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The Cover

Wintertime, and with the season comes the use of railway ploughs to keep the lines clear of snow. In this scene, a plough train crosses the Rouge River northbound on CP Rail's Havelock Sub, just north of the boundary of Metropolitan Toronto (Steeles Avenue).

-- David M. More.

Coming Events

Regular meetings of the Society are held on the third Friday of each month (except July and August) at 589 Mt. Pleasant Road, Toronto, Ontario. 8.00 p.m.

Apr. 17: (Fri.) Regular meeting. Ross Hoover "Railways of Manitoba" Illustrated by slides.

Apr. 24: (Fri.) Hamilton Chapter meeting, 8:00 p.m. in the CN Station Board Room, James St. N., Hamilton.

Apr. 25: (Sat.) UCRS steam excursion with CN 6218 Toronto to Lindsay. Leaves Toronto Union Station 0900 hours Eastern Standard Time. Fares adults $12.00, children $6.00, infants $1.00 Return to Toronto about 1820 hours.

Apr. 26: (Sun.) Six hour TTC streetcar trip around Toronto. Departs EB King & Yonge at 0930 hours Eastern Daylight Time. Fare $4.00.

May 15: (Fri.) Regular meeting. Entertainment to be announced.

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A MESSAGE FROM THE EDITOR

Sharp-eyed readers of this issue will note a missing name from the masthead of the Newsletter. It is with great regret that I announce that Jim Brown, Associate Editor of the Newsletter, is leaving his post with the magazine effective with this issue, to devote more time to other phases of the railroad hobby, notably operation and construction of scale live steam locomotives. I am sure that the members and readers will join me in wishing Jim the very best in his new endeavours. Watch the April issue of the Newsletter for new appointments to the masthead of the magazine.

This double issue is all part of a program by your Editor to bring the Newsletter out on time. By the time you read this, it is hoped that the April issue of the Newsletter will be into the printer. With the May issue, my hope is that it will be in the hands of the members in good time during the month of May. All of this catching up has put a very severe strain on the files of material on hand for Newsletter use. In order to present a full 12-page issue every month, the Newsletter staff needs material--feature articles, news, and photographs. If you see a news item in your local paper or a magazine about Canadian railroading, clip it out, or if this is not possible, have a copy made of the item, and send it into the Newsletter. All items receive consideration by the editorial staff.

The cover is the front page of the Newsletter, and the appearance the Newsletter and the Society presents to the world. It is the fond hope of the Newsletter staff that the cover photograph used each month is the best possible example of railroad photography. We need good railroad photographs for cover use. How about searching your collection and files to see if you have a photograph that might make a good Newsletter cover? We can use photos of any railroad subject--steam, diesel, electric, or otherwise--so long as it is a good photograph. If you think you have photos of cover quality, send them along to the Editor, and with the prints include a little bit of background data--location, date, etc. Full credit will be given in the caption. In addition we need photographs for possible use as filler material inside the Newsletter, as well as for possible use as illustrations with features.

All would-be writers are invited to send in feature articles for publication in the Newsletter. No topics need be specified, so long as the piece is of railroad interest--historical, present-day, the future; every article will be considered that is sent in. How about writing a piece on your favorite subject in the railroad hobby?

Last but not least, communications is the name of the game, also. Feedback is necessary to assess the results of decisions made. We would like an indication from the members and readers on two items: (1) what is thought of the quality of the paper used in the January issue (the stock used is a semi-gloss paper, compared with the opaque stock used in this issue); (2) whether the style of type used in this issue and the January issue is legible to all of the members and readers. 'Nuff for the moment, happy railfanning!

RAILWAY NEWS AND COMMENT

ONTARIO GOVERNMENT BRIEF PLANNED FOR RAILWAY HEARINGS

The Ontario Government will take part in forthcoming Canadian Transport Commission hearings on rail line abandonments in the province, Transport Minister Irwin Haskett told the Legislature on March 18, 1970. Mr. Haskett said the Government has been preparing material 'in support of the people and the communities concerned.' He noted that applications by Canadian National and CP Rail to discontinue their services in the Bruce Peninsula and along the Toronto-Guelph line are really attempts by the companies to secure federal subsidies.

A Transport Department official said Ontario will first "hold a watching brief" at the hearings, which begin on March 31, to ascertain the positions of the railways and the communities. The official said the Government will support the granting of a subsidy in cases where it feels the public interest requires the service to continue, but in other cases, will not object to the abandonment.

Under the National Transportation Act, railways are permitted to suspend passenger services on lines where the service is no longer required, or be paid a subsidy of up to 80% of the loss incurred on a line if the Canadian Transport Commission finds the public interest requires that the service be continued.

The first set of hearings will be held in Owen Sound beginning March 31 regarding the following CN trains: Toronto-Palmerston, Palmerston-Owen Sound, Palmerston-Southampton, Stratford-Kincardine, and Stratford-Goderich. The hearings will also deal with CP Rail's application to discontinue its three Toronto-Owen Sound trains. The second set of hearings will be held in Guelph beginning April 8 to hear the CN application to discontinue the two Toronto-Guelph trains.

CN INAUGURATES COMPUTERIZED RAIL FREIGHT SERVICE

CN is instituting computer-controlled freight traffic which will figuratively add 5000 boxcars to its rolling stock. The new system will allow factories to reduce their stockpiles of raw materials. In addressing the Canadian Association of Physical Distribution Management recently, D. V. Gonder, vice-president of CN's Great Lakes Region, said that the new system is so revolutionary and effective that both the railway and industry will have to re-plan work schedules to take advantage of it.

One of the highlights of the new system is a scanner which will be able to "read" programmed tapes on each boxcar. Regardless of speed of the train, time day or night, or weather conditions, the scanners will keep track of every car. Loadings are programmed separately to that the master computer system can tell instantly where cars are, where they are going and what they carry.

Mr. Gonder stated that it would soon be possible for CN to determine its full capacity for action at any time. He said that there has already been a decrease in warehousing needs across the country.

"We can already look to the day when we can offer pricing advantages to shippers who will make use of special equipment when it would otherwise be idle," Mr. Gonder said. He said it may even be possible to stabilize rates over 12-month periods for customers with peak-load delivery patterns.

BRANTFORD, ONTARIO URBAN RENEWAL PLANS CALL FOR RELOCATION OF RAILWAY LINES

The removal and abandonment, and relocation of certain railway lines in and around Brantford, are outlined in a draft plan of Brantford's expected growth over the next 20 years, released recently by city planning officials. Specifically the report proposes the following:

* that the old Lake Erie & Northern Railway line be used as right of way for the Brantford Expressway.
* that the LE&N spur line near Greenwich St. and several CN lines near Water and Wharfe Sts. be abandoned.
* that the TH&B lines in the southeast be relocated to become part of the Brantford Expressway.
* That a new CN line of the Dunnville subdivision to Fort Erie be reconstructed in the eastern part of the city.

The plan proposes that members of the municipal government conduct meetings with railway officials whose companies have rail lines running through the city in an attempt to have many of the lines either relocated or removed.

CP RAIL 1969 NET PROFITS DOWN

Canadian Pacific Railway has reported a slight decline in its net profit for 1969 to $55,772,000 or $3.66 a share from the previous year's $75,757,000 or $3.79. Results include dividends received from Canadian Pacific Investments Ltd. and Canadian Pacific Air Lines Ltd. The 1968 net also includes an extraordinary charge of $8,100,000 transferred to the accumulated depreciation. There was no like item for 1969.

Railway revenues were $580,018,000 versus $562,344,476 while net rail earnings fell to $34,635,000 from $41,259,579. Other income was $25,967,000 versus an adjusted $30,506,000. Year-ago figures were restated because its subsidiary, Canadian Pacific Investments, restated its 1969 earnings to conform to certain accounting charges.

Canadian Pacific Railway said that, in additionto the income reflected in the accounts, the company has 'equity in earnings retained by its subsidiaries' and that total earnings per common share including this equity and extraordinary items amounted to $5.11 in 1969 versus $5.17 a year earlier. Excluding extraordinary items, earnings on this basis were $4.89 versus $5.65. The company gave no actual income figure, which included its equity in earnings retained by subsidiaries.

EXPRESSWAY AND RAILWAY RELOCATION UNDER STUDY IN SAULT STE. MARIE

Plans for the proposed relocation of the CP Rail line through the City of Sault Ste. Marie and the construction of a crosstown expressway have been updated and a new estimate placed upon the costs. The new estimate is $10,429,000, of which the city's share is $2,100,000. The project has been under study since 1962.

A committee, composed of members of the city staff and the provincial highway department, have been meeting for about a month to study the feasibility of the project. Alan Jackson, city engineer and a member of the committee, said that the body is waiting to hear proposals from CP Rail and the Algoma Central. If the CP Rail line is relocated, it would likely be situated between the Third and Fourth Lines inside the city and would use the Algoma Central right-of-way. The two rail lines involved are currently discussing the project.

Consultants are currently studying possible sites for the relocation of the CP Rail line. If the project is approved financial arrangements would have to be made with businesses and industries served by CP Rail if they are affected by the relocation. Some of the concerns affected might want to relocate along with the railway.

If the project is approved after studies are completed in 1972, it would be completed in stages that would take up to 1977 to finish. Included in the first stage would be the purchase of a new right-of-way for CP Rail and the cost of moving businesses affected by the relocation. Also intimated in the intervening stages is the construction of new yard facilities. In the final stage of the project, an expressway would be constructed on the vacated right-of-way of the CP Rail line.

RIGHTS FOR AUTOMATIC OILER SOLD BY CN

World-side rights for manufacture and marketing of an automatic journal box oiler for use in railway operations have been awarded to Ramsey Rec Limited of Richmond Hill, Ont., by Canadian National. The device, designed and built by a CN research team at its technical research centre in Montreal, provides an efficient method of controlling the quantity of oil injected into each journal box, thus preventing oil spillage pollution in the soil. Ramsey Rec has worldwide experience in the design, manufacture and installation of electronic systems.

The automatic oiler is unique in that it can operate with precision on trains made up of different types of cars. Most other oilers used by the world's railroads are capable of servicing only one type of car at one time. The oiler is one of many devices developed by CN researchers. Other patents sold recently include an electronic scale that weighs cars while they are on the move, and an electronic measuring device, used to rapidly establish rates for parcels handled by all transportation modes.

NEW CN TOWER OPENED IN LONDON, ONTARIO

The new 10-storey CN Tower complex was officially opened in London, Ontario, on Friday, March 6th, by Ontario Premier John P. Robarts, QC, and CN President N. J. MacMillan, QC.

In his opening address, Mr. MacMillan stressed the importance of close liaison by CN with municipalities and the various levels of government to ensure most efficient management of its urban real estate holdings. "The results of this policy," he said, "are impressive. This building is the latest example. But the past decade or so has seen completion of the Place Ville-Marie and the Place Bonaventure complexes in Montreal, a CN Tower in Edmonton, an extensive development in Moncton, a CN Tower in Saskatoon, and a number of other projects launched or concluded in other centres. And at the moment, of course, there is the beginning we have made with CP Rail on the Metro Centre project in Toronto--a project that could be, when completed, the largest commercial-residential development in North America."

