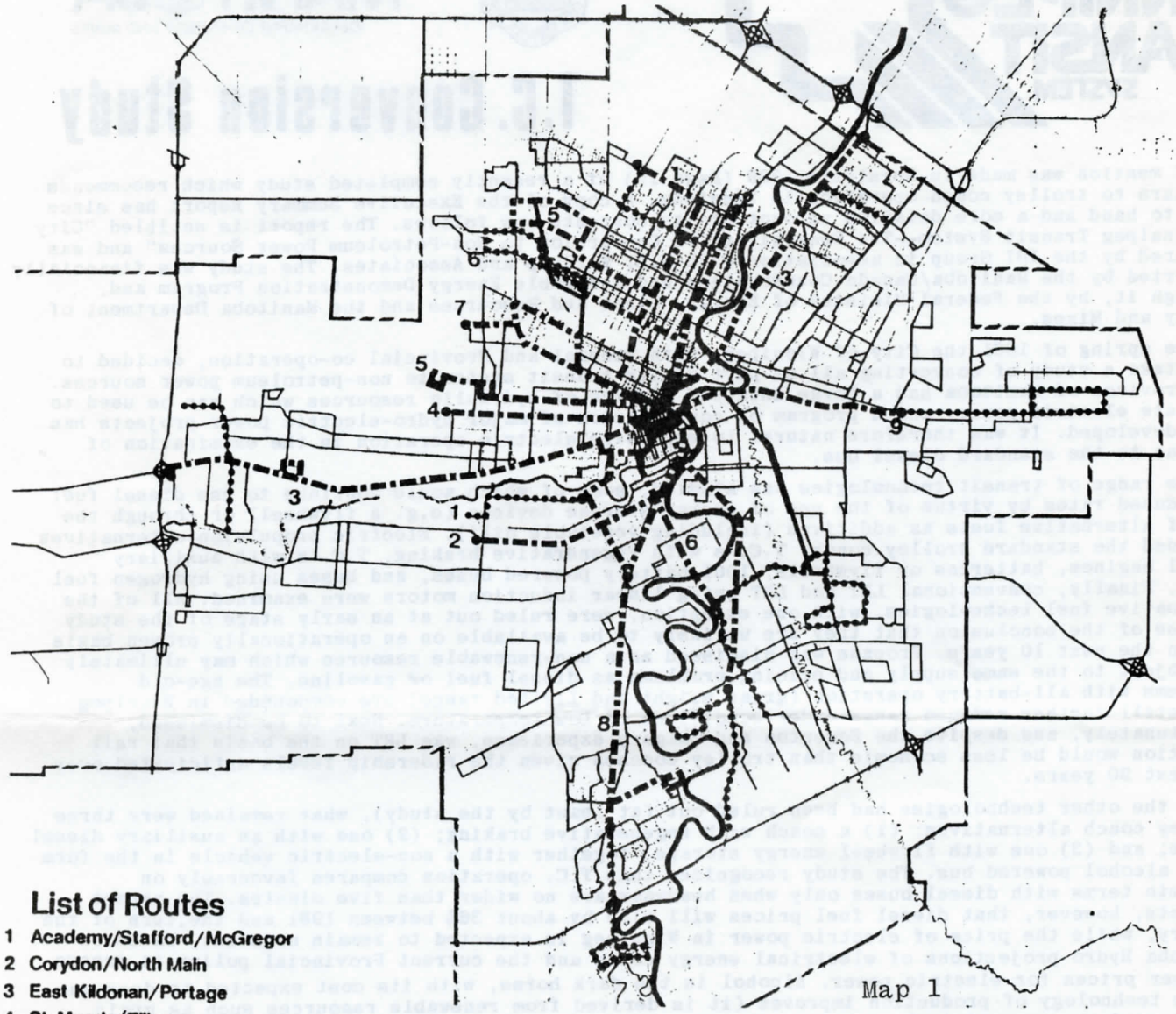
A wide range of transit technologies was studied, some of which would continue to use diesel fuel at reduced rates by virtue of the use of energy storage devices (e.g. a flywheel) or through the use of alternative fuels as additives (including vegetable oil!). Electric propulsion alternatives included the standard trolley coach, T.C.'s with regenerative braking, T.C.'s with auxiliary diesel engines, batteries or flywheels, 100% battery powered buses, and buses using hydrogen fuel cells. Finally, conventional LRT and LRT using linear induction motors were examined. All of the alternative fuel technologies, with one exception, were ruled out at an early stage of the study because of the conclusion that they are unlikely to be available on an operationally proven basis within the next 10 years. Propane was dismissed as a non-renewable resource which may ultimately be subject to the same supply and pricing problems as diesel fuel or gasoline. The age-old problems with all-battery operation (great weight and limited range) are compounded in Winnipeg by a still further reduced range under conditions of low temperature. Next to be dismissed, unfortunately, and despite the Edmonton and Calgary experience, was LRT on the basis that rail operation would be less economic than trolley coaches given the ridership levels anticipated over the next 20 years.

After the other technologies had been ruled out (at least by the study), what remained were three trolley coach alternatives: (1) a coach with regenerative braking; (2) one with an auxiliary diesel engine; and (3) one with flywheel energy storage, together with a non-electric vehicle in the form of an alcohol powered bus. The study recognizes that T.C. operation compares favourably on economic terms with diesel buses only when headways are no wider than five minutes. The report projects, however, that diesel fuel prices will rise by about 36% between 1981 and the turn of the century, while the price of electric power in Winnipeg is expected to remain constant, based on Manitoba Hydro projections of electrical energy costs and the current Provincial policy to freeze consumer prices for electric power. Alcohol is the dark horse, with its cost expected to decrease as the technology of production improves (it is derived from renewable resources such as grain, forest products or municipal waste).

Cost comparisons between trolley coaches and diesel buses reveal that, at current energy prices, the standard trolley coach, or that with regenerative braking, becomes marginally cheaper to operate at route frequencies greater than 22 vehicles per hour (at something less than a three minute headway). At future energy prices, the breakeven point occurs at about 18 vehicles per hour (a peak headway of about three minutes, 30 seconds). The trolley/battery and trolley/diesel hybrids remain more expensive than diesel buses under all conditions. The trolley/flywheel alternative is cheaper than all of the other trolley coach alternatives and comes out better than the diesel bus at vehicle frequencies of greater than 10 per hour (current energy prices) and greater than six per hour at future prices. (The reason for its theoretical lower cost in relation to the other T.C. options is that its use would be based on the use of overhead only on the inner sections of routes, with the flywheel taking over on the outer sections). The report recognizes, nevertheless, that the flywheel trolley coach is the least developed of the hybrid options in terms of actual operating and costing experience, and does not recommend it.

