



Transport 2000 West Canada Newsletter

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for Manitoba

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Our Mission: *Transport 2000 Canada represents the interests of public transportation by promoting socially, environmentally and economically sustainable policies, programs, services and actions.*

Editorial by J. J. Bakker

In this issue three themes are tackled.

First the bigger is better idea, that prevails in the business world, and alternatives are perhaps smaller works better.

Second it is twenty years ago that Edmonton set a precedent on the North American continent by starting an LRT system. It was the first city with less than 1 million that started a rail transit system. It changed the thinking in the United States, Calgary and Vancouver. In the USA the Edmonton example was followed by San Diego, Portland, Sacramento and San Jose on the west coast and St. Louis and Dallas in the Midwest.

The third theme is to respond to a challenge by the Minister of Transport about Public - Private partnerships.

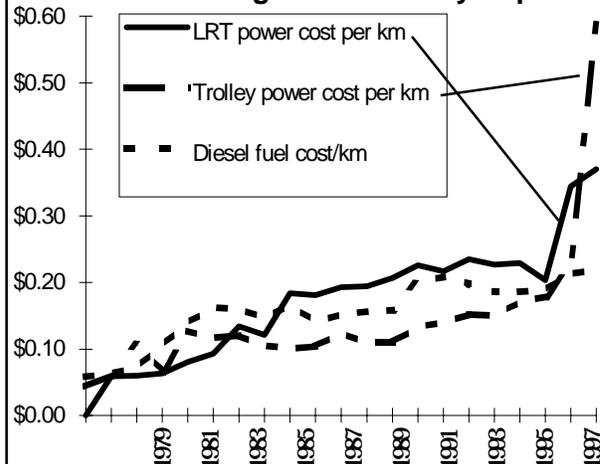
We trust you find it interesting. Our next issue will be in late June. This issue was mailed on Thursday March 5, 1998.

Twenty Years LRT in Edmonton



Edmonton's Northeast Line located between CN Tracks. A three-car train comes from the CBD that can be seen in the background. The first line opened April 28, 1978 ahead of schedule and under budget. See pages 4 to 8.

Cost Accounting makes Trolley Expensive



Edmonton changed the charging system of the trolley bus electricity. It now suddenly shows a fuel cost per km of 59 cents per km. Up to 1996 the fuel cost per km was less than diesel. Is this an attempt to get rid of trolleys in Edmonton by changing the accounting system? The suspicion is that wire maintenance is now part of the fuel cost. True accounting would charge wire costs to any bus that runs under wires including diesel buses. Otherwise the incentive is not to run trolleys, which maybe just what Edmonton Transit wants to show.

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The missing link in the VIA proposals to the Transport Committee (see pages 8 and 9)



Multiple-Unit Diesel Freight coupled to a Multiple-Unit Diesel Passenger Unit.

Bigger is Better, Until

The trend of bigger is better is continuing. In the past few months we have had the announcement of a major bank merger, as well CN wants to buy Illinois Central. Everywhere the slogan is, it has to be bigger, it is more efficient, we have to improve productivity..... But does it work better?

Union Pacific - Southern Pacific Merger

This merger started on September 1, 1996 with lots of the usual promises and slogans. Reality showed a total failure. After one year the rail network in the southern United States clogged.

What happened is, that the merged railway downsized both staff and equipment. The plans were made at the end of a recession. Traffic however has surged.

The merged railway tried with paying overtime to solve the problem. The US Federal Railway administration had to order the creation of a special task force to address the problems of fatigue among train crews and dispatchers.

By October 1, UP had 40,000 excess wagons to clear, it had to divert coal traffic to BNSF.

Economics 100 - Monopoly

To understand the trend, realize that in the fifties there were more than 100 Class I railways in the U.S. Later this year, combining Canada and the U.S., there will be seven. They are:

Burlington Northern Santa Fe R.
Canadian National/Illinois Central
Canadian Pacific
CSX Transportation (+part of Conrail)
Kansas City Southern Lines
Norfolk Southern(+part of Conrail)
Union Pacific

The Class I railways account for:

73% of rail mileage
89% of freight railway employees
91% of freight railway revenue

The Short Lines are being squeezed, because most are dependent on one Class I railway. In other words there is no competition. That is also true in Canada.

Since the U.S. railways are split between east and west, the temptation for further mergers between east and west railways should be great. So we can expect 2 or 3 dominant railways in the U.S.A. That means a virtual railway monopoly, the Economics 100 result of de-regulation.

Open Rail Access

Slowly there is a lot of talk developing to reintroduce some competition. The method would be Open Rail Access. It would mean that special haulers or short lines would get access to the main lines. In the U.S. Amtrak already has this right and **on the basis of avoidable cost only.**

In this newsletter we have argued before that for Canada, a track authority separate from operating companies was a better solution than to privatize all of CN. The Star-Phoenix in Saskatoon now also suggests Open Rail Access.

The Hon. David Collette, the new Transport Minister, in a talk to the House of Commons Transport Committee, appears to think that Britain is a good example of Private-Public cooperation.

Now Britain has Railtrack, an infrastructure utility. Is that the example? The proposed high speed line from London to the Channel tunnel is \$ 2 billion short and the government will not fund it. In the U.S. the main line between Houston and New Orleans (ex SP) has been put under joint ownership and dispatching of UP and BNSF.

CP and the East

Canadian Pacific has tried to downsize in eastern Canada for years. They formed the Atlantic Railway and then abandoned it, converting it into several short lines. And then we had the Hudson and St. Lawrence with the clear intent to play the same kind of game.

However, guess what, the economy turned around a little and the Hudson & St. Lawrence is now profitable. We now have statements from CP in Calgary that they are there to stay and serve the east.

The question does arise, did CP make a mistake by abandoning the Atlantic Provinces? Were the decisions taken during an economic downturn really the best for CP. And further more did the Canadian (non) regulatory authorities fail in preserving the investments our ancestors made in railway infrastructure? Of course big business always knows best, until there is a change.....

Is Bigger Equipment Better?

The other trend has been to go for bigger hopper cars, bigger engines (CP announces new purchase of engines, 2 engines will replace 3, etc.), doublestack container cars, and the list goes on.

But what is happening is just like with the highways. Increasing axle loads, increases the stress on the roadbed foundation. In the west, the railways are at the limit, and some say beyond it, of what railway embankments (fill often placed when the railways were originally built), can take. We are getting failures and massive costs to reconstruct many fills on the western railway lines.

In fact there is now a task force of both railways and a western University examining the problem of fills that may not hold. Any remedy is going to be costly.

Of course with highways it is simpler. Provincial governments allowed increased axle loads and have been paying for big road repairs. The taxpayers are paying, the truckers are not. And yet the transport committee said last year we should spend more public money on roads!

Avoidable Costs

In the U.S. Amtrak only has to pay avoidable costs for the use of track. In Canada VIA, as well as Rocky Mountaineer, is dependent on what the railways want to charge. With the famous and imaginative cost accounting of the railways, the costs of reconstructing fills will be passed on to VIA and Rocky Mountaineer. And the passenger or tourist trains did not increase their axle loads and were not responsible for the costs to remedy roadbed failures.

But the way things are, without a VIA Railway Act, the passenger or tourist trains are not protected from being gouged in the future. Soothing words will not help. CP after all doubled its charges overnight on Vancouver Island just like that. They just wanted to get rid of the passenger train and VIA had no recourse but to pay.

Grain Containers?

There are hearings on Grain Transportation. Last year the railways failed to move the crops. The railways blamed the weather. Some of the failure was due to roadbed failure.

Now grain movement starts on the farm. Typically farmers use single unit trucks on the field. Now what if they used a container on a flat truck. This container could then be brought to the railway and moved onto a flat railcar. No transshipment to an elevator and then from elevator to train.

The smaller truck would not cause the damage to rural roads that the big, bigger, biggest semi-trailer trucks would cause. Of course the transfer locations from road to rail would have to be more frequent, but would the cost not be less?

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TRANSPORT 2000 CANADA is a national federation of consumers devoted to advancing the public interest in transportation of all modes. A registered charity, it is involved with research, public education and advocacy of public transport issues. It publishes a newsletter "Transport Action".

TRANSPORT 2000 CANADA [Alberta Branch], Transport 2000 BC, Transport 2000 Saskatchewan and Transport 2000 Manitoba are separate organizations in the western provinces. Half the membership fee goes to the Federal Organization.

Meetings

Transport 2000 Canada Annual General Meeting will be held in Toronto on Saturday the 25th of April 1998 at 2 pm. in Metro Hall.

Transport 2000 Saskatchewan will hold its annual meeting on Saturday March 28th, 1998 at 1:30 pm. Location: St. Paul's Anglican Cathedral hall, 12th & McIntyre in Regina. The meeting will be followed with a dinner at the Copper Kettle restaurant at 5:30 pm. Dinner is at own cost.

Transport 2000 BC holds monthly meetings on the second Tuesday of the month at 7:00 pm. at Mount Pleasant Neighbourhood House. Next meetings are March 10 and April 14, 1998. The annual meeting is in October.

Transport 2000 Canada [Alberta] will meet in September.

GVRD Takes Over Transit

In a vote on February 27, 1998, the **Greater Vancouver Regional District** voted 37-15 to assume responsibility for transit and major roads and bridges. The province also agreed. The **Greater Vancouver Transportation Authority (GVTA)** will officially start on April 1, 1999.

The GVTA will have a board of 15, 12 from the GVRD and 3 MLA's. Legislation to officially create the GVTA will be tabled in the legislature this spring. Surrey, Richmond, Coquitlam, West Vancouver and Langley Township opposed the deal.

The GVTA will be financed from fares, a share of the gasoline tax and other revenue sources. The revenue should pay for the existing obligations but not for expansion. Improved service would require additional sources of revenue. The GVTA inherits \$500 million existing debt and a committed \$600 million share (40%) of the proposed LRT line on Broadway - Lougheed. The province will pay for 60% of the LRT line and retain \$ 1 billion SkyTrain debt.

Arthur Griffiths, a Vancouver entrepreneur (former co-owner GMPlace, Vancouver Canucks and Grizzlies) will head up a consultation team that will oversee planning of the proposed LRT line. In addition there will be a blue-chip business advisory committee to oversee commercial opportunities and issues along the line.

Hopefully there will also be attempts to keep the costs down. The community better first set its priorities for Broadway-Lougheed between LRT, Through-Traffic and Access Traffic.

CN takes over Illinois Central Railway

Canadian National Railway announced on February 10, 1998 that it is acquiring Illinois Central Corporation for **US\$2.4 billion**. The merger will give CN greater access to rail routes in the U.S. heartland. CN will assume the American rail company's debt of **US\$560 million**.