Three floors of the new building in London house headquarters for CN's Southwestern Ontario area as well as a new passenger station for London. The station, on the gound floor, is modern and easily accessible by car. A well-designed interior with 20-foot ceilings gives the 1300 passengers who use the station daily a feeling of spacious comfort. At the same time, coordinated interior design colours soothe the traveller's eye. Decor in the headquarters offices does away with most interior walls, creating a pleasant, relaxed work environment. Privacy and quiet are retained through liberal use of curved screens, living plants, heavy carpeting and open space. CN, though not the only tenant in the building, is the major occupant. The space occupied by CN's administration offices is also the subject of a revolutionary approach in business decor. Interior walls are virtually eliminated. Desks and suites are separated by curved dividers.

Construction of the building began in April 1968. The structure was erected on 58 concrete caissons sunk 35 feet below ground, a construction technique required on account of wet, spongy, sandy soil. The building is made of reinforced concrete with navy blue porcelain cladding and tinted glass windows. Height is emphasized by rail-like vertical bars running to the roof. Each of the ten floors covers 12,000 square feet. Because of its height and strategic location in the downtown area, the handsome building has become a feature of the London skyline.

The new passenger station in the Tower is the fourth station to stand in the York St. area of London. The first was built in the early 1850's and served till train No. 6, the Intercity Limited pulled by 4-8-2 6000 pulled out at noon, August 15, 1935, for Toronto. The second station, a two-storey rambling stone structure with brick and stone facings, was completed September 1, 1936, and lasted until 1963 when a three-storey building was opened at 250 York St. The ground floor of this building will serve as train dispatching quarters; the remainder is to be leased to new tenants.

On an average day, 1100 to 1300 people will pass through the station --and this figure will climb to 1600 or more on weekends and holidays. Seats in clusters of back-to-back laminated plastic benches accomodate 128 passengers at one time. Access to the train platform is up a slight grade. The new station, in the rear half of the gound floor of the CN Tower, has full height windows trimmed in black and draped with sheer off-white curtains. The interior is painted in light shades of gray; floors are terrazzo tiled. The entrance is on the west side of=the building. Parking facilities for 150 cars are provided indoors at ground level. One-way vehicular traffic enters from York St. at the west end of the building. A drop-off lane allows passengers to be left in the station entrance. Ramps in and out of the building are electrically heated to prevent ice formation in winter. Passengers waiting for trains can relax in the Tower restaurant, which seats 49, features full meal service, and is connected to the station public address system.

U.S. RAIL FREIGHT RATE BOOST STALLED

The Interstate Commerce Commission has ruled that eastern and western railroads won't be allowed to raise freight rates 6% as planned for the 18th of March. The Commission said the roads may file for such an increase with a proposed effective date no earlier than June 2. Meanwhile the ICC said it will investigate the adequacy of rail freight rates in the U.S. The proposed 6% increase would have followed within less than four months a general 6% freight rate increase granted to all railroads last November 18 pending final determination after ICC study.

Double-headed CN 4-8-4's 6219 and 6222 are seen leaving the station at London, Ontario, December 30, 1956.
-- Harold McMann Jr.

* * *

NEW BRIDGE PROGRAM ON PACIFIC GREAT EASTERN

Working on the sound theory that time is of the essence, the PGE's Engineering Division has developed a speedy concept in bridge erection.

Experience gained with the new method, now being used extensively along Howe Sound, will be invaluable when bridge crews head north to begin work on the PGE's new extensions to Dease Lake and Fort Nelson.

H. H. Minshall, Chief Engineer of the PGE, explains the new concept: "With maximum safety and efficiency in mind, we have devised a method whereby a three-unit component span of concrete is preassembled in North Vancouver, and moved, in the same work train, with twin powered gantries to the location site. The heavy duty gantries are used to lower the span into position."

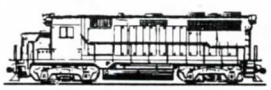
The old time-consuming method involved shipping three separate units of the span to location where each unit was placed in position. The three units were then tension-bolted, sealed, and grouted to form a single simple span crossing.

Mr. Minshall says the time required using the old method would cause undue delay in train movements. For example, he claims the specified curing time under an approved temperature range was impractical. While Engineering was not about to discard vital aspects of bridge erection, a way had to be found to minimize train delays during new span erection.

The new method was developed by PGE when it became apparent early in 1967 that many timber span bridges, particularly along Howe Sound, were nearing the end of their normal life expectancy. Because they were close to salt water, and exposed to weather conditions alternating between wet and dry, it was decided that they should be replaced with material more durable than timber or steel. When concrete was chosen, Engeineering developed the new erection process to speed the program. There followed a period of tests in the North Vancouver Yard and towards the end of last year emerged the quick erection bridging concept.

At the present time some 15 spans, varying in length from 20 feet to 45 feet and in weight from 40 to 84 tons, are assembled as complete spans and ready for erection at points along Howe Sound. Saving in time is impressive. To date three spans have been erected and, using an average, Engineering calculates that the total elapsed time has been reduced to almost half, from 16 hours with the old method to eight and one-hald hours with the new. By this summer, it is expected that total time will have been further reduced to six hours.

Mr. Minshall sums up the new PGE step in concrete span erection this way: "We now have a simple, practical and economical method of handling heavy bridge components and we can do it quickly."



CP RAIL CUSTOMER SERVICE CENTRE FOR BRANDON, MANITOBA

Canadian Pacific recently announced plans to establish a customer service centre in Brandon, Manitoba, centralizing its rail, air, ship, freight, hotel and communications services for southwestern Manitoba and parts of eastern Saskatchewan. CP has applied to the Canadian Transport Commission for permission to establish the centre and to remove its agents from 77 locations, caretaker agents from four others and caretakers from 15 points in the entire region which CP proposes to serve with 13 travelling supervisors--two stationed in Brandon and one each at Portage la Prairie, Neepawa, Binscairth, Rocanville, Moosomin, Souris, Oxbow, Deloraine, Pilot Mound, Winkler, and Carman. Copies of CP's application to the CTC have been sent to those members of parliament and legislature whose constituencies come in the proposed service region. Copies have also been sent to the provincial government and all the municipalities that will be affected by the change.

The CP application to the CTC says that the proposed move is essential under present traffic and marketing conditions. The suggested customer service centre in Brandon will serve CP's rail, air, ship, freight transport, hotel and communication customers with a comprehensive data processing system. The centre will have 24-hour toll-free telephone service to enable customers in the entire region to phone the centre collect. Customers will be able to make their payments for CP services either at the centre, or with one of the mobile supervisors or at any local bank within the region.

The proposed centre will be the eleventh in CP's chain of customer service centres across Canada and will be the only one in Manitoba. Other centres are presently located at Nelson, Lethbridge, Medicine Hat, Calgary, Edmonton, Regina, Agincourt, Ottawa, London and Sherbrooke.

'COUNTESS OF DUFFERIN' TO BE RESTORED

The "Countess of Dufferin", which has been on display in front of the CP Rail station in Winnipeg for the last 60 years, and which was used in the building of the western link of the CPR, has been given a new lease on life.

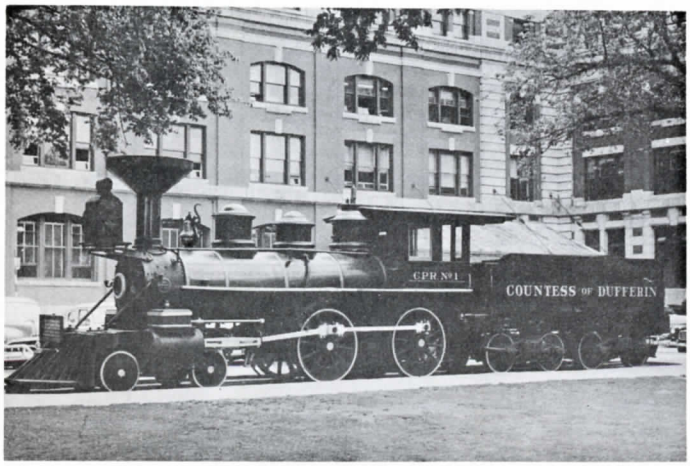
The Winnipeg city council has accepted an offer from James Richardson and Sons Ltd. of Winnipeg to restore the engine as a centennial project to mark Manitoba's 100th year in Confederation. City council's plans to restore the locomotive have been derailed over the years because of budget shortages. The Richardson firm said it would pay all restoration and transportation costs for the Countess, estimated to cost around $15,000.

It is expected that the locomotive will be transferred to the proposed Manitoba Transportation Museum, construction of which is scheduled to commence this spring.

The "Countess of Dufferin" was the first locomotive to arrive in Winnipeg in 1877. It came by Red River barge, and was greeted by the then-Governor General Lord Dufferin and Lady Dufferin, from whom the engine received its name.

After service in building the western link of the CPR, the engine finished her working days in British Columbia, shunting in the yards of the Columbia River Lumber Co.

In 1910 the locomotive was returned to Winnipeg, as a gift of the Columbia River Company and the CPR, and was set up on display in front of the CPR station in downtown Winnipeg.



-- Robert McMann Collection.

BURLINGTON NORTHERN LINES MERGER APPROVED BY U.S. SUPREME COURT

In 1896 railroad baron James. J. Hill sought to merge his Great Northern Railway with the Northern Pacific Railway to form a unified, powerful transportation system. His efforts came to naught because the U.S. Supreme court of the day said no, arguing that elimination of competition between the two roads would not be in the public interest. Similar merger attempts in 1904 came to grief as a violation of the Sherman Antitrust Law, and trust-buster President Teddy Roosevelt.

Now 54 years later, a merger of Great Northern, Northern Pacific, and the Chicago, Burlington & Quincy into one company is at last coming to pass. In a 7-0 decision, the U.S. Supreme Court overruled objections of the Justice Department and approved a merger of the three lines. Together, the three lines will form a 27,000-mile system running across the northern tier of the United States from the Great Lakes to the Pacific, and stretching southward all the way to Texas and the Gulf of Mexico. Because of savings envisioned in the consolidation, the new railroad expects annual operating revenues of $800 million, with assets close to $3 million.

PACIFIC GREAT EASTERN RAILWAY 1969 REPORT

Pacific Great Eastern Railway, owned by the Province of British Columbia, reported a net profit of $764,131 in 1969, compared with $699,949 in 1968. Gross revenues rose to $28,416,627 from $26,215,038. Car loadings total 98,477 versus 91,838 in 1968, and the railways deficit was reduced at Dec. 31 to $368,699 from $6,123,712.

"We anticipate that traffic volume will remain buoyant in 1970," said general manager J. S. Broadbent in the annual report. There has been industrial expansion in areas along the PGE system. Capital expenditures of $11,827,498 were made on extensions of the system to Takla Lake from Fort St. James and to Fort Nelson from Fort St. John. These will get another $21.4 million this year. The 78-mile Takla Lake extension is scheduled for completion this year and the 250-mile Fort Nelson link in 1971. The PGE expects to spend $100,000 this year in preparation for a 340-mile extension from Takla Lake to Dease Lake in northwestern B.C. PGE trains hauled 4,583,954 tons of freight in 1969, compared with 4,130,534 tons in 1968 and 66,041 passengers, compared with 53,765. The PGE operates 1450 miles of track.