The report goes on to propose a list of nine routes for trolley coach conversion by 1999 (Map 1), with diesel bus (alcohol by then?) feeder routes. (The thin lines shown are non-feeder diesel routes). Four technologies were tested, costwise, against this nine-route system, including diesel bus, T.C. with regenerative braking, T.C./diesel and T.C./flywheel. The regenerative T.C. came out best, with diesel operation second. Why the flywheel operation was more expensive when tested in a specific system (as against its apparent theoretical economy (see above) is not explained, at least in the Summary Report). Four alternatives for an initial T.C. system were then examined in greater detail, and the three-route system shown on Map 2 was chosen on the basis of certain assumptions relative to ridership increases, the level of diesel fuel prices by 1987, and ease of expansion. The first conversions to follow the initial system would be, in order of priority, Route 8 (South-west Corridor), Route 4 (St. Mary's-Ellice), Route 1 (Academy-Stafford-McGregor) and Route 5 (Mountain-Sargent).

Proposed 1999 Route Network for Conventional Trolley Coach with Diesel Feeder



Map 1

List of Routes

1 Academy/Stafford/McGregor
2 Corydon/North Main
3 East Kildonan/Portage
4 St. Mary's/Ellice
5 Mountain/Sargent
6 Osborne/Selkirk
7 Notre Dame/Logan
8 Southwestern Corridor/ King's Park
9 Eastern Corridor/Transcona

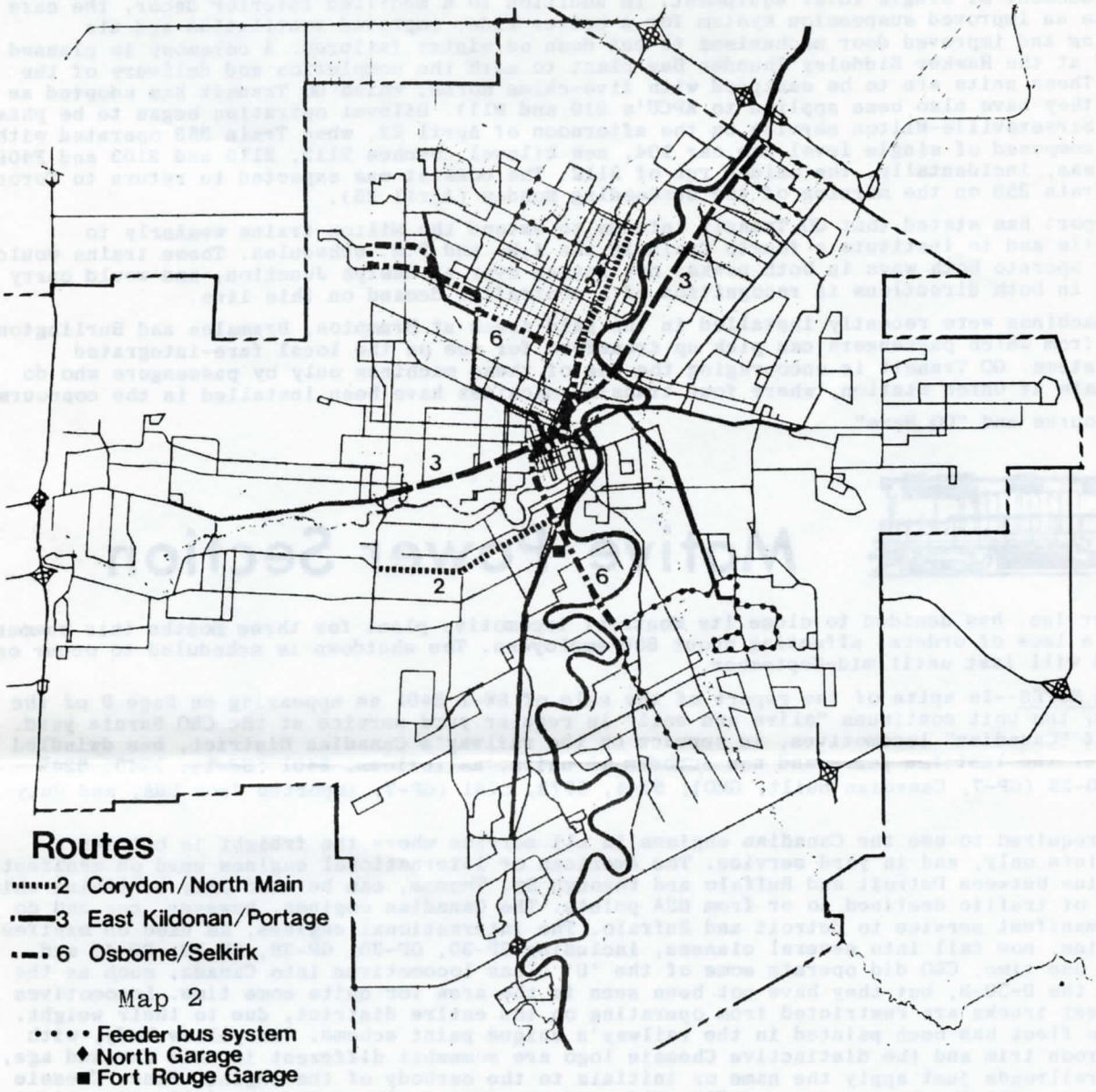
Legend

Overhead trolley coach cables
Feeder bus system
Cabled turn-around sections for trolleys

The estimated cost of implementation of the initial T.C. system is $40 million, including $25 million for vehicles and $15 million for overhead and other fixed installations, expressed in 1981 dollars. Construction is projected to commence in 1985, with completion in 1987. The vehicle capital costs would be offset by $17 millions worth of diesel buses which would not be purchased. The report fixes the estimated life of trolley coaches and overhead at 25 years and that of diesel buses at 15 years.