Illinois Central is a 147-year-old freight hauler that boasts strong north-south rail routes. The deal follows a consolidation trend in the industry since U.S. deregulation in the 1980s cleared the way for mega railways.

It will make Montreal-based CN a stronger competitor against American rivals like UP, BNSF, CSX and Norfolk Southern.

CN has annual revenues of nearly three billion dollars and serves key US gateways such as Chicago and Detroit. CN is also closing lines in Canada because it claims it cannot afford them.

Based on revenue, it is the sixth-largest North American freight railway with Canadian tracks running from Vancouver to Halifax. This merger will make container traffic possible from the Gulf to Vancouver (closer to Asia) and from Halifax to the Gulf.

Privatization in the UK.

British press reports in January said that a government report shows deteriorating service quality on British Railways since privatization was completed.

The office of Passenger Rail franchises said reliability and punctuality were both down. John Welsby, the chairman of British Rail said, "For the privatized railway, the honeymoon is very close to being over...In general, the privatized railway is hardly better than it was in the last years of public ownership. That is a great disappointment.". He also said privatization had not resulted in the hoped-for decrease in government subsidies.

[Source: NARP Hot-line Jan.23.1998].

Update: Lions Gate Bridge Options

The Lions Gate Project will present five options to three competing private-sector consortiums sometime in March. The consortiums will have three months to submit proposals, which will be followed by two month of evaluation. Construction would be two or three years, it will then be about 2002. Peak direction road capacity will then be unchanged.

The five options are:

◆ **A four-lane rehabilitated bridge** with northbound traffic using a two-lane tunnel under the park and southbound traffic using a rehabilitated surface causeway.

◆ **A two-lane rehabilitated bridge** and causeway to carry traffic in one direction, **and a two-lane tunnel** to carry

Transport 2000 Saskatchewan Submission to Grain Commission

The submission points out that deregulation has allowed the railways and the elevator companies to look only at their bottom line, without considering the overall economic and cost impacts of their actions.

The closure of the remaining branch lines do not take into account the costs to the total grain handling system from the farm gate. The actions of the railways transfers costs to farmers and municipalities, particularly in road costs.

The submission asks that a reasonable branch line system is retained. It notes that already 7,200 km of rail line has been abandoned on the Prairie provinces, most of which in Saskatchewan.

The submission also points out shortcomings in the present Transportation Act. There is no provision for appeal by local communities, if they think they can operate a branch line and thereby save increased road costs. In fact CP and CN have stonewalled local communities. Since many branch lines were upgraded with government funds, this procedure is a gross waste of government funds.

The government has made commitments at Kyoto to reduce greenhouse emissions. The abandonment of more branch lines would have the opposite effect. [From the submission by George Burton, President Transport 2000 Saskatchewan]

European Spending Priorities

The European Community has a Trans-European Network Funding Program. More than half the Cdn\$ 562 million funds allocated are for rail network projects. In fact about Cdn\$ 350 million is allocated between 14 countries. It shows where the priorities in Europe are. The support is mainly for infrastructure construction and some studies.

traffic in the opposite direction.

◆ **A four-lane rehabilitated bridge** and a four-lane rehabilitated causeway, but with land bridges constructed to retain park continuity.

◆ **A four-lane rehabilitated bridge** with a four-lane underground roadway through Stanley Park

◆ **Twin-bored tunnels** from Georgia Street under the inlet to Marine Drive.

The last option would allow the Lions Gate to be turned over for Light Rail Transit and bikes, with little impact on Stanley Park. Unfortunately there are no transit provisions in the current options. LRT would actually increase peak hour people capacity.

Twenty Years LRT in Edmonton - Part 1

by J. J. Bakker

Facts and Figures:

Line Segment	Opening Year	Length (km)	Capital Cost	Provincial Contribution	Stations	Station Type	Park& Ride Stalls	Land Use Changes in Station Area	Light Rail Vehicles Siemens/Duewag RTE1				
			Million Cdn \$	Million Cdn \$					Available New	Total	Peak In Use	Base Util.**	
Northeast	1978	7.2	\$ 64.90	\$ 45.0	Central	Underground	-	Minimal	14	14	6x2	3x2	86%
					Churchill	Underground	-	Minimal			=12	=6	
					Stadium	Surface	450	Minimal					
					Coliseum	Surface	-	Minimal					
					Belvedere	Surface	700	Minimal					
Clareview Extension	1980	2.2	\$ 9.20	\$ 6.8	Clareview	Surface	625	Minimal	3	17	7x2	4x2	82%
Downtown Extension	1983	0.9	\$ 95.88	\$ 82.0	Bay	Underground	-	Minimal	20	37	8x3	4x2	65%
					Corona	Underground	-	Minimal			=24	=8	
South Extension	1990/1992	2.5	\$ 145.80	\$ 113.2	Grandin	Underground	-	Minimal		37	9x3	=5x3	73%
					University	Underground	-	Minimal			=27	=15*	
LRT Garage	1983		\$30.00	\$ 27.9									
TOTAL	'78-'92	12.8	\$345.78	\$ 274.9	10	-	1,775	Minimal	37	***			

* During University sessions there are 3 car midday trains, otherwise there are 2 car midday trains.

** Utilization is percentage of equipment in use during the peak hour. Maximum is about 85%.

***With existing equipment one or two more trains can be added, giving respectively 19% or 11% spare equipment.

Ridership Data

Source: Edmonton Transportation.

Year	1979	1981	1983	1985	1987	1989	1990	1991	1992	1993	1995	1997
Daily LRT Boardings(07:00-18:00)	19,000	23,200	20,400	24,500	23,900	22,800	23,400	24,100	36,000	30,800	35,400	35,700

The Early Beginnings

The idea of rail transit was first developed in October 1961. At that time there was the usual freeway study going on in Edmonton, called METS (Metropolitan Edmonton Transportation Study). It assumed that transit ridership would continue to go down and that a freeway box around the CBD was necessary, with freeways going West, Northwest, Northeast, East, Southeast and Southwest.

In addition there was the High Level Bridge, the upper deck of which was designed for a railway track and two streetcar tracks. At first METS looked at converting the upper deck to a freeway, but later decided to have a separate bridge to the west of the existing bridge.

The thought occurred that the High Level Bridge should be used for rail transit. As with all brilliant thoughts there was a problem of realistic costs that could be accepted.

At the same time Toronto was in its heyday of "Balanced Transportation". Not only did it get its Gardiner Expressway and 401, but also the Yonge Street Subway and a start on the Bloor Street Subway. As a guide to acceptable costs we took the per capita cost in Toronto for the subway. **This meant that rail transit in Edmonton had to be mostly above ground and could only have a short subway downtown.** This conclusion seems to have been forgotten.

The First Design

It was in October 1961 that four of us gathered in the basement of Don MacDonald, at that time transit superintendent, to sketch out a first design. The others in the team were Don Walker (who later went into consulting), All Ross (who later became manager of the Saskatoon Transit System) and myself.

That evening, armed with every available literature on the subject, we sketched out a design. The main features were a downtown tunnel under 102 Avenue, using the High Level Bridge to cross the river and then through the University, and the CN right-of-ways to the Northeast and the Northwest. The design was very much based on right-of-ways available but serving the corridors with greatest traffic growth.

The same team had earlier used a simple manual growth factor technique to determine where growth would be the greatest, that was an earlier evening. It showed for 1980 the southwest (i.e. High Level Bridge) with a growth factor of five, the northeast with three and the northwest with two. So we had an idea of the size of the problem.

The METS consultants came up later with similar figures using the gravity model and a lot of main frame computer time. The physical solutions of METS were freeways with a massive intrusion into residential areas.

CN and Land Development

In the early sixties CN, using Zeckendorf and I. M. Pei, had successfully developed Place Ville Marie above the railway yards in Montreal.

CN was looking for other opportunities and with most rail activity being in the west looked at Edmonton. Zeckendorf and I. M. Pei came to Edmonton with a proposal that they would develop a downtown plan. If the city adopted it then they would pay for the plan, if not there would be no cost.

The Zeckendorf/I. M. Pei plan showed three high rise office towers. At that time the old City Hall with its 11 floors was the highest building in the C.B.D. The locations were where now are located the CN Tower, the AGT tower and the Sun Life tower. The plan also showed the original beginning rail transit plan.

Ultimately the city said they did not accept the plan and then implemented it anyway. This was later settled in court and the city had to pay.

The main impact of the plan was that it changed the vision and horizons of city planning in Edmonton. It went from small town planning to big city planning.

CN promptly proceeded with the CN Tower and it became the western Headquarters of CN. The city helped in renting some space in the tower. A procedure that was used later again and again to help in making other towers feasible.

Twenty Years LRT in Edmonton (Part 1 - Continued)



Map of Edmonton LRT

The line south of University to Southgate went from approved in 1992, back to maybe to be included in a plan in 1998, except that the city engineers appear to favour bus rapid transit??!!.

Bechtel and Traffic Research Corporation

It was in 1964 that two companies were looking for work. One was the Traffic Research Corporation (TRC) in Toronto and the other was the Bechtel Corporation from San Francisco, Cal.

TRC had done a computer prediction study for Metropolitan Toronto. Instead of using simple assignment, they used a capacity restrained method of traffic assignment. It reduced the design for highway 401 to a manageable 4X3 lanes, instead of the 24 lanes first suggested. TRC also developed a mode split model.

Bechtel was working on BART (Bay Area Rapid Transit) in the San Francisco Region. And they were looking for other locations to implement BARTs. In the November 1962 referendum on BART the vote was 60.4% in favour (60% was required). This referendum was challenged in court and there was an injunction prohibiting any work in the interim.

Bechtel then proposed to look at rapid transit for Edmonton at cost, just so as to keep its staff together. Hence the Bechtel plan for rapid transit (1962-1963). Again the tunnel downtown was under 102 Avenue. This time there were three branches at each end of the tunnel, going southwest, west, northwest at one end and north, northeast and southeast at the other end.

Volume predictions were done by Traffic Research Corp.

The Bechtel plan had all intersections of track grade separated and all the lines were completely grade separated from all roads. It was naturally very expensive. It was the son of BART for Edmonton. The plan was received as information by City Council (i.e. forget about it). After the courts threw out the challenge to the referendum in the Bay area, Bechtel went back to work on designing BART.

Land Use Environments

There are ten LRT stations in Edmonton, with zoning around stations and along the corridor as follows:

Clareview Station (At grade; located in "Suburban" area; end of line)

Zoning is for High Density Residential/ Commercial

Belvedere Station (At grade, located in "Suburban" area)

Zoning is for Industrial/Commercial uses

Coliseum Station (At-grade; located in "Inner City" area, next to 18,000 seat sports arena)

Zoning is for Major Sports Stadium / High Density Residential

Stadium Station (At-grade; located in "Inner City" area, near 60,000 seat stadium)

Zoning is for Major Sports Stadium/ High Density Residential

Future Station at 96 Street between Churchill and Stadium (Underground).