NEW YARD FOR CP RAIL

CP Rail has announced plans for the construction of a new rail yard at Thunder Bay, Ontario, that will cover over 130 acres with a minimum of 30 tracks at a cost of approximately $4 million. The first phase of the expansion, scheduled for completion late this year, includes an area devoted to the maintenance and dispatch of cars using the block system of moving grain. This first phase will cost $750,000.

FIRST UNIT TRAIN LEAVES EAST KOOTENAYS

On March 19 the first unit train to carry coking coal from Kaiser Resources' new mining operations left the East Kootenays enroute to the West Coast carrying high grade coking coal for shipment to Japan. G. E. Balsley, vice-president and general manager stated that the new mine was in operation, and that the coal plant had begun its shakedown and was expected to be running at full capacity with a few weeks. The port facility at Roberts Bank is ready and awaits the first shipment of coal as soon as the rail line is completed early in April. In the interim shipments are being made from Port Moody.

DESIGN CONTRACT AWARDED FOR 300 MPH AIR CUSHION VEHICLE

The award of a $3 million design contract to the Grumman Aerospace Corp. for a 300 mph tracked air cushion vehicle was announced by U.S. Secretary of Transportation John A. Volpe, in a speech to the National Press Club March 17th. Volpe also announced that a contract would soon be let for a demonstration program involving a 150 to 200 mile an hour tracked air cushion vehicle for intra-city journeys of 25 miles or less. The lower speed vehicle was expected to be operational by late 1972.

Plans have already been announced for a high speed test facility at Pueblo, Colorado, on a 20-mile oval track and also on a 20-mile straightaway. The department last December unveiled a 250-mile an hour test vehicle powered by a 2500 hp linear induction motor which eliminates pollution and noise.

THE PNEUMATIC TUBE -- A RAILROAD SUBSTITUTE??

It was predicted recently, that by the year 2000, rail passengers may be travelling underground in pneumatic tubes. This prediction was contained in a speech given by the manager of the customer research division for Canadian National Railways Great Lakes Region to the Allied Horticultural Trades Congress in Toronto.

Most city planners, according to A. J. Gillies, agree that public transportation will be strained to capacity long before the turn of the century and that crowded conditions will necessitate the banning of trucks from city streets.

To transport goods and people from the interior of a city to the perimeter, Gilles forces the tube system as a solution operating at speeds up to 350 mph while propelling aluminum torpedoes on a cushion of compressed air. Gilles also feels that the use of a pneumatic tube transport may be more extensively applied and may result in a rapid and economical method of moving passengers and freight between metropolitan areas.

Disagreeing with many theorists, Gilles stated that "the railway passenger business will make a comeback within 25 years." This will be accomplished by the use of new methods designed to permit trains to operate at higher speeds than those they operate at present.

Some of the methods that may be used to decrease the time required for a rail journey are linear induction engines coupled with a vehicle suspended on an air cushion or magnetic field. He points out that air suspension has already been developed for the British hovercraft.

Gilles said that the box car system of transporting goods would probably be obsolete by the year 2000 and that goods would be moved from one place to another in containers built with the capacity of tranferring from one mode of transportation to another with equal felicity.

"The trend toward using rail for high-volume, high-speed movement between major railheads, and highway transportation for flexible over-the-road, door-to-door distribution will likely continue," he said. Tracks will be welded end to end between railheads, offering a quiet and smooth passage for the trains using them.

Routes between railway stations will be straighter and grades will be reduced to a minimum, all in the interest of realizing faster, more trouble free and more comfortable transportation. Gilles stated that locomotives that are used may well be nuclear powered or that more nuclear energy to provide electric power to trains will be used.

"Cars," he predicted, "will be cut out, switched--possibly sideways --and loaded and unloaded automatically by radio-controlled devices." Continuing a general trend toward computerization and automation, railway yards will adopt these procedures to a point where the human element will be almost non-existent. Arrivals and departures will be measured by radar on closed-circuit television in order to avoid collisions; should a collision become imminent, automatic brakes will be activated by a computer.

ALUMINUM NOW WIDELY USED IN RAPID TRANSIT SYSTEMS

The aluminum industry, which has been finding more and more applications for its light metal in the rapid transit industry, is watching the development of the more exotic systems with keen interest. These systems include aerotrains as well as the high-speed tractional equipment. They all have something in common; they make liberal use of aluminum. Aluminum offers cost-saving advantages in construction. The metal may not be cheaper than mild steel, but it often easier to work and can result in fewer man hours in the plant. The metal can also be extruded, which opens the way to a wide variety of design and building techniques. Extrusion combined with welding has produced some impressive results for the Germans, Swiss and Japanese.

Among the more exotic rapid transit developments which the aluminum industry is watching are the French Aerotrains, which have emerged from half-scale experimentation to the full scale operation. Two full-scale versions have been built. One is the 'Orleans Project,' a raised track and 80-seat propellor-driven vehicle capable of190 mph. The other is the 'Suburban Line', a 44-seat vehicle which is equipped with a linear electric motor. Both use air cushion systems to hover above the tracks.

The Japanese are also working on linear induction systems. They are making use of light metal in their plans for future high speed lines. High running speeds require bodies that are more rigid, yet with light axle loads. Aluminum alloys can do the job.

BORDEN FERRY TO RUN AT WOOD ISLANDS

The Federal Government is considering transfer of the carferry Lucy Maude Montgomery to the Wood Islands-Caribou service when docking facilities are expanded at Wood Islands and Caribou, which at present are not capable of providing effective berthing for the Lucy Maude. A report from Ottawa says the Nova Scotia government has agreed to contribute a sum not exceeding $125,000 for improvement of the terminal at Caribou. Dredging at both terminals would be required, together with reconstruction of a berth at Wood Islands. Approximate capital cost of these changes would be over $750,000, and there would be additional charges for maintenance dredging, it was suggested.

Local sources have suggested that the Lucy Maude Montgomery may be transferred after the delivery of two new car-ferries for the Borden-Tormentine expected this year. But before the Federal Government switches the Lucy Maude, it would want to be assured that removing the vessel would not jeopardize transportation on the Borden run.

WORTH NOTING...

* The town council of Gananoque, Ontario is looking into the possibilities of leasing the old CN station. The building is thought to be suitable for a restaurant or boatline reception point.

* A new plant for Fairmont Railway Motors Ltd., is under construction in Islington Ontario. The company expects occupancy of the building in late May or early June.

* CN recently called tenders for the construction of an extension to the diesel shop at Senneterre, Quebec.

* The City of Regina, Saskatchewan, has asked for financial assistance from the Federal government for relocation of rail lines leading into the city. The provincial aogvenment has indicated support.

* CN has been asked to relocate the St. Jerome freight line through the proposed site for the international airport at St. Scholastique, Quebec. The rail line runs through the location of a runway.

* Tenders have been called for the construction of rail carferry terminals at Sarnia, Ontario, and Port Huron, Michigan.
(See Dec. '69 NL, page 126.)

* CN has called for tenders for the construction of the following facilities at Calder Yard, Edmonton: transportation centre, hump retarder tower, and addition to car shop.

* The engineering firm of Golder Soil Testing Co. of Toronto, have been retained by Niagara Monorail Ltd., to determine locations of support structures for the monorail. The $12 million monorail facility will run 4 miles between Chippawa and Queen Sts. in Niagara Falls; the first phase will run from Clifton Hill to Heritage Tower at Falls View.

ALTERNATE RAIL FERRY TERMINAL FOR NEWFOUNDLAND-NOVA SCOTIA FERRY SERVICE

An alternate rail ferry terminal will be built at Mulgrave, Nova Scotia, on Canso Strait to provide emergency winter facilities for the Newfoundland-Nova Scotia ferry service. Tenders for this project were recently called for by the Department of Public Works of the Federal government.

The terminal is required when heavy rafting ice blocks the North Sydney piers. Some years, the ice rafts to a depth of 30 feet and is too heavy for icebreakers; it can only be cleared by a combination of wind shift and tidal action. Estimated cost of the Mulgrave facility is $1.3 million.

Specifications for the project call for construction of docking piers and on-and-off loading docks, as well as support facilities. When completed the terminal will be able to accomodate rail-car ferries which normally operate between Port Aux Basques, Nfld., and North Sydney. Both side and end-loading vessels are used in the service as well as some chartered cargo ships.

CN TO ADD DOCKING FACILITIES AT YARMOUTH FOR NEW FERRY

Canadian National is in the process of having additional docking facilities provided at Yarmouth, Nova Scotia, to accomodate the new ferry scheduled to go into operation this summer between Yarmouth and Portland, Maine. The new ferry will be operated by a Swedish company.

Canadian National operates the ferry Bluenose between Yarmouth and Bar Harbour, but this is a side-loading vessel. The new German-built ship loads through the stern and unloads through the bow. This means that modifications to the existing berth will have to be carried out. Plans call for a floating steel pontoon 100' by 70' to carry highway traffic to and from the new Prince of Fundy ferry. Sectional barges will be welded together to form the pontoon. It will move with the tide to accomodate the end-loader, and will be connected by a link span to the existing terminal parking facilities at Yarmouth.

KNOW YOUR RAILROADING?

What do the markings on the sides of box cars indicate?

In addition to the boxcar number, railroad trademark, and name or initial of the boxcar's owner, the following abbreviations have been adopted as standard markings by railroads and are stenciled on both sides of the car.

CAPY - capacity in pounds; LD LMT - load limit in pounds; LT WT - light weight in pounds; EXW - extreme width; EW - eaves width; IL - inside length; IW - inside width; IH - inside height; CU FT - cubic foot capacity; BLT - date built.

The load limit is determined by a formula based on size of journal bearings less the light weight of the car. Capacity is a nominal round figure somewhat less than the load limit.

What is meant by "work equipment" in railway service?

Work equipment is rollong stock designed especially for the construction and maintenance of the railroad, such as locomotive cranes, derrick cars, pile drivers, steam shovels, rail unloaders, dump cars, ballast spreaders, ditchers weed burners, weed sprayers, inspection cars, instruction cars, dynamometer cars, clearance cars, scale test cars, hand cars, track sweepers, rail defect detectors, camp cars, supply cars, and snowplows.

THE GREAT PLAINS RAILFAN CONGRESS

The Cornhusker Chapter of the NRHS Inc. is sponsoring a weekend railfan congress, October 3 & 4, 1970, at the Hotel Lincoln, Lincoln, Nebraska. There will be a series of Round Table discussions on subjects of interest to all types of railfan and model railroad fans. In addition there will be general sessions with speakers of national renown in the railroad or railroad hobby field. The Round Table Discussion sessions include the following: Interurban Lines, Electric Railroads, Diesel Locomotives, Tokens, passes, etc., Train Orders, Model Railroads, Timetable Collecting, Lantern and Switch Key Collecting, and Railroad History. In addition there will be trading sessions. For full information contact:

S. C. Downs, Executive Secretary,
Great Plains Railfan Congress,
901 Dale Drive, Lincoln, Nebraska, 68510.

THE LITERARY CORNER

Thomas Brassey: Railway Builder Charles Walker, Frederick Muller, London England, 1969, 183 pages, $6.95.