The study recommends that the City of Winnipeg explore sources of capital subsidy for T.C. conversion, which would tip the economic balance much more sharply in favour of electric operation. These sources would be the Province of Manitoba and the Federal Government. It is further recommended that the city begin to reserve sites for power substations, and to adopt lamp standard and utility pole types which would be suitable for supporting overhead. Discussion with Winnipeg Hydro and Manitoba Hydro on the matter of advantageous rate structures for the purchase of electrical energy are also advocated. Finally, it is recommended that Winnipeg Transit and other municipal departments establish a mechanism for the making of decisions on T.C. conversion in a "timely manner".

Proposed Network for Initial Trolley Fleet



Notwithstanding the dismissal of LRT by the IBI report, the advancing use of rail technology elsewhere and Winnipeg's wide streets, upon which central reservation trackage can be readily established, will, it is to be hoped, receive further consideration by municipal authorities, particularly if a delay in implementation of a T.C. system occurs. The anticipated differential in energy costs is equally relevant to LRT, and the possibility of economies as achieved through the operation of articulated cars at high schedule speeds on separated trackage are matters which should be given serious study by municipal and transit officials.

E&N REPORT --More problems with VIA Rail's Esquimalt and Nanaimo Dayliner service occurred on April 5, when 20 people were left on station platforms on the Victoria-Courtenay run. Although a two-car train had been operated over the Easter weekend, school holiday week patronage continued at a high level through the ensuing week and the single car used on Tuesday the 5th could not handle the offering load. As a result, four passengers were left at Langford, six at Nanaimo, six at Ladysmith and four at Duncan (not differentiated as to northbound and southbound trips). John Cooper, a Victoria alderman and Chairman of the E&N Steering Committee, was vocal about the incident. He pointed out that the Dayliner service on the Island is subject to situations such as that which occurred because there is no VIA official in Victoria with decision making powers. "At a time when ridership is down, they have created 20 irate customers who will probably never travel by train again", he opined.

On the 6th everyone was picked up by the single RDC, but 90 passengers boarded the 78-seat car at Courtenay, forcing 12 to be standees. On Thursday the 7th a second car was added, and there was no problem in handling the 235 passengers who rode the line that day (115 northbound and 120 southbound). Two-car operation continued on Friday the 8th and through the ensuing weekend.

--Mike Mastin

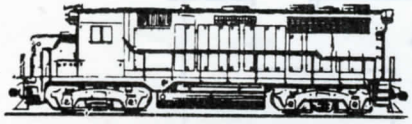
GO NOTES

The first bilevel coaches (2100 series) in the 71-unit second order entered service on the Lakeshore line on the morning of March 21. The remainder of the order, which includes 15 cab cars, is expected to be totally on the property by the end of the year, permitting total replacement of single level equipment. In addition to a modified interior decor, the cars incorporate an improved suspension system for a better ride, improved ventilation and air conditioning and improved door mechanisms to cut down on winter failures. A ceremony is planned for May 17 at the Hawker Siddeley Thunder Bay plant to mark the completion and delivery of the cab cars. These units are to be equipped with five-chime horns, which GO Transit has adopted as standard (they have also been applied to APCU's 910 and 911). Bilevel operation began to be phased in on the Streetsville-Milton service on the afternoon of April 22, when Train 353 operated with a consist composed of single level cab car 104, new bilevel coaches 2112, 2110 and 2103 and F40PH 512. This was, incidentally, the maiden run of 2112. The consist was expected to return to Toronto Union as Train 353 on the morning of the succeeding Monday (April 25).

A press report has stated that GO Transit intends to extend the Milton trains westerly to Campbellville and to institute a fourth train in the A.M. and P.M. schedules. These trains would apparently operate both ways in both peaks, not laying over at Guelph Junction, and would carry passengers in both directions in recognition of a contraflow demand on this line.

Transfer machines were recently installed in the paid areas at Brampton, Bramalea and Burlington stations, from which passengers can pick up transfers for use on the local fare-integrated transit systems. GO Transit is encouraging the use of these machines only by passengers who do not originate at Union Station, where four transfer machines have been installed in the concourse.

--Dave O'Rourke and "GO News"



Motive Power Section

• Bombardier Inc. has decided to close its Montreal locomotive plant for three months this summer because of a lack of orders, affecting about 800 employees. The shutdown is scheduled to occur on June 17 and will last until mid-September.

• C&O POWER NOTES--In spite of the report of the sale of SW-1 8401 as appearing on Page 9 of the March issue, the unit continues "alive and well" in regular yard service at the C&O Sarnia yard. The fleet of "Canadian" locomotives, in service on the railway's Canadian District, has dwindled somewhat over the last few years and now numbers 15 units, as follows: 8401 (SW-1); 5240, 5242 (SW-9); 5730-38 (GP-7, Canadian built, GMD); 5744, 5773, 5781 (GP-7, imported from USA, and duty paid).

The C&O is required to use the Canadian engines in all service where the freight is between Canadian points only, and in yard service. The American or international engines used on manifest freight trains between Detroit and Buffalo and through St. Thomas, can be used only on trains which are made up of traffic destined to or from USA points. The Canadian engines, however, can and do operate in manifest service to Detroit and Buffalo. The international engines, as used on manifest freight trains, now fall into several classes, including GP-30, GP-35, GP-38, GP-39, GP-40 and GP-40-2. At one time, C&O did operate some of the 'U' class locomotives into Canada, such as the U-23-B, and the U-30-B, but they have not been seen in the area for quite some time. Locomotives with six-wheel trucks are restricted from operating on the entire district, due to their weight. The Canadian fleet has been painted in the railway's unique paint scheme. The yellow body, with blue and maroon trim and the distinctive Chessie logo are somewhat different in this day and age, since many railroads just apply the name or initials to the carbody of the engine. Since Chessie intermingles at will the locomotives of C&O, B&O, and WM, any or all of the three liveries might be seen in a lashup of locomotives at any time. and there is no particular scheduling for units of the various ownerships. Some of the B&O locomotives are still in the old colours, solid blue with yellow strip along the running board, and some of the WM locomotives still appear in the old WM livery of red and grey. There is quite a variety of colours to be seen on some occasions.