Zoning is for "Commercial/High Density Residential/ Industrial". The shell for this station was made in case a transfer station for a line to the northwest would be needed. This concept originated with a functional design study by Delcan.

Churchill Station (Underground; located Downtown, also serves Edmonton Centre, Library, Citadel, Winspear, Canada Place and Convention Centre)

Zoning is for "Downtown Commercial/Institutional/Business/Retail". At the north end of the station allowance was made to connect with a tunnel going northwest. When the new city hall was built the opportunity was **not** taken to prebuild part of that tunnel.

Central Station (Underground; located Downtown)

Zoning is for "Downtown Commercial/ Institutional/Business/Retail"

Bay Station (Underground; located Downtown)

Zoning is for "Downtown Commercial/ Institutional/Business/Retail"

Corona Station (Underground; located Downtown):

Zoning is for "Downtown Commercial/ Institutional/Business/Retail"

Grandin Station (located on the periphery of Downtown, connects with a pedestrian way to the Provincial Government Buildings):

"High Density Residential" zoning surrounds the station.

University Station (Underground);

Zoning around the station is "Institutional"; i.e. education, hospital. Beyond the institutional land uses there is residential zoning in place which ranges from single family to high density.

Health Sciences, Proposed Surface Station. Would serve University Hospital and Jubilee Auditorium.

Belgravia at 114th Street and 76 Avenue (surface) would serve an old residential area. The 114th Street area is famous in Edmonton for resisting changes. The danger the neighbourhoods face is street widening or LRT. They fear redevelopment. This is not needed, however 114th Street is needed to channel traffic in an environmentally acceptable way.

Crawford (surface) would serve Government buildings. Also feeder buses from West Edmonton Mall and 122nd Street.

Lendrum would serve established neighbourhoods.

Southgate (surface) would serve a major shopping centre and a major Transit Centre. In addition there are very high density residential developments nearby.

Service to Crawford would require two more trains in the peak hours or no new equipment. Southgate would require four more trains or an additional 8 new cars (giving 15% spares).

Since most of the Southgate extension would be on the surface (lowest cost per km) it is astonishing that Edmonton is not proceeding with the LRT extension.

Twenty Years LRT in Edmonton (Part 1 - Continued)

METS an Engineering Plan

Meanwhile the METS plan was also not adopted by council, but used as gospel by the engineering department.

Numerous functional design studies were spawned by METS, all of them increased the land requirements, property taking, and ultimately construction or implementation costs.

The Highway Department meanwhile approached the city with freeways from the south, the west, the east and the northeast to link up with the future METS freeway alignments. The thinking is still there. Proposals to build a freeway in the MacKinnon ravine still crop up from time to time. In the Northeast the Manning Freeway is slowly being linked up to the Capilano freeway. The Yellowhead route became the main east-west link instead of the MacKinnon ravine. Edmonton has concentrated more on ring road freeways, such as the Whitemud.

The City's Transportation Department is now again road oriented. LRT appears to have a very low priority.

Public Transportation in Edmonton

In order to resolve the conflict between a roadway plan (METS) and a rail transit plan (Bechtel) I was retained by Edmonton Transit to produce a plan for Public Transportation in Edmonton. A draft was presented in September 1965.

The report recommended that three of the branches proposed by Bechtel not be proceeded with and that the rail transit lines go Northeast, Southwest and Northwest. At the same time it was proposed that freeways proposed in the transit rail corridors also not be proceeded with. In other words a compromise proposal, using for rail transit several rail corridors. These corridors would not be available for roadways.

Downtown service would be provided with a circle line. A single track tunnel under 102 Avenue and a single track line on the CN right-of-way next to 104 Avenue. The three branches would all connect into this loop. This loop idea was not accepted.

There was also a recommendation to create a transportation department, rather than having parallel road and transit departments with planning somewhere in between.

The reaction was interesting. I was called in to the City Commissioner of Planning at that time (G. Hamilton) and told to immediately stop work on this report, submit my bill to date and forget about it. Mr. Hamilton also stated that he did this on instructions of the mayor.

Mayor Dantzer's Election Campaign

It was a bit surprising to find a year

Expo Equipment

In September 1968 bids closed on the rail transit equipment used by Expo in 1967. The Expo trains were modelled on the Toronto subway cars, except that the trains were fully automated. The manufacturer was Hawker-Sydley of Thunder Bay. A peculiarity of the equipment was that the cars had air conditioning, but no heating.

If Edmonton wanted to use these cars, they would have to be modified by providing heating and to use overhead wire current collection. The manufacturers had made estimates of the cost of modifying this equipment for all year use. So Edmonton bid on these cars and on a number of rectifiers used by the Expo trains (750 V DC).

Edmonton got the rectifiers, but not the cars. The City of Laval was reported to have made a higher bid, so that the cars would stay in Quebec. It is doubtful that the City of Laval ever paid for the cars, they certainly never used them. Nor did anyone else. They deteriorated in storage and were eventually believed scrapped. It turned out to be a blessing.

later that Mayor Dantzer appeared to use some of the ideas put forward in my report. I phoned him at his house and questioned him on the fact that he had indirectly ordered me to stop work on a report and then was using its contents in an election.

He said he knew nothing about my report and had never seen it. He asked for a copy, which I delivered to his house. He later phoned back to say that he found it very interesting and repeated he had never seen it before.

In the fall of 1967 Alderman Ivor Dent (who later became mayor) asked for all past reports on rail transit to be brought to council. When staff did this, Mayor Dantzer mentioned that there was also a draft report on Public Transportation.

By that time Stan Hampton had become the commissioner (Geff Hamilton had gone to Calgary). Mr. Hampton phoned me and wanted 35 copies at once. After some updating 35 copies were delivered in January 1968.

The report was presented to city council together with a city report in March 1968. Essentially the recommendations in Public Transportation in Edmonton were followed. The first step now was to prepare a number of functional design plans and more detailed financial estimates for both capital expenditures (construction and equipment) and operating costs and revenues.

See next Delcan Designs on Page 7.

How do Passengers Reach the Stations?

At the residential end of the trip, the choices for reaching a LRT station are: walk, take a feeder bus, be dropped off by someone else, or drive and then park.

Since the Northeast line intersected both north-south and east-west arterials, most LRT passengers use a feeder bus route. Walk in is only attractive at the University and Grandin Stations. Other stations are usually beyond the 450 m walking distance.

The Park-and-Ride spaces available are well used, particularly at Clareview.

The downtown stations (Bay, Central and Churchill) are well connected to the Edmonton Pedway system. A number of underground, surface and overhead pedestrian walks that have been created over the years. Although there are a number of maps displayed in the Pedway system, the signing was designed by MKC. MKC are former officers of the Mossad, the KGB and the CIA, by habit they keep all signs which may guide anybody to any destination top secret and hidden from public view.

Signing on the stations is not much better. Train destinations are given as either northbound or southbound but not by station name. A compass does not help, because under Jasper Avenue the trains run east-west. Directional disadvantaged people just get lost.

Buffer Zones

There are no buffer zones in relation to LRT stations and corridors. The line is in a tunnel between University Station and Winston Churchill Station. The remainder of the line operates within an active, at-grade, heavy rail right of way, which is owned by the Canadian National Railway. As this right-of-way is surrounded primarily by industrial land uses, buffering is not deemed to be an issue or a requirement.

Land Development near Stations

The city failed to rapidly rezone the areas near Stadium and Coliseum Stations. In 1982 the recession started and the window of opportunity had been lost.

Development downtown regressed due to the approval of West Edmonton Mall. In fact there is urban decay at the east end of the Central Station. The planning predictions about downtown employment did not occur.

Consequently, a significant portion of the line continues to be surrounded by industrial land uses which offer little or no ridership potential.

The system is bus or car fed, with pedestrian distribution downtown, at the government centre and the university.

(Continued in box on page 7)

Twenty Years LRT in Edmonton (Part 1 - continued)

The Delcan Designs.

Delcan made several detailed functional studies. They proposed a Northwest to Northeast line, using the CN right-of-way, and a south line to the University. The south line initially was proposed to use the CP right-of-way and the High Level Bridge and then the University. Shuttle buses would be used for distribution through downtown.

The experience of Cleveland, Ohio was that keeping a rail transit line at the perimeter of the CBD was a mistake. The CP right-of-way alternative was suggested because of lower construction costs. However Delcan then studied various alternatives to go South. The final choice was to use the High Level bridge, and a tunnel through the CBD. As a result there would be an interchange station between the NW-NE line and the NE-South line at about 96 Street.

The space for this station with side platforms has been reserved in the LRT tunnel that was later built. **This station can still be developed, and an LRT line built on the surface serving McEwan College and the new VIA station.**

Incentives to Developers

The only "incentive" is a reduction in required parking for new developments in the downtown area. Parking requirements are 1/3 less than those required elsewhere in the City. This "incentive" does not appear to have been a serious motivator of downtown development.

Funding Arrangements

The Provincial contributions are shown in the table on page 4. The initial grant of \$ 45 million was also given to Calgary. The municipal debt portion of \$ 20 million was later eliminated with another debt reduction grant. Later grants were 75% of costs of transportation projects. The province paid 78% in total of Edmonton's LRT. Calgary got more money (\$ 304 million) but only 57% was funded by the province. Calgary has a greater surface network of 28.8 km length.

The on-going operation and maintenance of the LRT system is fully funded by the City of Edmonton through the municipal property tax base and fare revenues.

The Administrative Structure

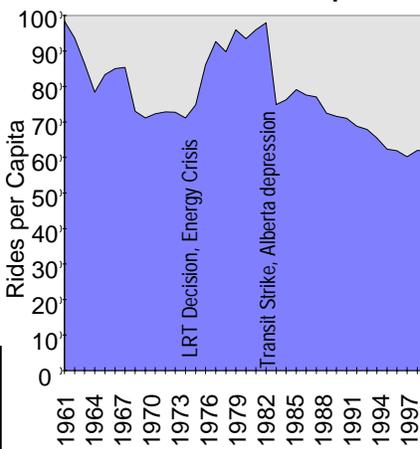
Edmonton's transportation system is planned, designed, operated and maintained by the City of Edmonton's Transportation and Streets Department. The public transport components of the system are operated by Edmonton Transit which is one of four branches within the Transportation and Streets Department. Within Edmonton Transit, the Light Rail Section is responsible for the daily operation of the LRT lines.

Tunnelling Experience

Edmonton's sewer and water department had developed over the years extensive experience in tunnelling. Edmonton had a stiff glacial till, which made tunnelling easy and far less costly than in other cities. Calgary for example with wet gravel, would have high tunnelling costs.