This recently published book is one of considerable interest to railfans. Between 1837 and 1870, Brassey built 140 railroads totalling over 6000 miles. Of this mileage approximately one-third was in Great Britain with the remaining two-thirds in scattered parts of Europe, India, Australia, South and North America. In addition to railways he also engaged in such other engineering projects as roads, bridges, railway tunnels, stations, docks and piers, waterworks and drainage and sewage systems, again on four continents.

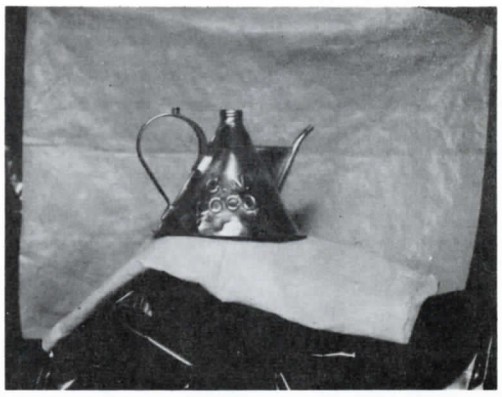
Despite the fact that most of his railway contracts were in Great Britain and Europe, his two longest were the Grand Trunk Railway of Canada (539 miles) and the Delhi Railway in India (304 miles). Neither of these was a financial success. The author suggests that one reason for the lack of success of the Grand Trunk was that Brassey did not completely appreciate the distances, the costs and lack of population in North America. In India, costs were again high as all skilled workers had to be brought in and although population density was high, most of the people were not in a position to use the railway to the extent that Europeans did.

Although Brassey built railways and other engineering works on five continents and travelled extensively in Great Britain and Europe, his only trip away from there was his visit to the Grand Trunk Railway in 1856. Brassey thus learned personally some of the problems associated with North American railway building. Brassey was associated with Sir Samuel Peto and Edward Betts on this project as he was in a number of other undertakings. The Grand Trunk Railway is the only line to which a complete chapter is devoted.

A considerable portion of the book is devoted to the personal relationship between Brassey and others who helped to make his work successful. This relationship varied from that with his navvies to that with such eminent engineers as George Locke and Robert Stevenson. With the former of these he worked on many projects. His work in Europe brought him into contact with such leaders of the time as Count Cavour, King Victor Emmanuel of Sardinia and Louis Napoleon of France. Brassey was also involved indirectly in a number of political disturbances of the day including the Crimean War, the Schleswig-Holstein affair and the Unification of Italy.

This book gives an interesting account of the problems of early railway building over 100 years ago. Its interest to the Canadians is particularly that associated with the Grand Trunk Railway. The reader also obtains a fascinating look at the engineering problems of the time and the problems of political development in railway construction.

-- John H. Walker.



INFORMATION WANTED

UCRS member Ron Morel recently acquired this oil can for his railroadiana collection, and would like to find out more information about it. There are actually two such cans in his collection, each made of light-gauge metal soldered together, 5" high with 7"bottom diameter, a 3½" spout. A check of railway supply catalogs back to the early 1920's turned up no information on the cans. As they are stamped "CN Loco", it is possible that they are ex-Canadian Northern locomotive oil cans? If anyone has information on these cans and can help Ron out, they may contact him at 23 Devonshire Avenue, Kapuskasing, Ontario.

EQUIPMENT NOTES...

CANADIAN NATIONAL MOTIVE POWER NOTES

* Deliveries of SD-40's continue from the Diesel Division of General Motors of Canada:

5143 -- Mar. 7/70
5144 -- Mar. 7/70
5145 -- Mar. 13/70
5146 -- Mar. 13/70
5147 -- Mar. 20/70
5148 -- Mar. 20/70 (All class GF-30h)

* Units 4154 and 4155 have been transferred from Spadina to Calder (Edmonton) in exchange for units 4424 and 4425 (See Jan. 70 NL Page 8.).

* H-6-b 4-6-0 No. 1521 (ex CN 1274, ex CNoR 1274) was sold by the Ontario Government to Mr. R. Bennatt of Croswell, Michigan, on Nov. 14, 1969. The locomotive was stored for a time prior to shipment in CP Rail's John Street roundhouse. The engine was purchased by the province some years ago (intended for display in the Ontario Science Centre) from Andrew Maclean of Gravenhurst, who had it displayed--in red and green livery--adjacent to Highway 11 in that town.

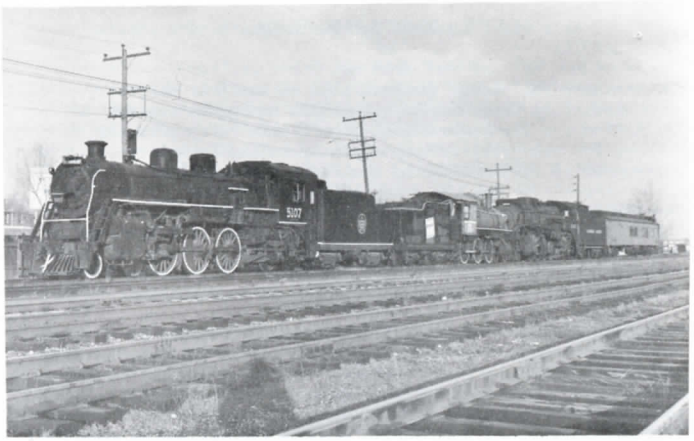
BRIEFLY.....

* The National Harbours Board in Montreal recently called tenders for the leasing of two diesel switching locomotives.

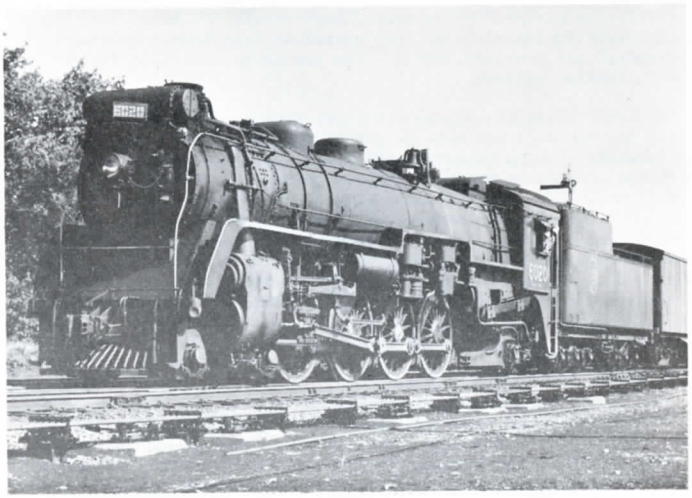
WHITE PASS & YUKON TO BUY NEWFOUNDLAND PASSENGER EQUIPMENT?

The White Pass & Yukon, along with several railfan groups in the United States have expressed interest in purchasing equipment from the Newfoundland passenger train service, according to G. McMillan, Canadian National area manager in St. John's, Newfoundland.

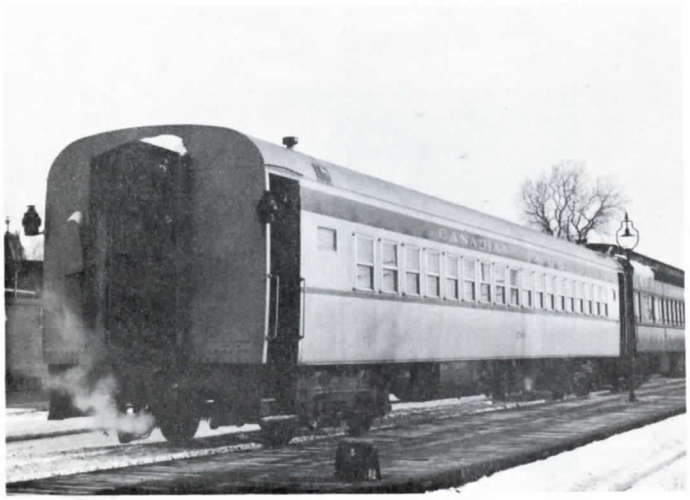
Mr. McMillan said the cars would go on sale later this year through CN Montreal headquarters, but Newfoundlanders would be given an opportunity to place bids. In approval of CN's application to abandon the passenger service last July, the Canadian Transport Commission said the railway had to keep on hand enough equipment to operate two passenger trains in an emergency. However, the CN replacement bus service has proven reliable, and permission was given to sell the equipment.



CN 5107, 1521 (recently sold -- see item), and CP 5397 are seen in storage at CP Rail Lambton Yard, November 15th, 1969.
-- John D. Thompson.



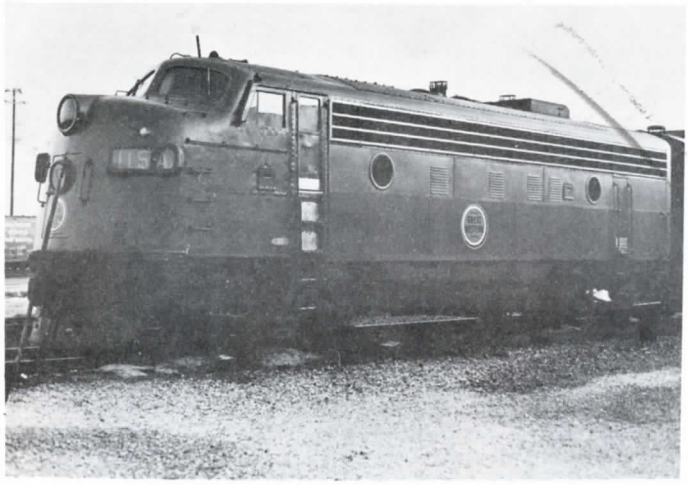
Lacking the "beetle-browed" overhanging feedwater heater that characterized other engines of her class, CN U-1-b 4-8-2 6020 shows off her modified front end, a result of experiments in 1939 which led to improved drafting and steam flow arrangements. These refinements were incorporated in designs for the 6100 and 6200-series Northerns built in the early 1940's.
The photograph was taken at Bayview, August 11, 1956.
-- J. Walder.



CP Rail coach 1700 is the latest addition to the Montreal Lakeshore commuter stock (prior to delivery of the bi-level equipment). The car was built for the Calgary-Edmonton service, handled by 4-4-4's, which had the luxury of this full-length smoker. After finishing on this service, the car was converted to a rules-instruction car, based at Fort William. In 1968 it came to Angus where it was repainted and fitted out with aluminum double-sash (windows that open in any weather). It is now used regularly on trains 270 and 281 (Vaudreuil). The car is seen at Westmount on train 270 on February 28, 1969.
-- Robert J. Sandusky.

A recent visitor (January 18, 1970) to CP Rail Agincourt Yard was Penn Central U-boat 2910. GE units are rather rare visitors to the Toronto area.
-- David M. More.

CP RAIL LEASED POWER ON PARADE.....



Chicago Great Western F-7a 115A at Agincourt Yard.
-- J. Bryce Lee.

Lake Superior & Ishpeming GE U-23C 2300 at Agincourt Yard, January 24, 1970.
-- David M. More.

Boston & Maine RS-3 1508 at Agincourt Yard, January 1970.
-- David M. More.