—E.A. "Ted" Wright

POWER NOTES BY BRUCE CHAPMAN

CP RAIL RETIREMENTS--6523, 6540, 6542, 6547 (S3), 6602-03 (S10), 7033, 7051, 7086, 7088, 7093 (S2), 7105 (S4), 8445 (RS3) as of Feb. 2, 1983; 1006 (Robot Control Car) was written up for retirement Mar. 18. RS2's 8400-04, built by Alco in 1949, and CP's only road switchers lacking MU control, are scheduled for retirement at Newport, Vt. on June 30. They will be replaced by 1800-04, class RS18u.

CP RAIL REBUILDINGS, TRANSFERS--GP9 8506 entered Ogden Shops Mar. 24 for rebuilding; RS3's 8443, 8456 were stored serviceable as of Mar. 17; 8452 and 8441 were stored serviceable as of Mar. 11; F7B's 4445, 4459, 4461 and 4462 are being rebuilt for hump service. Sw9 7402 was rebuilt at Weston Shops and renumbered 1203, released Mar. 18; GP9 8651, rebuilt to yard unit 1540 at Ogden Mar. 11, is now at St. Luc Engine Terminal, Montreal; FP7A 4071 entered Angus Mar. 14 for overhaul for the Montreal Urban Community Transportation Commission commuter service; 4074 is next. GP9 8518 entered Angus Mar. 25 for overhaul; it will emerge as 8202 and be assigned to Winnipeg. Replacing it at Calgary will be GP9 8808, transferred from Winnipeg.

SD40-2 DELIVERIES FROM GMD--6036, 6041, Mar. 10; 6031, 6042, Mar. 14; 6043, 6044 Mar. 16; 6045, 6046 Mar. 22; 6047, 6048 Mar. 31.

CN--Twelve GMD1's are expected to be retrucked for yard service, and ballasted to about 248,000 lbs., with larger fuel tanks and Flexicoil trucks off retired Geeps. So far, 1040 has been so

modified, with 1024 and 1017 in Transcona Shops; they will be renumbered 1140, 1124 and 1117. The first few will be assigned to Edmonton's Calder Yard, releasing 1200's (SW1200RS's) to Symington Yard, Winnipeg. The next few will go to Saskatoon, releasing 1200's to Symington, in turn releasing 7100's and 7200's (SW8's, SW900's) to come east to permit the retirement of more S4's, S7's and S12's. Presently 1006, 1056 and 1273 are in Pt. St. Charles Shops, Montreal for rebuilding.
--GP40-2's are now working the Prince Rupert line, bumping Geeps and 9100's (F7Au's). GP38-2's formerly assigned here have been moved to the Great Slave Lake Ry. The GLSR eventually expects to have eight GP38-2 (W)'s of series 5590-99, plus one 1300 (SW1200RS). The Geeps that were up there will probably go to Prince Rupert and Calder.
--CN currently has about 250 units stored systemwide: 50 M420's and 200 unrebuilt Geeps, RS18's, C424's and plain GP40's.
--1354 was demolished in a yard mishap in Prince Rupert Mar. 31; it hit GP40-2L (W) 9651, which sustained frame damage.
--A number of GP38-2's are being modified to reduce their weight to 248,000 lbs., permitting the units to operate on branch lines. This is accomplished by reducing the sand capacity from 52 cu. ft. to 26 cu. ft., fuel on 5500-36 to 1600 gallons (approx.) and on 5560-5610 to 1800 gallons.
--The following transfers have recently taken place: from MacMillan Yd., Toronto to Prince George, B.C.: 9633-9639, 9642-9652, 9657-9663 (GP40-2Lw); Capreol, Ont. to Pr. George: 9664-67; Symington to The Pas, Manitoba: 4340 (GP9); Calder (GLSR) to Pr. Rupert: 4341, 4343, 4345, 4346, 4350 (GP9's) Pr. George to Pr. Rupert: 9158, 9162 (F7AU's)Calder to Pr. Rupert: 9168; Calder to Pr. George: 1342; Pr. George to Calder: 5577-91 (GP38-2w); Pr. George to The Pas: 4206, 4207, 4209, 4210; to Taschereau Yd., Montreal: 4211-12; stored at Pr. George: 4208; Pr. George to Calder: 9160; Pr. George to The Pas: 9156, 9157, 9159; MacMillan to Symington: 5519-23; Taschereau to Symington: 5524-36; Calder to Taschereau: 4219-26, 4228-30, 4232-40, 4298; Saskatoon to Taschereau: 4241, 4243-47; Symington to Ft. Erie: 4117-22; 4124-5; 4133 (GP9's); Symington to London: 4126-7, 4129-30, 4132; Ft. Erie to Senneterre, P.Q.:4000-4011(GP9u); Senneterre to Ft. Erie: 4476, 4577, 4579, 4581 (GP9's); Symington to Ft. Erie: 9195-6, 9198 (F7AU); Symington to Taschereau: 4100-06, 4155-6, 4327-9, Taschereau to Ft. Erie: 5030-9 (SD40's); Taschereau to Neebing Yd., Thunder Bay: 5068-75; Neebing to Thornton Yd.: 5000-07; Thornton to Taschereau: 5076-83; Symington to Capreol: 9460-3 (GP40-2Lw); Calder to Symington: 5180-9 (SD40's); Symington to MacMillan: 9450-9; Moncton to Taschereau: 2563-75 (M420w's); Taschereau to MacMillan: 9438-49, 9618-9 (GP40-2Lw's);

--Retired as of Mar. 26 were 1276 (SW1200RS), 4242 (GP9), and 8070, 8188, 8227 (S7's).
--GP9 4529 has been noted in a varied paint scheme: orange short hood and cab, CN logo on both ends of unit; long hood is black without white stripes, but large logo painted in white instead.
--At Moncton the following units have recently emerged from the shops in the new paint scheme: 3626, 3643, 3707, 3720, 3838, 2028, 1783, 2036, 2512.