Because of the lower tunnelling costs, which proved to be the case with construction, an underground downtown line became a possibility. Bechtel and Delcan accepted the city's estimates.

Edmonton Transit Ridership Trend



The Bay Lobby

Since the Bechtel plan, 102 Avenue had an underground path reserved for rail transit. All underground utilities were located so as to keep that path free. The 102 Avenue location was felt to be the better location, being about halfway between the CN tracks or the north boundary of downtown and the river bank.

The Hudson Bay Company had its store in a heritage building on Jasper Avenue. It did not want to see a rail transit line built on 102 Avenue, bypassing its store and only serving Edmonton Centre and its rivals Woodward's and Eatons. They lobbied hard to have the line relocated to Jasper Avenue. The Bay at that time had always been keen on good transit services to their stores. It was The Bay that wanted a transit centre at Southgate, which was vetoed by Woodward's (who had a 60% share in ownership).

The Delcan designs found that to go from a transfer station to a tunnel downtown and having a minimum amount of tunnel, made a location on Jasper Avenue easier. Later when the original line was extended the Bay lobbied again for a station with access to their store. The Bay contributed financially to this station. In fact the station was named The Bay. When Woodward's closed (1992), the Bay took over its Edmonton Centre Store and moved to 102 Avenue.

The Political Process

Ivor Dent became mayor in October 1971. He defeated Reg Easton. Both Ivor Dent and Reg Easton had been in favour of Light Rail Transit. Reg Easton set about organising a campaign to convince the decision makers that rail transit would be good for Edmonton. He did this in the Chamber of Commerce, organising meetings and persuading council.

In the same period the University Extension department held a symposium (organised by Gerry Wright) and produced a report on Light Rail Rapid Transit. This report assisted in lowering the costs of rail transit by advocating more surface running. It gave numerous European examples on how that could be done.

At about the same time Council wanted to have a transportation plan. Don MacDonald, who had been the manager of transit, headed the planning effort. It initially proposed a freeway for the northeast corridor, wiping out many residences in the process. The local population at public hearings strongly objected. They suggested (with some help from symposium members) that the CN right-of-way be used by rail transit instead of a freeway. CN was not prepared to share its right-of-way with a road, so rail was the only alternative.

In 1974 Council approved Light Rail Transit and Mayor Ivor Dent helped in the sod turning for the LRT portal at 95th Street. However he was defeated in the fall elections by Mayor Hawrelak.

The Project Team

Don MacDonald became Project Manager. The project team was small, only 11 people, including secretaries. The construction engineer was Rudi Yacyshyn, while Walter Mitchell guarded the finances. Consultants were now hired to prepare detailed designs and costs. The first big problem was what to do with the dirt that was to be excavated from the tunnel.

The CN right-of-way at that time narrowed at 112th Avenue, because of a small ravine next to the Norwood legion. Negotiations led to a tentative agreement to fill the ravine and at the same time expand and grade the legion's parking lot. This would also allow the CN tracks to be straightened out.

Finances and the Province

The oil crisis of 1974 caused oil prices to increase dramatically. It also meant a return to transit and ridership increased. The province received more revenue from oil than it knew what to do with. When they saw that Edmonton council was willing to go ahead on its own with rail transit, they entered into an unique financing arrangement. (Continued on page 8)

Private - Public Partnership for Passenger Rail? by J. J. Bakker

The Minister of Transport wants a new Strategy

In a presentation to the House of Commons Transport Committee, the Minister David Collenette challenged the committee to find innovative ways to develop passenger rail services in Canada. Citing VIA's success in maintaining operations despite reduced subsidies, the Minister asked the committee to find new ways to develop rail service within the \$ 170 million annual subsidy. Earlier in Calgary the Minister called on industry, government and consumers to shape a new framework for a Canadian transportation strategy, with a revitalized passenger rail service as one of the key elements.

Twenty Years LRT in Edmonton (Part 1 - continued)

They made \$ 45 million available over a period of 5 years. Each instalment was paid at the start of the financial year, and the capital and any interest on short term investments had to be spent on capital transit improvements. The \$ 45 million was equal to the original estimates of the Northeast line from Central to Belvedere. Calgary received the same amount of money, but spent most of it on a new bus garage. This financial arrangement bypassed Alberta Transportation, who really knew nothing about urban transport.

The oil crisis also caused inflation to take off. New estimates had to be made allowing for continued inflation during the construction period. The new estimate became \$ 65 million and the difference had to be borrowed.

Borrowing required a money bylaw. It was on third reading that Mayor Hawrelak voted against the bylaw, and as council was equally divided, the project was stopped. It had to be explained to the Norwood Legion, that the ravine would not be filled and their parking problem would not be solved.

However politically that was the area that had supported Mayor Hawrelak. So the Legion members went to work and some time later Mayor Hawrelak asked that third reading be reconsidered. It was and it passed.

Court Challenge

For major civic projects citizens could by petition ask that the matter be placed to referendum. Mr. Nugent, a former MP, started a campaign against the bylaw. The City however contended that the rail transit line was part of the transit utility, and an expansion of a utility is not subject to the referendum requirement. This went to court and the city won. **It is worthwhile to remember this in case somebody wants to segregate LRT from transit and charge special fares. It would break an undertaking the city made in court. LRT is just another transit route, using different technology.**

And so the project could really begin. In Part 2 in our next issue a description on how the project management was handled and why notwithstanding inflation the project came in ahead of schedule and within budget.

The Challenge

Assuming that there is going to be a sincere effort to improve passenger transportation, the challenge for Transport 2000 Canada is to make constructive proposals. Here are some thoughts.

Privatization

Pure privatization would mean no more passenger rail services. Because of the hidden subsidies to road transportation the real costs are distorted. In addition the market is now not big enough to sustain pure passenger rail and certainly not in competition with each other.

The only time that several private operators could compete with each other would be in the peak tourist season. However there is a big difference in providing an all year passenger rail service and a peak season tourist service. In the case of the regular passenger trains, cars can be added. However the specialized tourist services, such as Rocky Mountaineer do cater to a specific market.

The claim that a tourist service like Rocky Mountaineer gets no subsidy, ignores the fact the employees all have to rely on Unemployment Insurance during the off-season, while VIA provides employment all year.

Even the bus industry is not able to provide a profitable passenger only service. The incremental cost of providing parcel services makes the intercity bus services profitable. In the eastern part of Canada the bus companies have lost the parcel business and are not able to make ends meet. The abandonment of VIA Rail passenger services has actually reduced bus services.

It is highly unlikely then for private or public enterprise to provide pure passenger rail services without subsidy.

The Canadian Taxpayer has invested in Passenger Rail equipment. The ownership of this equipment should be retained. Otherwise it may quickly disappear towards Mexico after a brief, unsuccessful Canadian operation.

We should remember the Blyth proposals of 1990, which killed the Canadian on the CP line. The best used train of VIA was cancelled because of a flimsy proposal, that could not work. Yet the government jumped at it, leaving the southern line without passenger rail service (or government MPs for that matter). We do not want that again in the west.

If There is Subsidy...

We have the following possibilities:

Case	Equipment Ownership	Operation
1	Private	Private
2	Public	Private
3	Public	Public
4	Private	Public

Case 1 would be Greyhound,
Case 2 would be St. Albert Transit
Case 3 would be VIA
Case 4 Equipment is leased for example.

Planning & Coordination

In any of these options the factor that matters most is planning and coordination. This is the area where the Royal Commission on Passenger Transportation failed completely.

For example I live near Salmon Arm, BC. Passenger trains disappeared in 1990. The Rocky Mountain tourist train does not stop. My nearest airports are either Kamloops or Kelowna. Greyhound provides bus service to both. Kamloops airport is located well away from the city or a highway. However although Highway 97 goes past the Kelowna airport, the bus does not go to the airport. One has to travel into Kelowna and then take a taxi back. It means extra cost and extra time. The result is I use a car. And this story can be repeated all over the country.

Need Coordinating Agency

So the real challenge is to create a coordinating agency to get various forms of passenger transport to work together and connect with each other. The competition is the car and not each other. Some solutions can be low cost. For example in Kelowna, the airport should not charge for curb busstop space. Unfortunately airports want to have parking revenue and do not care about public passenger transport. Since the privatization of airports this approach holds at most airports. Pearson Airport was not interested in rail access, for example.

A coordinating agency should try to get a public transport system in place with common terminals, timed connections and through ticketing. The agency should be involved with airports and airlines, VIA, GO Transit, Westcoast Express, BC Rail, Amtrak, Greyhound and other Bus Lines, even limousine and transit services. Because some jurisdictions are federal and some provincial or even municipal, regional agencies would also be needed.

Since part of the Minister's challenge is that there is no budget, coordination will initially have to be voluntary.

The biggest challenge however is to make all providers of public transport realize that they are competing with the car and not with each other.

Private - Public Partnership for Passenger Rail? (Continued)

What is the Role of VIA?

Since there is no VIA Act, the real role of VIA is unknown. VIA recently restructured and now has Vice-Presidents for Eastern, Corridor and Western Services. It is not clear who is responsible for remote services.

- Should it plan, market, finance, operate and coordinate passenger rail?
- Should it plan, market, finance and coordinate passenger rail, but contract out the operations of trains.
- Should it only operate trains but not coordinate passenger transport services?
- Is there another model?

VIA in its *submission* to the Transport Committee suggests three alternatives:

1 Privatization. *It would mean profit would come before public interest. Unprofitable lines would have to be sustained with subsidies at a level only the private operator would deem appropriate. Back to costly costing rules?*

2. Franchising. *VIA would become the government's agent responsible for awarding franchises, monitoring the private sector operators and acting as the guardian of the network, ensuring service continuity. Franchising could be regional, which could fragment the network. 15 year terms are envisaged.*

3. Commercial Crown Corporation. *In this case VIA would become a new corporation with the tools necessary to operate as a commercial enterprise, and exploit market opportunities to their full advantage. It would involve private/public partnerships, particularly in the management of rolling stock.*

According to VIA all alternatives require ongoing government funding with a commitment over a long time.

The Minister is impressed with Britain. But does the Minister know, that in Britain there is less coordination than ever since privatization. The examples of coordination of public transport are on the continent of Europe, countries such as Denmark, Holland, Germany and especially Switzerland. Even California is well ahead of anything in Canada.

Access to Infrastructure

The VIA submission also stresses the importance of access to infrastructure and on what terms. VIA has no leverage to negotiate the best possible access at this time. VIA wants access to the track when the customer demands it.

The clash here of course is that passenger rail operates on a schedule while freight operates on a random basis.

Maybe combined scheduled fast freight/passenger trains are the answer. Freight customers might also like the alternative of reliable scheduled service.

Via believes that there is ample infrastructure in place.