Bessemer & Lake Erie Alco DL-702 885 at Agincourt Yard.
-- David M. More.

Illinois Central Alco C-630 1101 on a London extra about to depart Agincourt Yard.
-- David M. More.

The National Transportation Act:

LESS REGULATION — MORE COMPETITION

Deregulation of transportation is alive and well--and thriving--in Canada.

This is not to say that there are no restrictions whatever. But the National Transportation Act of 1967 is giving Canadian railways a notable degree of flexibility in rationalizing unprofitable passenger services and branch line operations, either through abandonment or subsidy.

The Act also seems well on the way to making the railroads more competitive by removing most restraints on freight rate-making. There has not been a single complaint received under Section 16 of the Act--the one that provides for complaints of freight rates believed to be prejudicial to the public interest. Neither had a single application been filed for the fixing of a maximum rate. There were only a handful of complaints that certain rates were non-compensatory.

Overall, Canadian railway men are pleased with the legislation. Says Howard J. G. Pye, commission counsel for Canadian National:

"The Act reflects a forward-looking policy. We may now operate just exactly like any other commercial enterprise. We can develop business now that would not have been possible a few years ago. We can compete more fully with other modes, and develop rate structures that are competitive."

At CP Rail, the passage of the Act is felt to be a long step forward. Comments F. S. Burbidge, vice-president marketing and sales:

"The Act has made competition something of a whip to drive the railroad industry, and to some extent shippers, to come to grips with real life situations.

I think the main thing is the opportunity the Act provides for the railways to design and price their services the way a normal commercial concern would operate, without having to face a regulatory agency acting under laws designed for a long-dead, monopolistic era. The result should benefit both shippers and the railways.

Naturally our attempts to adapt to the new environment are moderated by commercial prudence. It is a process of education, both of ourselves and our customers. But progress is here. A number of rates for given movements have been reduced, because the pricing freedom we now have gives us an incentive to redesign the manner in which we handle these movements. In this way, we can gain better plant utilization and increase our earnings, and the customer gets something better than before."

Adds S. M. Gossage, vice-president of Canadian Pacific and senior executive officer of CP Rail: "We have the opportunity of experimenting with different types of rates, such as long term contract rates, directional rates, seasonal rates, and rates tied to operational performance. With this and the ability to exploit the use of intermodal rates, we can design whole new distribution systems for customers."

The Canadian Industrial Traffic League has expressed satisfaction with the new Act.

The developments and implications of the National Transportation Act are of more than passing interest to American railroaders, as the U.S. Department of Transportation attempts to shape legislation that will obtain passenger subsidies for American railroads and correct some inequities in freight ratemaking to make railroads more competitive.

In the view of J. W. Pickersgill, president of the Canadian Transport Commission, "It is not an exaggeration to say that until the passage of the 1967 Act, the principles and methods of regulating transport in Canada had been boradly similar to those in the United States, and that our public had a similar, and perhaps even greater preoccupation, or even obsession, with railways."

Then he elaborated: Rates were supposed to be 'just and reasonable' and carriers were to avoid 'unjust discrimination and undue preferences among shippers.' The regulatory body had power to disallow tariffs or rates and to require carriers to file rates specified by the regulatory body.

Mr. Pickersgill noted some differences: In Canada, from the beginning the railroads were instruments of national policy with obligations imposed upon them based no on ordinary commercial principles, but designed to unite the country or make the economies of certain regions viable. An example is western grain moving to export positions at 'Crow's Nest Pass rates', established in 1897 to foster development of the prairie provinces. These rates are still in effect and embedded in Canadian law; they represent the big exception to ratemaking freedom.

Another difference between the U.S. and Canada is that north of the border regulation has never been based on the principle that transportation companies should operate only in one mode. Principal Canadian lines, almost from the beginning, have operated steamships, hotels, express and telegraph companies, and more recently truck lines and airlines. Most acquired trucking companies are operated as separate subsidiaries, and railroads are required to extend the same rates to other trucking companies for moving their trailers by rail as those paid by their trucking subsidiaries.

Mr. Pickersgill, who was principal author of the 1967 Act, outlined the background which lead to the legislation:

"In the postwar period, a long series of general railway freight rate increases, occasioned largely by steadily mounting costs, had been authorized by the then Transport Board. These horizontal rate increases tended to fall most heavily on those parts of the country where competition in transportation was relatively least effective. Broadly speaking, these areas were the Atlantic and Western provinces. Ontario and Quebec, where trucking was highly developed, escaped the full effects of these rate increases."

In 1958, the government, faced with a further 17% increase in freight rates, rolled back the increase to 8%, compensated the railways with a subsidy, and let it be known that no further general increase would be approved. Additional subsidies were given as temporary expedients pending a review of policy and regulation.

The MacPherson Royal Commission was created to investigate and recommend changes to fit the environment of the 1960's. It found first that the Canadian railroad industry for the most part could no longer be considered 'monopolistic', and concluded that there was little need to maintain the substantial regulatory framework built up when railroads had a virtual monopoly of land transport. The Commission saw the desirability of loosening the restraints so railroads could compete effectively with other modes of transport--in other words, competition itself, for the most part, would be an effective regulator of transportation pricing.

The Commission noted that some of the inequities and rigidities in freight rates could be traced to the need felt by the railroads to generate revenues to offset burdens imposed upon them by law, custom, and public policy. These were associated with the operation of passenger services and branch lines with low traffic density--a reflection of the days of near-monopoly.

The Commission recommended that rate regulation be reduced to insuring only that--as a minimum--service at less than cost should not be permitted; and--as a maximum--that a ceiling should apply where a shipper could demonstrate 'captivity', i.e., that there is no alternative competitive service by other than rail.

Another recommendation was that where railways bore burdens of facilities or services in the national interest, losses incurred should be subsidized by public funds.

Very naturally, this proposed reversal of traditional concepts of regulation brought extensive debate in the early 1960's. At the same time, the problems hampering the industry and the economy were deepening. By late 1966, public opinion was ripe for legislation, based largely on the major recommendations of the commission.

The decision had meanwhile been made that if competition were to be accepted as the force to maintain balance between availability and rates, then all modes should be treated equally. It was a logical step to propose a single approach to the regulation of all modes, rather than continue the different standards and practices of several agencies.

When the Act was finally passed, it provided for establishment of the Canadian Transport Commission to carry out the responsibilities of the legislation. The 17 appointed members are grouped into committies, each with authority delegated by the commission over a particular mode of transport.

In effect, the Board of Transport Commissioners became the Railway Transport Committee, the Air Transport Board the Air Transport Committee, and the Maritime Commission the Water Transport Committee. Other committees were also established for Motor Vehicles and Commodity Pipelines. Unified approach to regulation is achieved by requiring commissioners to sit on more than one committee; by a vice president superintending all committee work; by regular formal meetings of the commission to consider and plan work of the entire commission and staff; and by the use of common administrative and technical advisory staff services wherever possible.

The Commission has specific powers to coordinate and harmonize operations of all transport services, to advise the government in the development of policy, and to conduct major research into transportation planning. A vice president is in charge of this research, which includes economic, financial, and technological studies and evaluation.

The declared goal of transportation policy was an economic, efficient, and adequate transportation system, making the best use of all available modes of transportation at the lowest cost. This policy rested on four principles: (1) Competition between modes, unhampered by regulation wherever possible, was necessary and right; (2) services imposed as a public duty should be compensated; (3) any mode receiving the benefit of facilities or services at public expense must pay a fair proportion of their real cost; (4) rates charged by any mode must not create disadvantages between points in Canada other than those inherent in location or volume of traffic, scale of operation, or type of traffic involved; and must not be an undue obstacle to regional interchange or development or to export trade.

Under the new law, the commission has defined on a national basis what are 'passenger train services' within the meaning of the Act, and pinpointed the 'mimimum service' that must be operated by each railroad between any given points. For example, Montreal-Ottawa responsibility is described for each line as 'a daily service'. (This, of course, would have to be consistent with Section 315, which says that companies must provide adequate accomodations, facilities, and service for the traffic offering.)

Heretofore, to take off a single train, long hearings were inevitable and might or might not result in discontinuance of the money-losing service. Under the new procedure, the railroad files with the commission notice of its intention to discontinue service below the minimum, and files its revenues and expenses. The commission, after due consideration, and after checking deficits against its cost formula, finds and publishes the 'actual loss' and decides whether the service should be discontinued, or continued in the public interest with an 80% subsidy. The Act does not so provide, but Mr. Pickersgill has said that no train service will be discontinued without a public hearing.

The railroad must file with its application supporting information, including a statement on alternative passenger-carrying services available or in prospect, and a statement about the possible effect on other passenger carriers of halting the service, the future passenger service needs of the area, and the feasibility of continuing to operate all or part of the service by different methods of operation.

Under the Act, the Transport Commission was required to promulgate a costing order for freight rates, passenger trains, and line abandonments--in effect to prescribe costing procedures. Public hearings were held, and a judgement and order entered in August 1969. This order or formula has been challenged by Canadian Pacific in the Supreme Court and the case is likely to be heard this spring.

CP questions, on legal grounds, the commission's treatment of income tax in calculation of the cost of capital; treatment of common costs in calculation of passenger train subsidies; and refusal in some cases to include as a cost depreciation calculated in accordance with usual accounting principles.

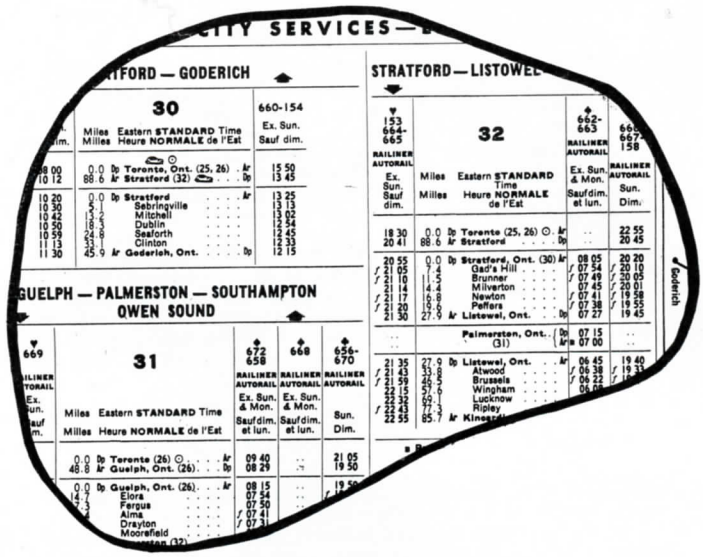
Late last year, Canadian Pacific and Canadian National filed applications with the Commission to abandon 31 passenger train services. CP, citing losses of $30 million in 1968 on its passenger services, asked approval to drop all its passenger service except for Montreal-area commuter runs. CN asked to drop 13 regional services on which it lost $11.6 million. (Complying with a special provision in the Act, CN asked the commission to certify its commuter loss, and make appropriate recommendations to the federal government. Hopefully, monetary assistance will result.)

CN did not ask to drop its transcontinental services, as did CP, but the government-owned railroad is reducing its mainline services during the winter months. It advised the commission it would discontinue operation of one of its two transcontinental trains, the Panorama, between Winnipeg and Vancouver between January 7 and June 15. Then for the summer season--June 15 to September 15--the remaining train, the Super-Continental, and a second Super-Continental will be operated.