VIA--The RDC-1 which was demolished in the wreck at Carstairs, Alberta on Mar. 23 was 6146, ex-CP 9300. The unit had been recently renumbered after being re-engined with Cummins engines; it had been refurbished internally and outfitted with a small snack bar.
--The Turbotrain equipment is up for sale: operational cars 146, 149, 151, 154, with or without turbines; intermediate cars 201, 203, 204, 226, 228, 229, 251, 254, 256, 259, 261, 264, 257, 263, as well as stored unserviceable cars 145, 200, 202, 225, 250, 255, 260.
--F9B 6632, damaged in the head-on collision at Ingersoll, Ont. last year when trailing 6537, is back in service after repairs.
--FP9A 6524, contrary to the report in the April Newsletter, may have its steam generator removed and be further "lightweighted" for service on the Churchill line with a steam generator car. Perhaps as many as five FP9A's may be thus modified, enabling VIA to stop leasing CN F7AU's 9150-5.
--RDC-1 6104 has been sent from Toronto to Transcona for overhaul.
--LRC locomotives 6900-04, based at Spadina Yd., Toronto, are being used on Tempo and conventional trains.
--In Central Station, Montreal, the Turbotrain bay will soon be empty, so about 19 RDC's will be maintained there plus CN's electric locos and MU cars. Pt. St. Charles running shop could soon be all VIA. CP's Glen Yd. will no longer handle VIA RDC's; all of these will come from Central.

--CN HR616's 2104-19 have had their class changed to MF32a from MF30c, although they are derated to 3000 H.P.

--Can-Car-Rail, a subsidiary of Hawker-Siddeley Canada Inc., was the "apparent" low bidder for the Houston (Texas) Metro transit car order--but Houston has determined that the real low bidder was Hitachi. Accordingly, a contract worth $139,301,870 for the supply of 130 cars has been awarded to the joint venture of Hitachi America, Ltd. and C. Itoh (America) Inc. Can-Car-Rail's bid was $110.9 million. After evaluating the bid and accompanying documents, Houston officials found that it was "not responsive to the requirements in a number of areas, including the air conditioning, certain fire safety and flammability requirements and the price of necessary parts." Metro General Manager Alan Kiepper said the Hitachi bid was approximately $16 million under the estimates of Metro engineers. Altogether, 10 bids were received.

--Responding to a complaint filed by the Budd Co., the U.S. Department of Commerce ruled Feb. 4 that the Government of Canada illegally subsidized New York MTA's purchase of 825 subway cars from Bombardier. The department said that the subsidy amounted to $91.2 million, or $110,565 per car. New York will, however, not have to pay the penalty. Having established what it called an "important principle", Budd withdrew its complaint. Said MTA Chairman Richard Ravitch: "We welcome Budd's decision not to press for the imposition of countervailing duties...We look forward to doing business with Budd in the future.' A coalition of labour unions which had complained about the purchase of cars from Canada also agreed not to press for a penalty. In return, MTA agreed to abide by federal Buy America provisions through the year 1985. Under these provisions, more than half of a car's components must be produced in the U.S. and assembly must take place in that country.

--Above two items from Railway Age, via Bob Sandusky

BUFFALO: LRRT UPDATE

by John D. Thompson

The Urban Mass Transportation Administration will provide $25 million in funding for construction of the LaSalle Station, at Main and LaSalle Streets. Although this facility had been in the original plans for the project, the NFTA and the City of Buffalo, in late 1981, had discussed deletion of it in order to provide additional funds for the elaborate transit mall on downtown Main St. However, there was considerable pressure brought to bear by citizens in the area to be served by the station and, after long drawn out and involved negotiations, funding is now assured for the station. Presumably the mall will also be built as planned. NFTA expected to have the LaSalle Station contract ready for bidding by mid-May, 1983. It was essential that construction begin as soon as possible, in order to achieve completion by the line's targetted opening in the spring of 1985. NFTA Chairman Raymond Gallagher will announce shortly whether this date can be met.

Also on the good news front, NFTA has said that it will go ahead and build the Tonawanda Turnout immediately south of LaSalle Station. The turnout, basically, will involve creating openings in the tunnel walls and starting short tunnels which will ultimately lead to up and down ramps to and from the former International Railway Company Niagara Falls High Speed Line. This right-of-way, located between the former Erie R.R. and DL&W Niagara Falls and Black Rock lines, respectively, will be used for NFTA's extension to North Tonawanda. Again, construction of the turnout prior to the startup of Main St. LRRT service was considered crucial. Opening day for bids for the $5 million turnout project was April 26. It will be funded by the City of Buffalo (which put up the money in exchange for an Erie County takeover of some services), the NFTA, and the New York State Department of Transportation. UMTA reported that it is holding up for further study any funding of the Tonawanda Turnout. The NFTA still hopes that UMTA will ultimately pick up the tab, however. One factor in UMTA's reluctance to make a commitment to a Tonawanda line now is that Representative Jack Kemp, of Hamburg, and Amherst Supervisor Jack Sharpe want assurances that an Amherst line (beyond the terminus of the Main St. line at Main and South Campus) to the University of Buffalo Amherst Campus will receive equal priority. "I can understand that", NFTA Chairman Gallagher said in an interview; "We want both lines, too." Both NFTA and a large segment of the Niagara Frontier business community feel that the Main St. line can be economically viable only if it has suburban feeder lines. NFTA will be negotiating with Conrail for purchase of the right-of-way between Main St., Buffalo, and Fillmore Ave. in the City of Tonawanda. The former Erie R.R. Niagara Falls Branch has been abandoned between these points.

Meanwhile, NFTA appears to be nearing a solution to water leakage problems which have plagued the Main St. bored tunnel sections, which are 3.5 miles long, through rock. Chemical grouting has been completed in the Delavan Station, as well as along 100 feet of outbound and 400 feet of inbound tunnel just south of the station. This area, which is below the water table, had been suffering heavy water leakage, but is now quite dry. The grouting is a patented crystalline compound that is mixed chemically with the concrete tunnel walls and sets up a permanent waterproofing process. After the LRRT line becomes operational, occasional grouting work will be carried out as part of routine maintenance procedures.