Visits Abroad

The Royal Commission on Passenger Transportation made a trip of Europe and learned nothing. They visited Dutch Railways in Utrecht but only talked to economists and failed to see the common terminal of Rail, LRT, Regional Bus and Transit, all connected to a shopping/cultural centre. Nor did they see the new Central Station in The Hague where the roof above the platforms has LRT and Regional Bus (as well as office developments). The Hague could be a model for the Union Station of Toronto.

The Royal Commission (and their thoughts still dominate in Transport Canada and the Transport Committee) failed totally to look at intermodality and coordination. So before the Transport Committee or anyone else goes abroad, there should perhaps be some input as to what they should see and to whom they should also talk.

More Revenue, Less Costs

Since the Minister failed to get additional funding for VIA, the problem for VIA remains to increase revenue and reduce costs.

Increase Revenue.

The option of increasing prices is showing to be counterproductive. Use of trains is being restrained by now due to comparatively high prices.

Revenue increase has to come from new sources such as parcels, mail, Cargo-Rail, even containers or roadtrailers. Partnership deals with parcel carriers, the post office and the operating railways would be needed. A partnership would be a better approach than starting a separate organisation.

VIA in its submission does not mention parcels, mail or other revenue. Yet Amtrak finds that its transcontinental lines are dependent on it. The Empire Builder has five express cars for example and that justifies daily service.

The other way of increasing revenue is to provide more service. VIA does mention this, but emphasises tourist traffic. That should be a red flag for the Rocky Mountaineer people.

Additional Sources of Revenue

Lloyd Axworthy, when still in opposition, promoted the idea of running daily daytime trains between Winnipeg and both Calgary and Edmonton. Using multiple unit tilting rail cars, they could make that trip in 13 hours (The Canadian does it in 15 hours). The speed would have to be raised to 120 km/h (72 m.p.h.).

Such a scheme would only pay if diesel multiple unit flat car container units were added (like they now operate in Germany and are planning in Britain).

Together with daily transcontinental services, passenger rail and express freight would become very attractive.

Reduce Costs

On the eastern and western divisions of VIA the equipment dates from more than 40 years ago. VIA says the limit has been reached. Bilevel cars would reduce operating costs, but again VIA is denied capital funding. Whether lease-purchase would provide the means should be examined. If the core winter service was new bi-level cars, then in the summer additional renovated HEP cars can be added (longer life with less use).

In the corridor the picture is much clearer, in that locomotive hauled equipment is far too costly. As described in our last issue Multiple Unit Diesel Rail equipment is needed here.

Equipment Costs

The cost of rail equipment is high, but equipment can last a long time. So if there is privatization, for a contractor to commit to new equipment requires a long time frame and therefore long time commitments or contracts. Rocky Mountaineer can only afford about 1 new car per year. They keep using old but repainted cars, just like in Britain.

In the privatization in Britain, leasing companies were formed, so that operating companies could lease the "old British Rail" equipment. Now some contractors find this equipment is not good enough (British Rail had been starved of investment) the contractors wanted longer contracts so they can get an economic life out of new equipment. And they got that.

In any privatization of VIA it would be necessary to keep the equipment in public ownership and lease it to a contractor.

Private - Public Mix

This mix can be provided in a variety of ways. The most obvious one is the contracting out of services. This is already happening in food services or coffee (Starbuck supplies VIA). Another case could be locomotive or car maintenance.

An other possibility would be to add roadtrailers or container flat cars to passenger trains. The private-public mix would here be between say CN (Private) and VIA (Public). Mail and parcel movement could also be moved this way, where the alliance could be with the Canada Post, VIA and say Greyhound.

Another possibility would be the provision and maintenance over a long time of equipment, say multiple diesel car units in the corridor. It could reduce costs of operation and avoid capital expenditures.

Conclusion

The Government has good intentions, however the real signs of progress will be a VIA Act and a long term government commitment that justifies investment.

So far we have positive talk, which is a welcome change. Hopefully there will also be positive action.

High Speed Ferry Accident

The high speed catamaran ferry Discovery, operated by Stena Line between Harwich and Hook-of-Holland, was damaged because of high speed. The front was heavily damaged because of high waves in the north sea.

The ferry is being modified with a special radar which measures wave height, so that the ferry can reduce speed in time. The ferry was relying on weather forecasts. [Source: Radio Nederland].

Eurostar Meals

The International Railway Gazette of January 1998 reports that Eurostar will provide all passengers with a full meal.

I doubt my comments in our previous issue had anything to do with this improvement. Just my luck to hear about the improvement a few months after having used the "service". J. J. Bakker.

P.E.I. against toll highway

The premier of Prince Edward Island has complained to Ottawa about plans for a toll highway in New Brunswick. Pat Binns says traffic coming to P.E.I. from Ontario and Quebec will have to use the highway, and it could hurt tourism.

Airlines now profitable

Canadian Airlines is finally out of financial trouble and the company earned a modest profit of \$5.4 million for 1997. The \$5.4 million profit was an improvement of \$192.5 million compared with a loss of \$187.1 million in 1996.

It's the first time the company has flown into the black since 1988. Canadian Airlines was facing collapse in late 1996. With government help, the company embarked on a four-year restructuring plan in 1997. The plan included wage and cost cuts, government tax concessions, fewer flights and smaller planes on less profitable domestic routes.

Canadian International has suffered from the Asian Economic crisis. The new code sharing agreement between American and Japan Air Lines as well as China Eastern Airlines Corp. will not help to improve flows through Vancouver.

Air Canada had a profit of \$ 427 million (\$ 201 million due to asset sales). Air Canada is building up a cash reserve of \$ 1 billion to be able to face the next recession. Air Canada still wants more by having more flights across the Pacific. Their aim remains to absorb Canadian International. It is all part of the basic Economics 100 course, how to create a monopoly.

Westjet, which cut its Winnipeg service when Greyhound started flying, is now back with 9 flight a week to Calgary with fares 50% less than other carriers.

Canada West Cargo will start an international heavy cargo airline in the fall of 1998. Its CEO is another former CP employee, Richard Moreau.

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European Union and Swiss Agree on Trucks

In January 1998 the European Union reached an agreement with Switzerland on charges for truck traffic through the Alps. It should open the way for both sides to conclude a broad trade and cooperation pact. The agreement still has to be approved by the European Transport ministers.

Under the agreement Switzerland and the European Union will guarantee environmental protection for the Alps.

The Commission said in the statement that the breakthrough on truck charges "should open the door to the successful completion" of a broader cooperation agreement between Switzerland and the 15-nation EU which has been under negotiation for five years.

It was noted however, that final agreement in transport would have to be part of an overall agreement on all of the issues under negotiation.

Other areas in the proposed pact cover free movement of people between Switzerland and the EU, easier trade rules, research cooperation, market access for farm goods, public works rules and technical trade barriers.

The question of how much Switzerland can charge for truck transit had been the main sticking point in the transport talks.

Switzerland, not an EU member, wanted the fees to be high enough to encourage transport companies to use rail rather than road transport, but the EU insisted on low road charges.

The EU maintained that Swiss transport policies had contributed to diversion of traffic, extra costs and environmental damage in the Alpine region.

Many trucks were using Austrian and French roads because Switzerland imposed a limit of 28 tonnes for heavy goods vehicles when most European international fleets used loaded trucks of 40 tonnes, the Commission said.

The economic consequences of the Swiss policy are felt by every member state because of the higher transport costs that result from half-empty lorries crossing Switzerland or from diversion around Switzerland, according to the EU.

The total cost to EU business of the diversion was conservatively estimated at 160 million ECUs (\$176 million) a year, excluding the costs of pollution and accidents on the longer journeys.

Switzerland and the EU reached a framework agreement under which the 28-tonne weight limit could be phased out by 2005 and replaced by a nondiscriminatory charging system, the Commission said.

The average fee paid by trucks for transit through the Swiss Alps would be between 325 and 330 Swiss francs (\$225 and \$229). Before 2005, quotas for 40-tonne trucks passing through the Swiss Alps would be applied, it said.

In our view the EU should adopt the Swiss policies, rather than that the Swiss had to change. The EU has too many trucks and should divert to rail.



Transport 2000 West Canada Newsletter

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for Manitoba

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Our Mission: *Transport 2000 Canada represents the interests of public transportation by promoting socially, environmentally and economically sustainable policies, programs, services and actions.*

The Debate on Rail Transit Technology for Vancouver, see Pages 6 and 7



LRT
or
Sky
Train?

Tramways and Urban Transit, UK



Photo taken from Transport 2000 BC Website

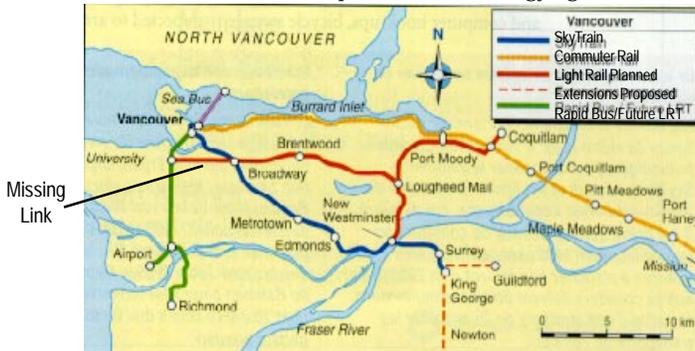
Modern Low Floor Light Rail Transit of a type as originally proposed for Broadway - Lougheed Line, this particular unit is made by Bombardier for Saarbrücken, Germany.

SkyTrain in Vancouver, the technology was imposed by the Socred Government in the eighties to show off at Transpo 86. Now the NDP wants to impose this technology again.



Railway Magazine NL.

Tilting Diesel Multiple Unit of Germany. This unit was sent to Israel for testing and demonstration.



Missing Link



Railway Gazette International, UK

French Diesel Multiple Unit favoured by VIA and Transport Canada. Neither the German nor French units allows passage between coupled units. Both the German or French Unit could be given a different front-end.

Also in this Issue:
Transport Committee,
Submission and Report
Accident in Germany
Correspondence
Edmonton LRT Part 2
and other topics.



The Danish IC-3 front-end, fitted to a Belgian train made by Bombardier. This front-end allows passage between units for improved productivity.

Editorial by J. J. Bakker

This is the first time that we are attempting colour in this newsletter. Because of the expense and time it takes, it is not going to be a regular feature. However the issues of equipment and technology are evident nationally and in British Columbia, and colour pictures best illustrate the choices.

The past three months have seen some major developments. The House of Commons Standing Committee on Transport has held hearings and invited Transport 2000 Canada to one of its meetings. The High Speed Train Task Force brought out a report suggesting that taxpayers should fork over \$ 7.3 billion for infrastructure, but kindly offered that the government can keep ownership. The Committee published its report on June 11, 1998 and accepted some of our proposals. Many others were not addressed.