CN officials still insist that they aim to 'eliminate passenger deficits, not passenger services.' Nor have they given up hope that operating difficulties with the revolutionary new Turbotrain, leased from United Aircraft, can be overcome.

-- MODERN RAILROADS.

Winter Timetable Notes



by John D. Thompson.

As the first week of 1970 slipped by, railfans were amazed to perceive a brand new CN timetable on counters at the railway's stations. Although this was not the first time that Canadian National had published a system schedule during the winter season, the scope of the timetable which took effect January 7th, 1970 is far beyone that of any previous timecard.

The new publication is intended to cover passenger train schedules through the summer of 1970 up until reversion to Standard Time on October 24th. Its issue was necessitated by the magnitude of schedule changes which took place in the months following the issue of the Fall 1969 timetable. The majority of these alterations and deletions occurred on January 6th, 1970.

Twenty years ago, both CN and CP published as many as four separate system schedules annually. In addition to the familiar Spring and Fall timetables issued at the time change, a Summer timetable made its appearance on June 23rd, and occasionally a Winter schedule was issued in December or January. The purpose of the former publication was to show Summer only operations such as the CPR's "Bala Special" or the Port McNichol boat train or the CN "Highlander" to Haliburton.

A Winter timetable would be published if significant alterations had been made to train schedules since the Fall timetable had been issued. During this era Daylight Saving Time ended on the final weekend of September instead of in October as is currently the case.

Looking from East to West in the new 48 page timetable we notice that mixed trains M-203-4, which serve the 79 miles between Badger and Deer Lake, Newfoundland, have been listed for the first time, although they commenced operations following the demise of the trans-island "Caribou" on July 2nd. They serve an area which cannot as yet be covered by buses, due to a lack of parallel roads and include the scenic run over the moor-like terrain known as Gaff Topsails. On the westbound trip, there is a wait of ten minutes at Badger and two hours and 23 minutes at Deer Lake, these being connections of sorts with the cross-Newfoundland buses. Eastbound, the passenger must spend twelve hours and ten minutes at Deer Lake in order to board the train at 0430. However, anyone rash enough to continue east of Deer Lake need wait only three and one half hours to effect a transfer from the train to the bus. This train is in reality a trans-island express freight carrying passengers on this short stretch only.

We now come to Table 4, covering the Halifax to Montreal service. The Gaspe trains Nos. 118-9, the "Chaleurs", are shown as being combined with the Ocean Limited westbound and the Scotian eastbound between Montreal and Matapedia, Quebec. Between June 24th and September 7th the Chaleur will operate as a separate train from Montreal to Gaspe, with coaches, a cafe-lounge and a twelve-section one-drawingroom sleeper (called by CN a family room), being set out at Matapedia, Quebec for forwarding to Campbellton, New Brunswick, thirteen miles down the line. Interestingly enough, the westbound sleeper from Campbellton to Montreal, carried in the summer Chaleur is a ten-roomette six-double bedroom car instead of an open section sleeper as is the eastbound one.

The westbound Ocean Limited No. 15 leaves Halifax an hour earlier and reaches Montreal an Hour later, on account of traversing the old Intercolonial Railway route via Newcastle and Bathurst, New Brunswick, instead of the shorter route via Edmunston on which it operated until this latest change in the schedule. The eastbound mate of the Ocean Limited departs Montreal at 1720, one hour and five minutes later than previously, arriving Halifax two hours later than before. The schedule of the westbound Scotian is longer than before. Since the Ocean no longer operates via Edmunston, two separate non-connecting Railiner operations have been inaugurated to replace it on the central New Brunswick line. The new trains are known as 618 & 619 between Moncton and Edmunston, and 617-623, 122-616 between Montreal and Edmunston. The 0730 westbound departure from Moncton and 1215 departure from Montreal now permit a daylight ride over the scenic line, although anyone making a through trip would have to spend the night in Edmunston. Of course a through trip beyone Edmunston is possible only by people entraining between Moncton and Edmunston, as residents of the former city can avail themselves of the Scotian or Ocean. The westbound Railiner makes a connection at Montreal with No. 65, the afternoon Rapido for Toronto. The new service between Moncton and Edmunston does not permit as convenient connections to Fredericton as were possible when the Ocean operated over this line. CN has charter arrangements with the SMT bus company for bus service between Newcastle, McGivney and Fredericton. The eastbound Ocean reaches Newcastle at 0810, and the bus leaves at 0920, arriving Fredericton at 1225. When Nos 14 and 15 operated over the central New Brunswick line, a connection was made with the bus at McGivney which got one into Fredericton at 0700. Northbound from Fredericton, the morning bus connects with the eastbound Scotian at Newcastle, while the afternoon bus provides a connection at this town with the westbound Scotian for Montreal. Passengers entraining from the eastbound Ocean at Newcastle at 1830 can catch the bus for Fredericton 20 minutes later. A look at Table 9 covering the Halifax-Truro-Sydney service reveals that the Nos. 18 and 19 are still being used between Truro and Sydney. These numbers formerly designated the Cabot which was a separate train operating between Montreal and Sydney; however in 1970 no name is given the Sydney train. The eastbound Ocean Limited carries the coaches, lounge car and sleepers bound for Sydney as far as Truro. They are set off there and continue on to Sydney as train No. 18. Returning to Montreal, the Sydney cars are picked up by the Scotian at Truro. In addition to the full service provided to Sydney by the erstwhile Cabot, there is also a daily Railiner operation running straight through from Halifax. Formerly these RDC's only operated to Truro. The westbound Railiner from Sydney, No. 603-2, has switched schedules with the conventional train No. 19. The RDC leaves Sydney at 0645, arriving Halifax 1355. By contrast No. 19 leaves at 1050 arriving Truro at 1750. Since its equipment continues on to Montreal at 1825 as part of the Scotian, passengers from Sydney wishing to continue to Halifax must wait two hours until No. 12, the eastbound Scotian, puts in an appearance. Since No. 601-4 now leaves Halifax at 1820 for Sydney the connection with No. 18 at Truro is now made by riding the Ocean from Halifax to Truro. Railiner 611, Moncton-St. John, has been rescheduled to leave Moncton at 1025 (connecting with the Ocean) and reaching St. John at 1210. Thus it misses a connection with the CP Rail ferry "Princess of Acadia" for Digby, and in turn the Dominion Atlantic Railway. This change was necessitated by the new schedule of the Ocean Limited, which does not arrive at Moncton until 0955.

Moving westward, we cast an eye upon the CN services of La Belle Province, and notice that Railiner No. 670 now leaves La Malbaine at 0730, arriving Quebec City at 1005. This gives patrons of the train an extra forty minutes in which to sleep, compared to the previous departure time of 0650. On the Quebec City-Chicoutimi route, a new mixed train service has been inaugurated, Nos. M275-6, between the Capital city and Riviere-a-Pierre, 56 miles distant. This train runs north on Tuesdays & Thursdays, south on Wednesdays & Fridays. This mixed will be replaced from April 25 to October 24 by conventional train No. 176, operating southbound on Monday, Wednesday and Friday over the entire run from Quebec City to Chicoutimi. Northbound, train No.199 will operate on Saturdays only, leaving Quebec at 0705, arriving Chicoutimi 1515. On Tuesdays and Thursdays during this time No. 177 will operate from Quebec to Chicoutimi, making its departure from the Capital city at 1130, as does M275. A misleading impression is given in the timetable by showing the day "Sat." underneath the train No. 177, at the top of the time column, although during the summer it does not operate on this date. After the fall change of time, there will be through service from Quebec to Chicoutimi only once a week, provided by trains 176-7 on Monday and Saturday. In addition, mixed trains M275-6 will operate twice a week between Quebec City and Riviere-a-Pierre. Prior to January 7th, through service on this line (Quebec to Chicoutimi) was tri-weekly.

The CN station at Charny, 14 miles from Quebec City, becomes a hive of activity around noon. Cambellton to Montreal local train No. 123 arrives first at Charny 1241 (standard consist with baggage car, two coaches and snack bar-equipped coach lounge), followed by Edmunston Railiner 617 at 1245 which couples onto the rear of the train for the thourgh run to Montreal (two Railiners are equipped with snack bar--specially installed steam lines permit using 123's heat). Single unit Railiner 633 arrives last (from Quebec via St. Lawrence Bridge) and supposedly also couples onto rear of the consist for run into Montreal. (When operation was observed on January 30th, No. 633 merely pulled over to the south side of Charny station and passengers walked across the platform to the waiting 123.)

The only change in the Ottawa-Montreal service is that provided by the eastbound Super Continental, which departs the nation's Capital at 1540, arriving Montreal 1640, a change brought about by the rescheduling of trains 1 and 2.

Moving westward to examine the rail service in Canada'a largest province, we see the same Montreal-Toronto schedule as introduced last fall, although hopefully the Turbotrain will make a reappearance on this heavy route before the summer is out.

CN has overcome the problem of denoting Eastern Standard Time in Ontario and Michigan for the winter, followed by Daylight Saving Time in the summer as pertains to the Toronto-Windsor-Sarnia-Chicago service. The solution was to print separate summer and winter schedules on different pages. Things remain essentially as they were on this route, although things may notalways be the same up to the time change. CN would like to abandon the overnight International Limited (Toronto-Chicago), and the weekday only Toronto-Guelph commuter. The loss of the International Limited would have a profound effect on rail travel west of Chicago, as the daytime Maple Leaf misses most connections in the Windy City, dictating an overnight stay. It will be a great tragedy if this extremely convenient and well-patronized overnight service is allowed to be abandoned.

Missing from the North Bay route are summer only trains 85 & 86, which left Toronto Friday evenings and returned Saturday afternoons. Also conspicuous by its absence is the daily operation of Railiners 673-4 between these two cities, until this year a regular feature, which ran only on weekends during the off-peak months.

The tri-weekly conventional train from the Lakehead is still running, and for the first time the new names of the municipalities are used; Thunder Bay North (formerly Port Arthur) and Thunder Bay (Fort William).

We come now to the Prairie Provinces, where the CN again encountered the problem of differentiating between Standard and Daylight Time. In this case, Manitoba observes Daylight Saving Time; Saskatchewan does not. Thus for the schedules of trains 90, 91, 92, and 93, which operate for almost 200 miles through Saskatchewan on their journey between Winnipeg and The Pas, it was necessary to show the Saskatchewan times in red ink, with a footnote advising travellers to deduct one hour from the times printed in red during the summer schedule period.

Speaking of Saskatchewan, Railiners 682-3 are missing from the Regina-Saskatoon run as of January 7th. As a consequence, passengers from the Super Continental from the east bound for Regina must now take a bus. Its southbound mate, No. 681, makes a convenient connection with the westbound Super Continental; however with the demise of 683 there is no connection with the eastbound Connie. The eastbound Super Continental connects with the northbound 682 for Regina.

Briefly returning to Manitoba, it is to be noted that the Great Northern train from Winnipeg to Minneapolis-St. Paul, No. 8-32 southbound, 31-7 northbound, has been cancelled. In its stead there is a day train equipped with a snack-bar coach, leaving Winnipeg at 0645, and running to Grand Forks, North Dakota, where it makes connections with GN's eastbound and westbound Western Star, a transcontinental train operating between Chicago and Seattle.