Stimm Associates of Buffalo and Fitzpatrick Construction Co. Ltd. of Montreal are performing the work. Technical Grouting Services Inc. is providing the material, equipment and expert consultants. The cost is not yet known. NFTA has been embroiled in disputes with the two contractors responsible for the rock tunnel sections over the water leakage problem, and its solution. S&M Constructors, of Solon, Ohio, contractors for the 7300 feet of twin rock tunnels from Amherst Station to South Campus Station, have sent a letter to the NFTA saying that they do not consider it possible to waterproof the tunnels under the specifications of their contract. Fruin-Colnin of St. Louis, the south rock tunneling contractor, was pulled off the waterproofing job by the NFTA in the midst of a debate over whether the contract specifications were properly drawn up for the work. However, NFTA is confident enough in the waterproofing work now under way to take Fruin-Colnin to court. The NFTA Board has rejected an out-of-court settlement offer from the contractor, and is holding back $500,000 owed them, pending successful completion of the project. The 1.7 miles of cut-and-cover subway between Ferry and Tupper Streets has experienced only minor leaks.

The success of NFTA's waterproofing efforts is crucial, for the Metro Rail project has reached a stage where project timetables have to mesh. The Herzog Co. of St. Joseph, Mo., contractor for the track, was scheduled to begin roadbed work in the cut-and-cover tunnel on April 27, and in the rock tunnel by May 11. Tracks in the tunnel section are being laid on a shock-absorbent rubberized rail bed, to provide a quieter ride for passengers. At Delavan Station, the curved porcelain wall panels, blue in colour, have been installed. South Campus will feature white panels. Installation of the 21 escalators in the underground stations is also underway. The $4,585,650 contract to furnish and install this equipment went to the Westinghouse Electric Corporation, of Rockville, Md. The cut-and-cover stations, Allen-Hospital, Summer-Best and Utica, will each have three escalators; one extending from street to mezzanine level, and one at each end of the mezzanine leading to platform level. In the rock tunnel section, Delavan features four escalators; two from surface to mezzanine, two from mezzanine to platform level. Humboldt-Hospital's four escalators include one from each of the entrance structures on both sides of Main St., to the mezzanine, and one in each end of the mezzanine to the platform. Amherst, a centre platform station, will have two escalators. The entrance to South Campus Station is being built directly into the natural upward slope of the terrain. Arriving passengers will thus proceed directly into the mezzanine from the surface. Two escalators to platform level are being provided here.

First Pair of Buffalo LRV's Completed--NFTA Light Rail Vehicle 101 operated at its builder's plant, the Tokyu Car Corporation in Yokohoma, Japan, for the first time on January 20, 1983. The car was completed amidst ceremony on Feb. 23 and loaded aboard a ship at Kawasaki a few days later. It is now at the U.S. Department of Transportation test facility at Pueblo, Colorado, for UMTA tests. Car 102 will be shipped directly to Buffalo from Japan, with both cars arriving in the city at about the same time, early this summer. Catenary will be temporarily left off of the track at South Park Carhouse nearest to the street to accommodate these deliveries.

The two cars are being shipped without their trucks and pantographs, which are separately crated. Car 101 came to the West Coast in a landing craft type of vessel. The ship's bow unfolds to a ramp, and the car was rolled out onto the dock on specially-built rubber tired dollies in place of the trucks. The crates were handled by forklifts and cranes. A crane then lifted the carbody off the dollies onto husky steel "sawhorses" specially designed for the purpose. Then the car was lifted by a huge dockside crane onto an 85-foot flatcar and the sawhorses were welded to the flatcar. The crates containing the trucks and pantographs were placed at one end. Aboard the ship, the placement in the hold was adequate protection for the car. For the railroad portions of the journey, the carbody is covered to shield the finish from scratches and scrapes.

It will indeed be an inspiring and historic moment for Buffalo railfans when sometime this summer at South Park Carhouse the pantograph of one of NFTA's beautiful new LRV's is raised to the life-giving overhead for the first time, the lights come on and power surges through the motors. Then, almost exactly 33 years after the last IRC street car completed its final run, an electric rail vehicle will once again be operating in Buffalo.

A PASSENGER COMMENTS ON THE LRC--It is to be hoped that VIA will include the passenger accommodation in its review of the LRC (April Newsletter). The external appearance of these trains is excellent; they look right. Unfortunately, the favourable impression is lost as soon as you sit down; the seats are narrow and may charitably be described as firm; the armrests are unpadded, the outer rest being taken up with a metal ashtray while the centre division includes the folding table hardware. As this is fixed, there is no possibility of spreading out if the second seat is empty. The seats do not rotate, so half of the riders must face backwards.

The overhead baggage compartments are adequate only for coats and shopping bags, so cases must be left at the end of the car (but remember to take out anything you want, as your case may be buried under 50 others). You WILL probably want to take your coat off, as the heating system seems permanently set to 85 degrees Fahrenheit, and these cars don't have coat hooks (or litter bags).

The catering has hit new lows. I don't remember dining cars between Toronto and Ottawa, but have existed for several years on microwaved soup with pancakes and sausages. However, even these standbys have been eliminated and only a trolley service of snacks and drinks is available. The attendants perform wonders considering the limited galley space.

The trains do succeed in some areas: besides looking right, they are quiet and smooth riding and the speed on the main line makes a five hour service possible at last between Toronto and Ottawa. It is a pity that the details do not live up to the overall concept and that older equipment such as the Turbos, the Tempos and even RDC's can still outscore the LRC's in some areas.

--J.M. Harry Dodsworth

SHORT HAULS by Bruce Chapman

--All ONR units are now in the new yellow and blue paint scheme except for GP9 1604 which is out of service due to electrical problems. The last FP7A repainted was 1509.
--At the change of timetables at the end of May VIA Train 14, the eastbound OCEAN will set off its sleepers and diner at Moncton and continue on to Halifax with coaches only. The westbound OCEAN, No. 15, picks up the sleepers and diner for the journey to Montreal.
--A Montreal newspaper report indicates that CN is interested in selling its subsidiary, the Central Vermont Ry.
--VIA wants CP to cut 10 minutes off Montreal-Quebec City Trains 159 and 160's running times as of the spring timetable change. If the Cummins re-engined RDC's are used, they might reduce the time by 15 minutes, as the Cummins units develop 492 H.P. compared to 317 for GM-equipped RDC's.
--CN power is being used on the CV to White River Jct. daily, back on Train 447 the next day, often MU'd with CV power. CV RS11's 3603, 3604. 3609, 3612 are out of service, plus GP9's 4926, 4928, and S4 8081.
--The GT is acquiring DW&P RS11's 3606-8, 3610, 3613; the 3608 will be chopnosed.
--NAR baggage car 1453 has been sold to the Vancouver, B.C. Chapter of the NRHS. It left for Vancouver on March 18.