In British Columbia the premier who had always advocated LRT for Vancouver suddenly wants SkyTrains. The SkyTrain advocates have successfully convinced many that if you grade separate you should have SkyTrain, when the opposite is only true: If you have SkyTrain technology you have to grade separate. LRT can be grade separated as well, but can also operate at grade (in other words has flexibility which SkyTrain has not). In B.C. it is lots of politics and little expertise.

I spent some time in Europe. I was impressed with an Hungarian Intercity train. Also travelled on a German Interregional train with some different compartment arrangements. I last visited Berlin in 1987 and did so again this year. In 1987 I toured the western transit system, and it was interesting to be able to use the entire system this time around. In former East Berlin there are streetcars or LRT, the west has double deck buses. In all of Berlin there is an extensive rail and metro network.

What is most noticeable in Europe is the extensive amount of work done on infrastructure. Half of the money is spent on railways. Yet in The Netherlands there was opposition to High Speed Trains, the population want to see the investment in LRT, rather than shortening travelling time for the Thalys by 15 minutes. In Holland they are also planning and designing the Betuwe Line, a freight only railway from the port of Rotterdam to the German border. This electrified line will have sound barriers along its entire length right across the country!

CP and CN are working to see if they can use each others lines between Kamloops and Vancouver, CN westbound (easier grades), CP eastbound. I remember making that suggestion in an article for the Page of Dissent in the Edmonton Journal in 1965. So it took the railways 33 years. Talk about High Speed! So maybe there is progress.

Let us hope that our recommendations not yet addressed will be acted upon in a shorter time span than 33 years. However all the suggestions we make we also gave to VIA and they never respond or ask a question. In fact I doubt they even read it carefully. Pity we cannot force an exam on Government officials, VIA or even members of Committees.

So although there are discouragements, we also have some successes. We do need help though. Please recruit more members. All the work is done by volunteers, so all money goes to the cause.

This issue went to press Saturday June 20, 1998

Meeting the Transport Committee

[see Pages 4, 5 and 6 for Report, references to the report are in italics]

On March 18, 1998 a delegation from Transport 2000 Canada met with the Transport Committee of the House of Commons. The committee was studying, at the ministers request, the future of passenger rail service in Canada. The Chairman, Mr. Raymond Bonin (Nickel Belt, Lib.) opened the meeting by saying that the Committee was interested in our contribution to passenger rail in Canada.

It should be noted that our meeting came just after the committee had met with the two major railways, CP and CN. These meetings had not gone well, as the railways were either obstructive or claiming numerous difficulties, but neither railway had any solutions. But they did want more money for the use of track.

The committee must have felt a relief that finally someone came with positive suggestions and a constructive and realistic approach.

The submission of Transport 2000 Canada consisted in fact of several submissions. There were written submissions by the national organization, Transport 2000 Atlantic, Transport 2000 Quebec and from the West on behalf of the Western Transport 2000 organizations. The western submission can be seen in full on the Transport 2000 B.C. website: <http://www.vcn.bc.ca/t2000bc/>

Transport 2000 Canada proposed to the Committee

- ♦ that the government pass a VIA Rail Canada act making VIA Rail Canada a commercial crown corporation. Such an act would permit VIA to operate commercially and to borrow on the open market. [Accepted **see Recommendation 9**]

- ♦ that the government makes a commitment for 10 to 15 years of \$170 million annual support for VIA. [Accepted in **Recommendation 1, but modified in Recommendation 4**]

- ♦ that VIA be given stable access to rail lines. [see **Recommendations 7 and 8**]

- ♦ that railways which host passenger rail services be allowed to write off investments in 8.5 years as in the USA rather than 20 years as is the case now and that these railways only charge avoidable costs as is the case in the USA. [Not addressed]

- ♦ that either the gas tax be increased or that at least 2 cents per litre be allocated to intercity rail, intercity bus and urban transport. This amount should be increased to 4 cents over a period of five years. [Not addressed]

The opportunity is currently there because of low gas prices, interrelated with the fact that Canadians consume a phenomenal amount of gasoline. Allocated gas taxes are used in the U.S.A., in Montreal and Vancouver.

In light of our obligations under the Kyoto accord, one way of improving our performance might be to increase the use of transit by our commuters and citizens on other trips.

An allocated tax would provide a reasonable sum of money. It wouldn't be a fortune, but \$600 million would go a long way in a year, particularly if we consider that about one-third of that could go to improve intercity rail in the first years. It could decline in proportion later as the total amount rises to \$1.2 billion in the course of five years.

Atlantic Submission

The Atlantic Submission mentioned that bus traffic had declined after passenger rail had been removed. The Atlantic run and the Halifax - Sidney services should be restored. [Not addressed]

A plea was also made to preserve railway corridors that are being abandoned by the railways. [Not addressed]

Western Submission

The Western submission pointed out

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TRANSPORT 2000 CANADA is a national federation of consumers devoted to advancing the public interest in transportation of all modes. A registered charity, it is involved with research, public education and advocacy of public transport issues. It publishes a newsletter "Transport Action".

TRANSPORT 2000 CANADA [Alberta Branch], Transport 2000 BC, Transport 2000 Saskatchewan and Transport 2000 Manitoba are separate organizations in the western provinces. Half the membership fee goes to the Federal Organization.

first the need for coordination between modes. To accomplish that we consider that a position of Coordinator of Public Transport should be created within the Ministry of Transport. This coordinator should also look at common terminals and better links to and from airports. The challenge for this coordinator will be to make all providers of public transport realize that they are competing with the car and not with each other. The thinking has to become one of interconnecting networks rather than competing lines. **[Not addressed]**

The challenge from the Minister of Transport is to find innovative ways to develop passenger rail services in Canada. This appears for the first time to put an end to the incremental destruction of VIA. We see the problem as a need for increased revenues, reduced unit costs and stable funding. We also see a relation to emission reduction and a need to transfer more truck traffic to rail. Stable funding would best be obtained with an environmental levy on the gasoline tax, split between VIA, Urban Transit and the Environment.

The submission goes into detail as to what we see as the deficiencies in the present system. Increased revenue would have to come from increased service and carrying express freight (as Amtrak does). We see possibilities of partnerships with the freight railways, by which freight is carried in return for free access to tracks and an engineer **[The carrying of freight was not addressed]**

Unit Costs can be reduced with new equipment. The most promising savings can be made in the corridor by using Passenger Diesel Multiple Units (PDMU). We give requirements like distributed power, tilting, being able to move between coupled units and being able to couple to Freight Diesel Multiple Units (FDMU). The latter would carry trucks, truck trailers or containers. The DMU's could also be used on remote services. The bids for DMU's should examine the alternatives of purchase, lease or lease-purchase including lifetime maintenance. The units should be designed for productivity and efficiency rather than appearance. **[The issue of the type of equipment to be used was not addressed by the Committee. It is of course more a subject for VIA to deal with].**

We favour that VIA becomes a frugal Commercial Crown Corporation. The VIA Rail Act should give VIA real powers regarding rail access, and we see a need for an arbitration mechanism to settle disputes. Similar access requirements are needed for commuter trains and cruise trains. **[These suggestions are in the report].**

Discussion with the Committee

The Reform Party did not like the proposals for a tax increase or cross-subsidization. It was pointed out by us that GO Transit originally was proposed in order to relieve the highway system in the peak hours. Providing peak-hour trains was considered to be cheaper than building an additional freeway, which was not required for the normal traffic for the rest of the day. So cross subsidization in that case was considered to be a good investment because it made use of resources that were already in existence. The same applies frequently in city transit in peak hours, in that at midday there is no congestion, but during the peak hours there is. Maybe we can get people to drive to parking lots and then use public transport to the final work destination. Reform agreed that an integrated transportation system has merit. Reform also questioned the need for High Speed Trains, which was mentioned in the Quebec submission.

Reform also did not like the idea of a crown corporation. Since 1993 this current government has privatized most of its crown corporations, whether they be railways or airlines or harbours. By and large, some of them have been successful and it seems to have saved the taxpayer a lot of money. However, I do agree the taxes that are collected from fuel tax certainly should be returned to infrastructure upgrading and renewal. The problem in this particular case is that VIA doesn't run on its own infrastructure. All the infrastructure it currently uses is leased or rented.

Our response was that if passenger rail was profitable, privatization could be considered. However it is not profitable anywhere in the world. In that case the private company would require an ever increasing subsidy, without the government having any control.

The Liberal Party questioned the commitment of a subsidy for 10 or more years, so that VIA could borrow money for capital improvements. The question was: "How would VIA Rail, other than having the capacity to borrow, get the fundamentals right so that it could be financially viable? Is the solution you're proposing the dedicated tax, or are there ways to make it operationally efficient?".

Our answer was to go for functional equipment, in other words so that you minimize manpower requirement and reduce costs. It would take about five years to pay for replacing *The Canadian* with bi-level equipment and have the same service provided, but there would be reduced cost per unit because they're far more efficient to operate. The same is true for multiple diesel units for passengers. Secondly there is the opportunity for partnerships with the operating railways by moving express freight attached to passenger trains.

On the matter of track capacity, which was a problem raised by CN, our response was that CN had closed the Ottawa Valley line and was diverting trains through Toronto, an extra 150 miles. By using the CP line between Ottawa and Sudbury, they could free up capacity.

Our delegation made the suggestion that if the committee were to travel, they not only go to Britain, but also go to the continent, in particular Holland and Germany **(they went to Britain and France)**. Also they should talk with Amtrak. **(They did)**.

John Pearce, President of Transport 2000 Atlantic expressed concern with the preoccupation with making money. "I think we have to look at making money in a global accounting sense, because, for instance with Kyoto, we have to find a way to reduce our environmental emissions and our energy use, and one of the ways in which we can do that, replacing some of the short-haul air traffic, and particularly automobile traffic, with rail service. But a lot of items, such as environment go into this global costing. I am just arguing for a much broader consideration than only the bottom line".

The **Bloc Quebecois** was positive to the recommendations made by Transport 2000, particularly as regards the Kyoto commitments. They felt there should be a commitment from this government to passenger railway transportation. "The CP and CN representatives who appeared before us said bluntly that they were in business to make money. They will have nothing to do with passenger rail transportation in Canada if it is going to decrease their profitability".

The **N.D.P.** did not have any questions. A member like Ian Angus is surely missed on this committee.

The Committee's report is on pages 4 and 5, the dissenting views of Reform, NDP and PC parties are on page 10.



Pendolino, a tilting train could be an alternative to Lynx.



German ICE Train.