The Jasper-Prince Rupert trains, No's. 9 & 10, will resume daily operation commencing June 19th until September. Railfans would be well advised to make this scenic trip soon, as bus service on a parallel highway is killing the business.

Last but not least, the CN's best, the Super Continental, comes under our scrutiny. Fortunately, the Montreal and Toronto sections will be operated as separate trains all the way during the peak summer period, June 17-September 9, unlike last year. Regrettably, the Super Continental has become a "plug run" west of Winnipeg, taking over the stops formerly made only by the now defunct Panorama, calling at small towns such as Spy Hill, Saskatchewan, and Tranquille, British Columbia. Each section of the train will operate with a full compliment of sleeping cars. In the summer period Sceneramic cars (ex-Milwaukee full-length domes) will operate Toronto Vancouver on No's 3 & 4. The Montreal section will have no dome car at all during this period. The earlier departure of No. 2 from Vancouver means that people from Portland and Seattle on the Great Northern's International just miss the CN connection (the Super Continental) and must remain a night and day in Vancouver. Many West Coast Americans used the CN to the east because of the economy of CN's Red, White and Blue fares. During the summer months this connection will again become possible via GN 360, getting off at New Westminster from Seattle and boarding CN No. 4.

Equipment of interest is the appearance of a 1939 vintage eighteen roomette car as the crew dormitory on the Super Continental, running from Montreal to Vancouver during the summer. This may well be the last service this equipment will see. These ex-NYC cars have not been operated as regular line equipment for well over a year. A similar surprise is the assignment of the streamlined heavyweight eight section two private drawingroom cars in revenue service on the Ocean, Scotian, and Chaleur runs in the Maritimes during the summer. These cars, which are among CN's most comfortable and smooth riding, had been relegated to extra service suring the past year while older sleepers of the twelve section drawingroom, fourteen section, and eight section four double bedroom configurations had seen regular service. This is a welcome change and one hopes that this fine series will put in a regular appearance from now on. Other equipment of note on the summer transcontinental will be a line of two compartment two double bedroom-lounge sleepers of the "Cape" series on the Toronto section of the Super. Once a week, two of these cars will be in the consists of trains 3 & 4; one as the regular lounge and the other replacing both the scenaramic lounge car and the regular line of "Mount" class cars. Once again the Toronto Super Continental will carry CN's most deluxe series of cars, the five compartment, three drawingroom "Mounts" and the ten roomette five double bedroom "Bays", as well as the usual selection of lightweight equipment.

Thus, as the new decade opens, we find the basic CN passenger network intact, as it was in 1960, an amazing circumstance considering what has happened to the American passenger trains in the last ten years. Unfortunately, the same laws of economics apply in this country, so railfans might do well to get their riding done soon.

RAPID TRANSIT FOR EDMONTON

Edmonton, Alberta, may shortly be the third city in Canada to boast a rapid transit system. Plans are currently underway for the construction of the first 5½ mile segment, with its completion scheduled for 1972. There are plans for two other phases for the system, the second phase being a 3½ mile addition to the first line, the third phase totalling 4-3/4 miles will require some tunnelling and may not see completion until 1977.

At the present time Edmonton has a population of around 400,000, with rapid growth taking place. The city is fortunate in having railway lines penetrating to the heart of the central business district from three directions. The intention is to use these lines as rights of way for the rapid transit lines.

Phase I of the planned system lies entirely along the Canadian National tracks, but a new standard gauge line will be laid throughout so that no mutual interchange will take place between CN and rapid transit trains.

The northeast terminal adjacent to the municipal airport will consist of a single track and platform on the west side of the CN tracks and the next station at 107th Avenue is to be an island platform. From this point onwards space will be found between CN tracks and grade separation will be achieved by a series of dive-unders allowing CN trains to cross from one side of the rapid transit tracks to the other on the level. This arrangement allows the CN to continue to serve private sidings on both sides of its route through the city.

Provision is made for a burrowing junction just short of Main station where the two rapid transit lines will merge; there is already a junction between CN and CP Rail tracks at this point facing in the opposite direction. Only one pair of tracks will be provided through Main station, but 96th Street station will have two island platforms with a central turnback road.

Main station will be built at the north end of Edmonton Civic Centre as part of a transport complex in the base of a 46-storey office block. Interchange will be provided with buses and a one-mile system of pedestrian subways and escalators now under construction.

From this point plain double track with island platforms continues to beyond the outer terminus at Exhibition, where three storage tracks will be provided--still flanked by CN tracks--on which out-of-service cars will be stored.

It is interesting to note that the Edmonton system is being constructed with an eye to economy, at least as far as construction of the first two phases is concerned. $2.4 million is allocated under Phase I for the elimination of level crossings, but a number of these will remain where road traffic is light. For this reason, overhead current collection has been specified, with maximum catenary height of 18 feet.

I -- CAPITAL INVESTMENT REQUIRED IN MILLIONS OF DOLLARS

	PHASE I	PHASE II	PHASE III
Track & structures	$6.7	$9.1	$16.9
Properties & improvements	$2.1	$1.1	$ 2.0
Rolling stock	$3.6	$0.9	$ 2.7
Elimination of level crossings & widening (city share)	$2.4	--	--
Totals	$14.8	$11.1	$21.6

II -- ANNUAL COSTS AND REVENUE
(based on 10-min interval service and 70¢ per car-mile train operating costs)

	PHASE I	PHASE III
Maximum cars in service	24	18
Annual car-miles	725,000	680,000
Operating, maintenance & administration	$507,500	$476,000
Capital charges at 7% interest & 25 yr amortization	$1,064,000	$1,854,000
Total annual cost	$1,571,500	$2,330,000
Gross revenue	$1,531,750	$1,258,000
Annual deficit	$ 39,750	$1,072,000

Operation of Phase I envisages a 10-minute service of trains throughout the day with train lengths varying from one to six cars as traffic demand fluctuates. Rolling stock manufacturers have been asked to consider proposals for two-car sets instead of single cars. Between 25 and 30 cars will be required for the opening of Phase I in 1972, and increased patronage should lead to a repeat order of 20 to 25 units by 1973 at the earliest and 1976 at the latest.

In the specifications issued, the manufacturers have been allowed a number of degrees of freedom. However Edmonton is looking for cars basically similar to the subway cars built by Hawker Siddley for the TTC Bloor-Danforth Subway in 1965. (See NL, No. 284, page 99.) Thus the structure gauge has been designed to accomodate 75-foot cars 10 ft 4 in wide. Overall height is specified at 11 feet, excluding the pantograph.

In planning the specifications for the cars, the extreme climate of Edmonton had to be taken into consideration. Air conditioning was not regarded as essential, as summers in the city are not unduly hot. Winters are a different story, with temperatures well below -20°F. common for days on end. Heating has to maintain the interior of the cars at 80°F. above ambient, and the temperature must be controllable within the range 55° - 75°F. Also specified were local heaters to prevent the formation of ice on door runners, automatic couplers, and other exposed moving parts.

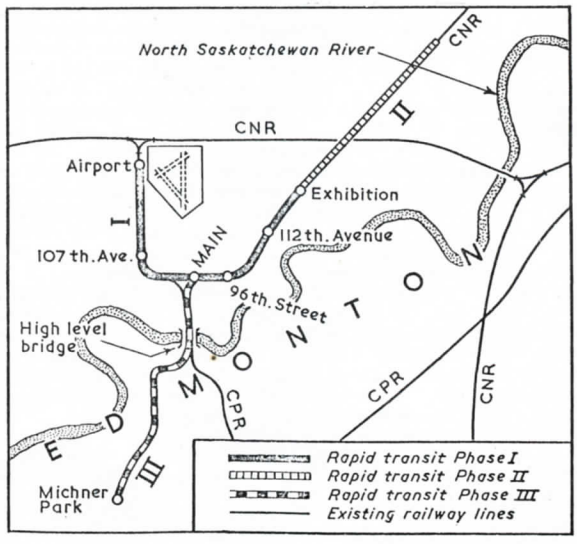
Passenger comfort is to receive more attention in Edmonton--a reflection of the competitive environment that the rapid transit system will have in that city. A percentage of seated passengers is envisaged with transverse two-and-two seating rather than longitudinal benches. Partly to increase seating, and to limit heat loss in winter, there will only be three doors per side. Floor carpet is being considered.

Trains are to be operated by one man only, although the relative merits of cab signals with speed supervision and full automatic train operation have yet to be considered. At quiet times when only one-or two-car trains are being operated, passengers will enter the train only by the door next to the driver and he will be responsible for fare collection. A standard fare will be charged, the driver supplying change and selling tickets.

Phase II of the rapid transit line is a 3½ mile extension alongside CN tracks to the present city limits. The only major problem encountered is the crossing with the CN transcontinental line, at which point the rapid transit line will have to be grade separated.

Construction of Phase II is somewhat problematical, and the need for this section will be assessed once Phase I is in service and the effect on road traffic can be judged. It really merits lower priority than Phase III, but has been designated Phase II because it is so much cheaper and may therefore be built first. Completion is tentatively put in the period 1976-78.

The urgency of Phase III is not in doubt, the the cost is much higher because railway rights of way can be used for only a small portion of the 4-3/4 miles. Even on the short section adjacent to CP Rail tracks, it may be necessary to have a section of single track which will place a bottleneck on future growth at a key position.



Phase III trains will leave Phase I tracks by a double track burrowing junction to parallel CP Rail tracks for 1-3/4 miles, crossing the North Saskatchewan River on the present high level bridge. CP Rail trains are carried on the upper deck and there is space available on former tramway right of way for rapid transit tracks.

At this point the line will enter a three mile cut and cover tunnel through the North Garneau and University areas (including the proposed health services department), beneath 114th Street and across the University Farm, terminating by Michener Park. As may be seen from the table, the infrastructure costs on this stretch will come to more than Phase I and Phase II together.

Phase III will take five years to construct as compared with two years each for the other two, and work is planned to begin in 1971 with completion in 1976 or 1977. These construction programs are based on the assumption that Edmonton can support a rate of investment of $5 million a year on rapid transit.

Projections of passenger loadings show Phase I used by 12900 commuters on an average working day, amounting to 8.1 million single journeys a year. Phase III would be used by 3500 commuters daily, but annual single journeys would be 5.6 million because a larger portion of non-commuter travel is expected. No projections have been made for Phase II.

Thus Edmontonians will one day in the very near future be able to enjoy the benefits of modern rapid transit in their city--the third Canadian city to have a modern rapid transit system.

(This article was based on material kindly supplied by E. A. Jordan and H. T. Ledsham, and which appeared in the Railway Gazette of August 1, 1969.)

TRACTION TOPICS

Edited by Alf Nanders.

* The lack of a major snow storm this winter saw TTC snow fighting vehicles confined to their bases. Three minor snow storms resulted in only moderate service disruptions caused mainly by stalled autos or collisions on TTC track areas.