• The CNR has advertised for tenders for removal of the tracks on 7.7 miles of the Beeton Sub. between Georgetown and Cheltenham, Ont., and 79.07 miles of the Marmora Sub., between Marmora and Lake St. Peter, Ont. The latter track may be tendered for removal in 20-mile sections. The Georgetown-Cheltenham portion of the line was at one time going to be used by the Ontario Rail Association for their steam tourist train operation, but this proposal fell through when the Province decided against opening a Provincial Park at Cheltenham. The line was last used in its entirety circa 1970; the portion from Barrie to the Beeton area is still passable, although reportedly it currently sees little if any use. No doubt the Cheltenham,Beeton portion will be next to be abandoned. The Marmora-Lake St. Peter line originally extended from Belleville to Wallace, and was intended to link up with CN's southerly line across Algonquin Park, the former Ottawa, Arnprior and Parry Sound Ry. --Based on information from Don McCartney

THE ALRT SYSTEM FOR VANCOUVER: FURTHER DEVELOPMENTS AND STATISTICS by Ralph Oakley

The normal capacity of each car will be 40 seated and 35 standees. The crush load capacity has been variously stated as 89, 100 and 109. The estimate is that the initial 114 cars, with normal load, will carry 10,000 passengers per hour and that, with additional cars, the ultimate possible capacity can be 30,000 per hour. The running time in both rush and normal hours will be 30 minutes for the 21.4 km (13.3 mile) trip from the Seabus terminal to New Westminster. All trains will originate at the Seabus terminal, but, in rush hours, some trains will be short-turned at the Broadway and at the Metrotown stations. Express service will not be operated. During rush hours, the headway between the Seabus terminal and the Broadway station will be 105 seconds. There will be provision for wheelchair patrons. The following security measures will be incorporated: two-way communication between passengers and the central control facility; patrols; closed circuit television; telephones and traction power disconnect switches on station detectors on system components. It is claimed that the power supply rails will have a protective cover but that is not indicated in other related publications and was not included on the car and right-of-way mock-up which appeared at the Pacific National Exhibition and in downtown Vancouver. Various estimates have placed the cost per passenger ride at between 2.5 and 16 dollars, depending on what items are assessed against operation of the system. The shortfall between fares and costs will be covered by various taxes levied on the general public and on motor vehicle operators. The construction cost per kilometre (.621 mile), as related to the carrying capacity of recently constructed systems, or systems under construction, in millions of dollars, is: Vancouver 3.3, Calgary 3.7, San Diego 4.5, Edmonton 5.4, Pittsburg 6.3, Portland 3.4, and Buffalo 12.2 Cars will have graffiti-proof paint.

--Condensed from an article in the Vancouver Province newspaper, edition of January 23, 1983

QUID PRO CROW

CP Rail's 1983 capital spending will be 75% higher than originally planned and that of CN will be 40% higher, following the Federal Government's decision to scrap the statutory Crow's Nest Pass rates which have burdened the railways with heavy losses on grain transport. The carriers' combined outlays this year will total $808.6 million, of which 70% will go for projects in the west where much of Canada's exports originate. The 1983 expenditures will be part of a combined five-year program now estimated at $6.8 billion.

The increased investment is made possible by the government's decision, announced Feb. 1, to phase out the 86-year-old Crow Rate, which has forced the railways to absorb as much as 80% of the cost of moving grain from Western Canada. Last year alone, CP and CN lost a combined $400 million on statutory grain, their single biggest commodity in volume. According to a government statement, the "new transportation regime" will bring rates paid by western farmers "more in line" with actual costs of rail transport. Grain freight rates will rise to slightly less than double the current fixed levels by 1985-86. The grain producers and the government will share cost increases under a new formula.

That will still leave a gap in the railroads' cost recovery, to be filled by a statutory annual payment of a "Crow Benefit." That is the difference in the 1981-82 crop year between (1) the estimated total rail cost for grain transportation in the West and (2) the revenue derived from the statutory rate paid by producers. Set at $644.1 million, the new Crow Benefit, plus the government share of increased costs, will go entirely to the railways the first year. Thereafter, an increasing proportion of those payments will go directly to producers, reaching a 50-50 split by 1985-86. Then there will be a review that might lead to Parliamentary approval of a continuing progression, so that by 1989-90 the proportion would stabilize at 81% to producers and 19% to the railways.

Legislation for the new formula was scheduled to come before Parliament in April or May, with passage expected by August. Meanwhile, the government will make interim payments of $313 million to the railways to encourage launching of expanded capital programs this spring.

The government's program includes a condition that the railways meet "firm performance and investment commitments." Both immediately promised to do so, in letters detailing their plans for the next five years. According to the agreement, described by a CN spokesman as "quid pro Crow", the railways will concentrate on plant expansion that will strengthen Canada's position as an exporter of grain and other commodities.

Through the 1983-87 period, CP expects to spend $700 million for capital projects in the East and $2.4 billion for work in the West. Not to be outdone, CN will in 1983 spend $338 million for western capital projects and $153.6 for eastern work. In the west, $192 million will go for capacity expansion on the main line between Edmonton and Vancouver, and on the B.C. North Line from Red Pass Jct. to Prince Rupert. To be completed this year are 95 miles of double-tracking between Edmonton and Vancouver and 30 miles of new alternate trackage from Red Pass to Valemount. Also, four yard expansions will be completed and a fifth will be started. For the 1983-87 period, CN expects to spend $3.7 billion for capital improvements, including $1.6 billion for capacity expansion, $1.4 billion for plant renewal, and $715 million for equipment.

Also directly involved in improvement of rail transport will be the Federal Government, which will buy up to 3,840 hopper cars over the next three fiscal years at an estimated cost of $290 million.

--Abridged from an article in Railway Age, via Bob Sandusky

The street car safety loading islands on King St. West at Crawford St. are to be removed during 1983, as the City of Toronto ironically considers them to be a visibility hazard to pedestrians crossing King St. at this location.