Transport Committee Reports on Passenger Rail called: THE RENAISSANCE OF PASSENGER RAIL IN CANADA

A Positive Report, But Quite Timid In Its Recommendations

Ref. <http://interparl.parl.gc.ca/InfocomDoc/TRAN/Studies/Reports>

VIA Rail Canada Inc. (VIA Rail) was established in 1977 without a legislative mandate and, in 1978, became a Crown Corporation by Order in Council. It was given the responsibility for intercity passenger rail transportation previously operated by the Canadian National Railway Company (CN Rail) and the Canadian Pacific Railway Company (CP Rail). Since its inception, VIA Rail has been plagued with serious and continuing problems: antiquated and inefficient equipment; bad on-time performance; poor customer service and marketing; outdated work rules; and low employee morale.

During the past five years, VIA Rail has been pursuing a business strategy aimed at shifting its corporate culture from a

top-heavy bureaucracy, focused on the size of the government subsidy, to a lean structured, customer-oriented business focused on passengers.

While costs have been reduced and efficiencies have been gained, VIA Rail is at the point where it needs new equipment and infrastructure as well as a larger passenger base to grow its business in a significant way.

The Committee looked at financing options in the United Kingdom (U.K.), France and the United States (U.S.); how passenger trains can integrate their operations with freight railways; as well as governance models that could be applicable in Canada.

Committee Recommendations (with Comments by the Editor)

1. **That the government define and commit to long-term support, not less than 10 years,** for passenger rail objectives in Canada, including the route network, level of service and long-term stable funding to allow stakeholders to recapitalize rolling stock and infrastructure and enhance passenger rail services.

Comment: This is an excellent recommendation.

2. **That the government announce its new long-term policy objectives no later than September 30, 1999.**

Comment: This time period is too long. This government's mandate is until summer 2001. The window of opportunity is not very long.

VIA Rail's Role

Our passenger rail services have to be adaptable and flexible enough to address the variety of needs that are demanded by the travelling public. If this is not done, the passenger rail market will disappear. In order to achieve this goal we believe it is time to reassess VIA Rail's role and look at the possibility of allowing other service providers into the passenger rail market. There may be opportunities for the private sector, like with tourist trains, to develop and grow markets while relying less on government subsidies than is presently the case.

The Committee therefore recommends:

3. **That the government allow for and encourage innovative public and/or private partnerships on segments of the rail network so that all services might be delivered in a cost-effective and efficient manner.**

Comment: If this is a justification for Rocky Mountaineer to take over VIA West, we should have no part of that. The private-public partnerships should be sought in moving express freight, parcels and mail. That subject was ignored by the committee, even though they talked with Amtrak

Subsidy Level

In relation to subsidies, we heard that VIA Rail required a long-term commitment in terms of money from the federal government. This is no different from any other country when it comes to the provision of passenger rail services. They are all subsidized. The questions that must be answered are: How much should the subsidy be? Can it be lowered under the current situation?

Can the private sector provide a more efficient service at a lower subsidy level? And, how long of a financial commitment should be made to VIA Rail or passenger services by the government?

While we cannot say for certain what the subsidy level should be, we are of the opinion that this financial commitment cannot be open-ended. Some control has to be placed on the passenger rail operator receiving the subsidy. Great Britain is attempting to do this through its franchising agreements, where subsidy levels are scheduled to decline over the term of the franchise. Without this type of discipline, the subsidy levels could rise to truly unacceptable levels for a very long period of time.

Therefore, the Committee recommends:

4. **That the government commit to stable funding for passenger rail in the amount of \$170 million annually, to be reviewed every two years.**

Comment: This recommendation is contradictory. Unless the review would increase the subsidy, it would not be possible to borrow for new equipment with the uncertainty that this recommendation causes.

Remote Services

During our study we heard testimony regarding the definition of what constitutes a remote service.

A re-examination may be required of the eight remote services operated by VIA Rail to ensure that they are truly remote and should be provided in the public

interest. If they do not meet the criteria of remoteness then the government must address the question of whether or not they should be subsidized.

Therefore, the Committee recommends:

5. **That the government undertake an immediate review of all services that have been designated remote in order to ascertain which of these are truly remote. Those routes designated as remote must be protected in the public interest and funded through a separate federal allocation.**

Comment: The separate funding of remote services is long overdue.

Competition

In relation to private sector ownership of passenger rail services, one issue that arose was that of competition between the private sector and a subsidized rail service (i.e. VIA Rail). Depending upon the model chosen for the provision of passenger rail services in Canada, this issue would have to be addressed to ensure a "level playing field" is attained between the private sector and a subsidized public service. We believe, that as far as practical, competition should be fair and reasonable.

Therefore, the Committee recommends:

6. **That the government ensure that, with regard to competition in the passenger rail sector, no undue hardship be placed on the private passenger rail operator by a passenger rail subsidy, thus ensuring a level playing field.**

Comment: The Committee did not have the time or the data to look into the many hidden subsidies given to the bus or airline industry. Considering that 90% of traffic is by car, the subject of coordination should have been addressed. However the Committee failed to do so.

Committee Recommendations (with Comments), Continued.

Track Access

One of the key issues for the Committee to deal with was that of track access. In order for a passenger service to be more viable, especially in the Montreal-Toronto corridor, it must have adequate access to the track so that more travelers will be attracted to the service. We believe there is additional track capacity in the corridor and that passenger services should have adequate access to it.

If it is accepted that there is some additional capacity available in the corridor for passenger trains, we are faced with the question of how to obtain the right to use it. Basically, there are three approaches that the government can take to address this issue: (1) negotiation; (2) legislation that would provide rights of access; or (3) legislation that would divorce track ownership from freight carrier operations.

The option of track ownership by a third party would be tantamount to nationalization of the roadbed. A private or public body could be created to own, manage and allocate space on the track. **[Comment: The Government should have thought of this at the time CN was privatized. It may still be possible to form a utility for infrastructure between CP and CN.]** However, this seems to be a rather cumbersome and intrusive approach to allocating track capacity and an unnecessary encroachment on private property rights. It would likely be more efficient to let train operators manage the infrastructure as this is part of their core business.

Having said this, the Committee believes that the optimum solution to track access is through meaningful negotiation between the freight railways and passenger operators. An atmosphere must be created whereby passenger operators can negotiate reasonable terms of access with a track owner. Perhaps one such tool for improving the environment for negotiations would be legislative provision of "running rights" for passenger rail operators. In effect, running rights provide legal permission for one railway to operate over the track of another railway company. The rationale for these rights is to allow a railway to avoid constructing costly infrastructure when underutilized capacity is available on another railway's lines, allowing for more efficient railway operations and to ensure that the public interest overrides competitive private interests.

Most agreements for running rights are voluntary. That is, they are voluntary commercial agreements between two railway companies. However, when a voluntary agreement cannot be reached, there are provisions for running rights in the Canada Transportation Act (s.138),

whereby a railway company may apply to the Canadian Transportation Agency (CTA) for the right to operate over the lines of another. The Agency may grant the right, subject to any conditions it may impose, if it deems access to be in the public interest. If the railways cannot agree on the amount of compensation to be paid by the railway obtaining the right, the CTA may set the amount of compensation. Running rights, therefore, provide the necessary catalyst to "kick start" meaningful negotiations between passenger and freight railways on the capacity issue.

Therefore, the Committee recommends:

7. That the government encourage the freight and passenger railways to negotiate reasonable track access agreements within 18 months, ensuring that passenger rail providers can grow their business and deliver cost-effective and efficient services; and

8. That the government make it explicitly clear that, in the event that "good faith" negotiations for infrastructure access are not forthcoming, the access provisions for running rights contained in the Canada Transportation Act will be invoked to ensure fair and reasonable access for passenger rail services to essential rail infrastructure.

Comment: A carrot and stick approach that may work.

Governance

The models we have looked at each have their pros and cons and, as we stated in the report, the four options are not mutually exclusive. The contents of each can be combined in different ways to multiply the number of options that are under consideration.

While not being specific, the Committee believes that whatever option is chosen, it should contain a number of key elements to ensure its success. These include: greater flexibility for the operator; the ability to provide a variety of services to meet the market demands of the travelling public; a clear definition of the passenger rail network to be operated and at what service levels; the ability to accommodate public/private partnerships in the provision of passenger rail services; and a mechanism to ensure that the passenger rail operator adheres to a solid business plan in the provision of its services.

Therefore, the Committee recommends:

9. That the government confer commercial Crown corporation status to VIA Rail to provide greater operational flexibility and access to capital; and

10. Furthermore, the government, through an independent government agency, should, within two years, pilot-test the franchising of selected segments within the VIA Rail system.

Comment: To make VIA a commercial Crown Corporation is a good move. To have an independent government agency to do franchising within the VIA system seems to be a confused approach. Why not recommend that VIA be encouraged to franchise.

The Lynx Project

(see also Page 8)

The Committee is attracted to the concept of a major improvement in inter-city transportation in Canada as would be the case with high-speed rail in the Quebec City-Toronto corridor. Because of the scale of government contribution required, we believe that the Minister of Transport should very carefully consider federal government participation in the Lynx Project. Therefore, the Committee recommends:

11. Given the potential for high-speed rail in the corridor, the government should participate with the governments of Quebec and Ontario in Phase II of the Lynx proposal to a maximum of \$25 million over 41 months, with the balance of government funds coming from the provinces of Quebec and Ontario.

Comment: This recommendation keeps the project alive and postpones the big decision: Should Canada spend \$ 7.5 billion on infrastructure? Reform suggests that Lynx should be a stand-alone study before money is spent. The P.C. Party is opposed to any expenditures on High Speed Rail. (see Page 6).

A Life Sentence in Canada?

In The Netherlands if you get caught speeding 30 km/h over the speed limit, you will have your car confiscated. As a courtesy the police will take the driver to the nearest railway station so he or she can continue the trip.

If this rule was applied here in B.C., say at Salmon Arm, and a driver was taken to the railway station, it would amount to a life sentence. Since 1990 passenger trains do not stop here any more, not even the Rocky Mountaineer Tourist train.

No Diesel Light Rail in Canada?

A report by KPMG and IBI says that Diesel Light Rail vehicles made in Europe are not suited to North America. One of them the RegioSprinter performed well in Calgary in 1996. They suggest refurbished Budd Rail Diesel Cars, which require 2 men to operate. If not, why not?

Opposition Parties Minority Comments on Transport Committee Report

Reform Disagrees

Reform disagrees with designated funding for 10 years. Instead its objective is: **1. That the government clearly define its long-term policy objectives for passenger rail service in Canada including the route network, level of service, eligibility of service providers and level and conditions for federal support.**

Comment: And when all that is done, it will still need a funding commitment or nothing will happen.