Where Old Man Winter failed, fires managed to disrupt transit operations many times during the first quarter of 1970. A stubborn 3-alarm blaze at the northwest corner of St. Clair Ave. W. and Keele St. (the old Swift meat packing plant) forced the cutback of ST. CLAIR streetcars to Townsley Loop from 9:30 p.m. January 5th to 12:30 a.m. on January 7th. Most rush hour extra cars on the ST. CLAIR route were turned back at Earlscourt Loop. The majority of transferring passengers experienced little hardship because trolley coaches on the 89-WESTON ROAD route were replaced by diesel buses and detoured via Rogers Road, Old Weston Road, and Annette Street around the fire area, thus permitting direct transfer to ST. CLAIR cars at Old Weston Road and St. Clair.

On February 4th, a three-alarm fire on Queen St. W. just west of Bathurst during the early morning hours resulted in buses being used on the BATHURST route, and on Queen St. between Shaw and Church. QUEEN streetcars ran as single units that morning and were detoured via Shaw, King, and Church Streets.

When a store was burned out on King St. W. just east of Dufferin, during the afternoon rush hour on February 23rd, KING cars were detoured via Shaw and Queen to Roncesvalles. KINGSTON ROAD TRIPPER cars and trapped westbound KING cars were turned back using Dufferin Loop.

CARLTON cars were turned back through Bathurst Station Loop via Bathurst Street when firehoses and fire trucks blocked part of the intersection of Bathurst & College Streets while fighting a major blaze a few doors south of College on Bathurst in the evening hours of March 3rd. Buses replaced streetcars on the entire BATHURST route and CARLTON between High Park and Bathurst. Several trapped eastbound cars were backed to Ossington Avenue, where a rarely used connection to Dundas exists.

* During the winter months, TTC surface track crews replaced track in the following one-day projects:
- replacement of facing and trailing switches on the westbound track at St. Clair and Wychwood;
- replacement of the switchmate at the south end of the crossover on Dufferin north of King;
- replacement of two worn rail joints with short pieces of rail on the eastbound track on St. Clair at Pinewood and at Arlington.

While crane car C-2 was receiving a complete overhaul at Hillcrest, flat W-4 transported rail to these job sites.

* Yonge Street was closed at Roehampton Avenue to all southbound traffic for subway construction purposes from 7:30 p.m. on February 27th to 5:00 a.m. March 2nd. Trolley coaches were replaced by diesel buses which were diverted southbound via Montgomery and Duplex. 61-NORTOWN trolley coaches were also replaced by diesels. Northbound traffic on Yonge was not affected.

Eglinton Avenue immediately west of Yonge was closed to all vehicular traffic from 7:30 p.m. March 20th to 5:00 a.m. March 23rd, again for subway construction. Diesels again replaced all trolley coach service on the two northern trolley coach routes.

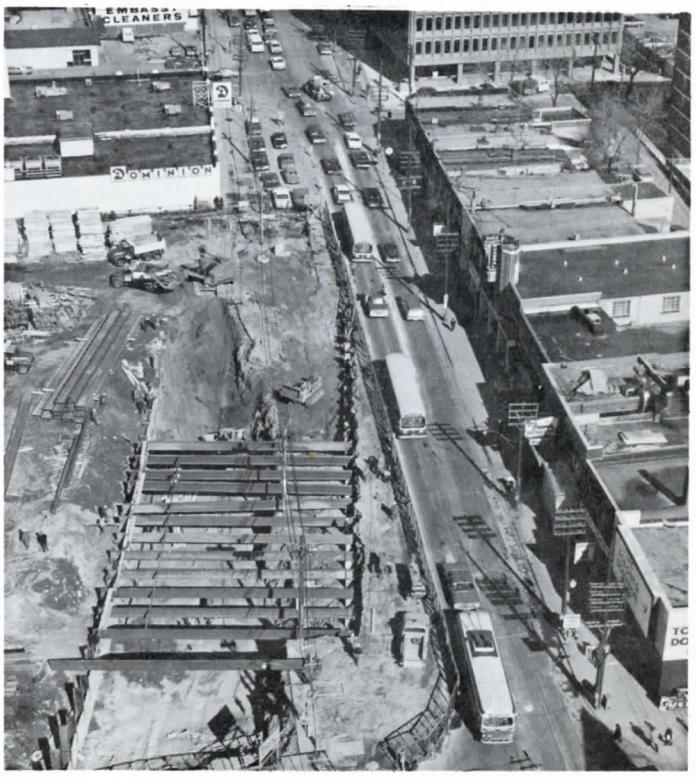
* The Toronto Transit Commission has granted general contractor Robert McAlpine Ltd. extensions in contract deadlines for completion of McAlpine's sections of current northward construction of the Yonge Subway line.

The time extension, granted November 25th, moves the completion dates from October 14, 1970 to January 15, 1971 for the Eglinton to Lawrence tunnel and to December 28, 1970 for the Lawrence to York Mills tunnel. Strikes, lockouts and slowdowns resulted in loss of about 93 days on the Eglinton to Lawrence section and about 75 days on the Lawrence to York Mills section.

* Trolley coaches 9019, 9087, 9095, and 9118 are the first group to be stripped of their electrical gear needed for the installation in the new trolley coaches. The new coaches will resemble the recently delivered Western Flyer diesel buses (TTC 7500-7509), rather than 9020, the experimental 'New Look' trolley bus delivered in August, 1968.

* The TTC will spend $10,000 to install a fully signalled, power operated and remote control double crossover north of the Bloor station on the Yonge Subway. This will allow Yonge trains to be turned back northbound in case of tieups south of that station.

This is the scene at the intersection of Yonge and Eglinton on the morning of February 20, 1970. First lift excavation on TTC North Yonge Subway Contract Y-1 is in full swing. Traffic on Yonge Street has been cut down to one lane, each direction. Trolley coach wires have been moved over, as well. Contract Y-2 (tunnelling to Lawrence Station) begins 100' south of Roehampton Avenue (to the top of the photo). Photograph taken from the roof of the Canada Square Building.
-- photograph courtesy Ted Wickson, TTC.



* Half fare tickets (8/$1.00) went on sale to eligible senior citizens in Toronto on January 15th.

The half fare plan is the result of an agreement between the Municipality of Metropolitan Toronto and the Toronto Transit Commission whereby Metropolitan Toronto will reimburse the Commission an amount equal to the difference between the total value of the special tickets issued and the total value of the equivalent number of TTC Zone 1 adult tickets. The agreement may be terminated by either party on sixty days notice. The agreement was approved by the Ontario Municipal Board.

Special photo-identification cards are issued by the Metropolitan Welfare Department to eligible senior citizens. Initially, those eligible are persons who are:

(a) 65 years of age or older;
(b) resident in the Municipality of Metropolitan Toronto;
(c) in receipt of all or part of the Federal Guaranteed Income Supplement to the Old Age Security Pension.

An estimated 60,000 Metro Toronto residents are eligible for half fares under the above provisions. When the special tickets went on sale approximately 15,000 senior citizens had applied for and received the identification cards.

* Multiple-unit PCC cars 4410 and 4446 are at TTC Hillcrest Shops for conversion into a subway rail-grinding train. This job involves extensive structural changes and electrical wiring of these 21-year old surface cars, as they will be coupled back to back. More details on these cars in a future issue of the Newsletter.

* Canadian Westinghouse Corp. will spend $413,000 to end motor troubles in 164 Hawker Siddley subway cars the TTC bought in 1965. Thetroubles began shortly after the cars went into service and were traced to 'poor winding stabilization' by Canadian Westinghouse, which supplied them. The motors were built in Belgium. Westinghouse offered to overhaul and rewind the motors for $700 each, or $413,000 which it said was less than half the cost for such work under normal circumstances, and takes into account the fact the cars have run between 200,000 and 250,000 miles.

* Between $12,000 and $15,000 will be spent on the installation of 192 safety gates to deter subway riders from wandering down the tracks, the TTC announced recently. The gates will be installed at the end of platforms. The TTC decided to approve the gates following the recommendation of a coroner's jury investigation into a death that took place last August.

* Turnstiles that read magnetic coding on two-zone tickets were a 'moderate success' when tried at the Warden and Islington subway terminals, operations manager J.H. Kearns reported to the TTC. Passengers liked them. But because of a 'lack of cooperation' from the supplier, his equipment has been returned to him. The TTC decided to advertise for new quotations on the machines which make it possible to buy one ticket to ride through two fare zones.

* The separate PCC car body shop at St. Clair carhouse has been discontinued, and the operation returned to Hillcrest Shops some time ago, because of space gained there when a new system of job programming was started in 1967. It reduced the time that a vehicle was in the shops, and gradually eliminated lost time periods to permit employees to concentrate on the work at hand. The average number of vehicles tied up at Hillcrest Shops at any one time has been reduced from 70 to 46 since that time. For example, overhaul time on a trolley coach was reduced from 35 days to 20 days and the bus overhaul reduction schedule decreased the number of days from 25 to 15.

These goals made it possible to tabulate with fair accuracy an overhaul and repair pattern for an entire year. Of the 1000 vehicles that enter the shops annually, not all have been programmed. But by reducing the down time on those specified, it has been possible to have a more flexible schedule. In other words, there is a flexibility here that allows emergency repair work.

Close tabs are kept on all vehicles that enter Hillcrest Shops. During the 20 days that a trolley coach is undergoing repairs, short interval checks are made every five days. Its progress as it goes through a general overhaul repair job is spot-checked frequently. The same is also true of streetcar and bus overhauls. This operational timing and check-point progress report is charted in the shops' office section. One board indicates the type of vehicle, when it enters the shops and the reason for 'shopping'. The short order internal check board posts the vehicle's position or location and still another indicates work performance. The last, and final board, posts job orders.

* TTC Commissioners Ford Brand and Douglas Hamilton will resign on April 1, 1970. The five-member TTC could legally continue with three if Mr. Brand and Mr. Hamilton were not replaced. Metro Toronto Council will debate the TTC's jurisdictional future in April.

* The City of Montreal will soon begin eight or nine urban renewal projects and will expand the subway system during 1970, Mayor Jean Drapeau said in a recent radio interview.

* A $2.5 billion subway system designed to serve as a prototype for American rapid transit planners was dedicated recently in Washington, D.C., at the foot of Capitol Hill. Scheduled for completion in 1980, the 98-mile system will link downtown Washington with suburbs in Maryland and Virginia.

* Red Arrow Lines, recently purchased by the South Eastern Pennsylvania Transportation Authority, will be operated as a separate division. SEPTA must account separately to Philadelphia and Delaware County.

* The Metropolitan Philadelphia Railway Association (Box 7833, Philadelphia, Pa., 19101, U.S.A.) will send you three free copies of their monthly newsletter "Metroliner" as an introductory offer. The MPRA covers the electric railway scene in Pennsylvania and New Jersey with emphasis on the Philadelphia scene. Philly fans, drop them a line.

FORTY YEARS AGO.....

This group of officials from the Toronto Transportation Commission was on hand at Glen Echo Terminal in North Toronto to witness the arrival of the last radial car to operate on the Lake Simcoe Line--74, a Thornhill local. With the arrival of this car at 1:15 a.m., on March 16, 1930, the Toronto & York Radial Railway's radial line to Lake Simcoe became a memory.