UCRS and other events and activities

by Ed Campbell

Correction--It is regretted that, in the announcement of the Fall Colour Excursion appearing in the April issue, incorrect information in respect to the alternative entertainment after the excursion reaches Gravenhurst was given. The alternatives are many and include a side trip to Bracebridge or a trip on the restored steamship SEGWUN. The price of the fall colour excursion needs clarification also: fares, if ordered before August 15 are adults $37.95 and children $28.95, and the side trip to Bracebridge is $7.00 for all. After August 15 fares are adults $40.00 and children $30.00, and the side trip is $8.95 (all). The distance to Bracebridge and return is about 88 miles with about half an hour in Bracebridge. This will be an excellent trip; be sure to buy your tickets early so that you may ride on the upper deck of the bilevels. I might add that there will be a bus connection to the steamship dock and to the Gravenhurst Fall Fair. The cost of admission to the fair and of the trip on the SEGWUN is not known at present.

--President Charles Randall regretfully announces the resignation of Marge Seidel as Membership Secretary due to pressure of work. We all thank her for a job very well done. Director Allen Maitland has agreed to assume this position. The President is also very pleased to announce the election of John Hesse as a Director and his appointment as Treasurer. We wish both of these Directors well in their new duties.

--The Society wishes to thank Ross and Robert Johnston of Fenelon Falls and Arthur and Shirley Crisp of Kilworthy for their very kind assistance at the UCRS booth at the Lindsay Model Railway Show held on April 9-10.

--The UCRS store at CN St. Clair Station will not be open during May.

Friday, May 20--The regular UCRS Toronto meeting will be held at the Education Centre (6th floor auditorium), College and McCaul Streets, at 8 p.m. sharp. Doors will be open at 7 p.m. for the usual informal get-together. Do not forget to bring your newscast slides. The program will consist of an address by Mr. Gordon Thompson, of Buffalo's NFTA, illustrated by slides, on the subject of the electrified railways (main line, suburban and urban) of Japan.

--Friday, May 27--The regular Hamilton Chapter meeting at the CN station at 8 p.m. The entertainment will be a showing of members' 35mm slides. All UCRS members and their friends are always welcomed at Hamilton. For Toronto members there is always the added attraction of a GO Transit bilevel ride from Union Station direct to Hamilton Station, leaving at 17:19 or 18:03.

--Friday, June 17--The regular UCRS Toronto meeting will be held as usual in the 6th floor Education Centre auditorium at 8 p.m. sharp. Bring your friends to enjoy a program replete with nostalgia: UCRS members Bill Hood, Bob Sandusky and Dave Spaulding will collaborate on the presentation of a review of 40 years of UCRS charter excursions by way of slides drawn from their collections. This will be a night that no member should miss--come, renew old acquaintances and relive those great trips of yesteryear.

--The Western New York Ry. Historical Society will hold an "I-1 Birthday Party" (2-10-0 4483, ex-PRR) on Saturday, June 4 at the West End End Hotel, Hamburg, N.Y. from 12 noon to 1 a.m. Featured, among other activities, will be two hours of PRR movies and slides, a hot and cold smorgasbord supper, and evening dancing with open bar. The Society's recently acquired Decapod will be on display on a siding near the hotel. Tickets, covering all events, are available at $18.00 apiece from WNYRHS Inc., Box 416, Buffalo, N.Y. 14221-0416.

"IN BUSINESS FOR CANADA"--BUT FOR LESS AND LESS OF IT--The principal news being made by CN these days is in respect of line abandonments and track removal. The railway has received permission from the Canadian Transport Commission to abandon 20% of its line mileage in Prince Edward Island. The positive aspect of this is that it at least scotches rumours pro tem that the entire island system was ripe for early abandonment. Of the 268 miles in the province, CN had made application to discontinue operations on 71 miles of line; the Commission, however, has seen fit to give permission in respect of 53 miles only. Service has been ordered to be maintained between Maple Hill and Uigg, Lake Verde and Mount Albion, Mount Stewart and Montague , and Harmony Jct. and Baltic.

Meanwhile, in Ontario, the railway has called for tenders for the purchase and removal of track from two sections of line of closely similar length: 19.15 miles of the former Drumbo Subdivision between Paris and Tavistock (part of the original Buffalo, Brantford and Goderich Ry.), and 19.38 miles of the Forest Subdivision from Mile 48.00, near Forest, to Mile 67.38, near Sarnia. It is lately reported that a section of the Campbellford Subdivision (the line between Peterborough and Belleville) is to be withdrawn from service.

SOMETHING NEW UNDER THE SOUTHERN SUN--Many of today's larger cities are famous for their space needles/towers, upon which at some suitable position sumptuous restaurants revolve for the delectation of citizen and visitor alike. This facility for dining "in the mobile round" is an extrapolation of the remarkable custom of dining on various terrestrial vehicles, such as railway dining cars, notably on the London-Venice "Venice Simplon-Orient Express", the Delhi-Jaipur-Jaisalmer "Maharaja's Palace on Wheels" and the bateau-mouche on the Seine at Paris. Other cities, not fortunate enough to have a skyscraper, a space needle or a CN tower, necessarily have created other moving milieux for sightseeing, entertainment and dining. A report in the New York Times in December 1982 described how the city of Melbourne, Australia, has rebuilt a street car into a runabout restaurant, whereon diners (passengers) are offered a four-course menu at lunch or dinner, irrigated with Australian champagne, of course, while they are enjoying the sights and scenery en route.

For those passengers who estimate sightseeing and mode of transport before sustenance, the Colonial Tramways Company offers prandial perambulations covering an assortment of routes--subject to change without notice! The trips take about 90 minutes at lunch, leaving at 1200 and 1400, and about two hours at dinner, leaving at 1900 and 2130. Diners for whom the carte and the wines are of paramount importance may select from a spectrum of appetizers, such as lobster mousse or State of Victoria pumpkin chowder, and entrees such as roast loin of lamb or trout with vegetable, all in a Pullman-palace-car-style setting, complete with appropriate period napery, drapery, cutlery and butlery. Melbourne's travelling tramcar-restaurant operates every day of the year with an all-inclusive price for the perambulation and luncheon/dinner of about U.S. $50 per person. Reservations must be made at least three weeks in advance. You are interested? Risk 37¢ for further information from the Victoria (Australia) Government Tourist Authority, 3550 Wilshire Blvd., Suite 1736, Los Angeles, Ca. 90010, U.S.A. (213-387-3111).

--Sandy Worthen

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