Reform also disagrees with #4 and #6. It wants to see a subsidy based on performance and wants to see competition with the least amount of interference by the government. **Comment: Like in the bus industry the market is not big enough for multiple providers. And like deregulation in the bus industry, there will only be bankrupt providers.**

Regarding track access Reform wants these problems resolved by track owners and passenger rail operators, without government regulators. **Comment: The objectives are so different that a form of arbitration is needed.**

Reform also does not want to see VIA as a Commercial Crown Corporation. Instead they recommend: that recommendation 9 be deleted and be replaced by a recommendation that operators be given maximum managerial flexibility and the opportunity to provide a variety of market-driven services including con-

tract maintenance of equipment and the carriage of mail and express. **Comment: Does a Commercial Crown Corporation exclude maximum managerial flexibility and the opportunity to provide a variety of market-driven services including contract maintenance of equipment and the carriage of mail and express? Reform should see to it that managerial flexibility is written into a new VIA Rail Act.**

Progressive C Dissent

The Progressive Conservative Party of Canada believes in a strong revitalized rail service in Canada. It also believes that a service should be **maintained year-round from coast-to-coast-to-coast**. It also believes that passenger rail in Canada can and must be revitalized, as it is an essential piece of what makes Canada a great country. **Comment: We could not have said it better.**

NDP Comments

"What is at stake are questions of regional prosperity and equity, national identity and national unity."

This quotation by Daniel R. McGregor, (Carleton University) reflects the wisdom of Canada's founders, who recognized that linking all regions of the country was crucial to national integration. The trans-continental railway was Canada's first remote service. It was a crucial lifeline for the earliest western settlers who paved the way for those who would come after them and make the west what it is today.

The P.C. Party on Lynx.

The \$7.5 billion dollar government investment proposed by the Lynx group is 44 times greater than the current yearly investment the federal government makes to operate the entire passenger rail network in Canada, which includes a year-round service from coast-to-coast-to-coast.

Also, the question must be asked: What impact would this high-speed train have on VIA Rail? This question must be answered before any government money is contributed to a competing service.

It should be noted that this proposed high-speed rail system would only be 854 kilometres long, running between Quebec City and Toronto, and connect only two provinces.

Canada was built on our national rail system and it seems inappropriate to think that eight provinces are being left out to dry for the sake of two. In Atlantic Canada, only two provinces still have passenger service, and in the West service has steadily declined over the last number of years, which demonstrates that we must be vigilant to prevent any further erosion of our passenger rail system. **Comment: This view is shared in the Atlantic Provinces and the West. Also High Speed Trains are aimed at airline passengers and not car drivers. The intermediate communities will bear the brunt of impacts without any benefits.**

SkyTrain instead of LRT for Lougheed - Broadway ?

NDP Wanted LRT Others SkyTrain, But Suddenly The NDP Changed Its Mind. Why?

In B.C. the NDP government has up to now proclaimed that they would do things better than the Socreds did before them. So they promised that there would be a Light Rail Line on Broadway - Lougheed in Vancouver. Some in BC Transit who were responsible for the SkyTrain had always wanted another SkyTrain.

The Regional Government (GVRD) is going to take over responsibility for BC Transit. Particularly in Vancouver there is no enthusiasm for SkyTrain technology. In the region SkyTrain is accepted provided it does not impact the taxpayers.

Costs Escalate

The original LRT line was estimated at \$ 1.15 billion in 1994. Allowing for inflation that would be about \$ 1.3 billion in 1998. With some grade separations that would rise to \$ 1.5 billion. Cost sharing would be 60% province and 40% the region, based on the original estimate.

Going to SkyTrain technology the estimated cost becomes \$ 1.8 billion and climbing.

Project Team is Political

The project team is headed up by political appointees appointed by the Provincial Government. Proposals from consultants were requested for two sections of the line, the boundary is appropriately at Boundary Road. For each section two consultant groups were short-listed.

At that point in time two political appointees, Theresa Watts and Lecia Stewart, went to Europe to look at LRT systems. Who advised them is not known.

After their return there was silence until Premier Clark suddenly said, he was interested in Bombardier's SkyTrain.

He wants to see a factory in B.C. that would also supply the Asian market. (With wages very low in Asia, it is more likely there would be a plant in Asia to supply Vancouver).

SkyTrain would mean a proprietary system and the short-listed consultant groups would be sidelined.

What Happened?

There was already a trend for more grade separations along the proposed line. So what happens, the design is gradually changed from a light construction to a heavy construction, grade separating at intersections at the slightest excuse. You see, if you grade separate often enough, it may become logical to grade separate the whole line and then why not have another SkyTrain or ALRT?

Many projects that have been successful, have used the "peer review method" using experts with experience from other systems. Appoint a number of knowledgeable and experienced experts from out of town or province to review planning, design and operation as well as costs. The actual planners, designers or operators then have to justify their proposals to this peer review team. Their experience can avoid costly errors or misjudgements.

Because politicians often think they know it all, they tend not to involve knowledgeable independent reviewers.

SkyTrain instead of LRT (continued)

What are the Priorities?

In the lower mainland it is far too late to start attempting to solve traffic problems by building freeways or even wider and more roads. The solution is public transport, complemented with park-and-ride. This does not mean, that the car should be banned, but it does mean that public transport should have the first priority in the use of scarce space.

So far the Province and the GVRD have failed to set priorities in the use of space in the Broadway-Lougheed corridor. And that is the fundamental problem.

The planning priorities should be:

- 1 Transit
- 2 Access to Properties
- 3 Traffic, and within traffic maybe the order should be pedestrians, bicycles and then cars.

The failure to have these priorities can be seen in the Granville Fast Bus Project. The realization has to be that there is not enough space.

The problem with setting priorities is, that someone is going to disagree or gets impacted. Even if no politicians were involved, setting priorities becomes political. With political appointees such hard decisions are usually avoided like the plague. However the cost of not setting these planning priorities will be born by the taxpayer. Instead numerous studies without good guidelines are conducted, like what happened for Lions Gate.

What Happened in Europe?

Europe went through several phases in rail transit planning. In the sixties the philosophy was that everything had to be fully grade separated. Cities like Munich, Hamburg, Rotterdam, Amsterdam, Toronto and Montreal built metro systems.

By the seventies many cities had discovered that they could not afford metros, so they wanted a lighter construction. Generally the solution was to separate longitudinally in the outskirts and grade separate downtown. Examples are Frankfurt a.M., Stuttgart, Düsseldorf, Cologne and in Canada Edmonton.

In the eighties even the grade separation downtown became often too expensive and only longitudinal separation was used, except with railway lines. Examples are The Hague, Calgary, San Diego, San Jose, Portland and many others. The big exception was Vancouver which had to accept a proprietor system with unproven technology. The province imposed the system. The unproven technologies all worked except for the steerable axles of the cars. The system was controlled by UTDC (now Bombardier). At the time SkyTrain had lighter vehicles. Modern low floor Light Rail now also have low weight.

SkyTrain Claims and Reality Checks

by J. J. Bakker

Proponents of SkyTrain have been able to put out myths which should be challenged. Here are some of them:

♦ It can attract three times the ridership that LRT could.

For the same type of alignment ridership would be the same.

♦ So many grade separations have been requested for the LRT route that the construction cost differential between the two modes has narrowed.

With the lower weight of low floor Light Rail the cost of structures should be comparable.

♦ Tunnels for SkyTrain are 30% cheaper to construct because of the smaller cross-section required (long tunnels may be required under Broadway in Vancouver and to connect Burquitlam with Port Moody under Clarke St.).

The cross-section of an LRT can be made what the designer wants it to be. SkyTrain puts electrical equipment in the car, rather than under or on top of the car, the result is a loss of passenger space. To economize on cross-section may well be a false economy. The reason the SkyTrain car is small is the power of the linear motor which limits the size of the vehicle. A larger motor would create even more heat than the present motor and could create a fire hazard.

♦ The power supply of SkyTrain is third rail while LRT is an overhead wire. ***The LRT of Docklands, London, UK also uses third rail. Rotterdam uses third rail in tunnels and overhead wire in the suburbs.***

♦ SkyTrain has automation so that no driver is required.

The Dockland LRT also has automation and has no driver.

♦ SkyTrain cars may now be cheaper than LRT cars.

The comparison is with high floor cars of the eighties and not with modern low floor cars of the nineties. Only bids will show which is better.

It would help if the taxpayers could see some true comparisons. In the next issue we will compare equipment statistics.

SkyTrain instead of LRT (continued) Job Creation?

Politicians will fall for the bait of job creation. Manufacturers will hint that by not calling tenders, assembly will take place locally and jobs will be created.

However any call for tenders can include a statement as to whether local assembly and job creation will take place. Edmonton and Calgary assembled the German Siemens/Düwag cars locally, using future maintenance personnel, which provided excellent training.

Bombardier which owns the SkyTrain technology also makes Light Rail Vehicles in Europe, so with either technology they can create local employment. Of course with LRT, there would be competing bids and a greater assurance of lower prices and at least an appearance of an above board procedure.

It should be kept in mind that compared to a surface line, an elevated line costs about six times as much and an underground line about twelve times as much. And since money is in limited supply, an elevated line would deny LRT service to five times its length elsewhere, while a tunnel would deny that service elsewhere to 11 times its length. In an area with a regional government and many regional demands, excessive design should not be tolerated.

The first step though is to determine which grade separations are really needed. Prospective bidders would then all be able to work from common requirements

The big advantage of LRT is its flexibility. Also there are a number of manufacturers which can give competitive bids and train design options. The really big advantage is that designers are not tied to the most costly solution. One answer that would put all arguments to rest is to invite the main manufacturers (Bombardier, Siemens and ADtranz) to prepare a full design, build and maintain proposal. Bombardier can put in two proposals, one for SkyTrain and one for LRT.

The Region should insist on hearings and challenge the Provincial Government as to why they should pay for a more costly system. The Province should reconsider its hasty decision.

VIA Dome Cars visit Banff

Between Sunday April 19 and Monday April 27, 1998, VIA Rail passenger cars returned to Banff. Since 1990 no VIA passenger trains had operated through Banff. The service is part of a 50th anniversary promotion for one of Japan's leading tour operators, Hankyu Express International and was arranged by Canadian Pacific, which in turn chartered VIA equipment and on board personnel. The engine and engineers belonged to Canadian Pacific.

Hankyu Express International specifically wanted VIA's dome cars which are closely identified by the Japanese with Canadian mountain travel.

Each day the train originated in Banff with up to 120 passengers and made the 145-kilometre journey to Golden in three to four hours. In Golden the train was met by a second group who travelled there by bus. The two groups will then switch places for the return trip to Banff.

[Source: The Calgary Herald]

Lynx High Speed Train Proposal for Quebec to Toronto

The Lynx team consists of:

- SNC-Lavalin of Montreal, Quebec
- AGRA Monenco of Oakville, Ontario

These two firms would be responsible for Civil Works, Project and Construction management and guideway infrastructure.

- Axor of Montreal, Quebec
- Ellis-Don of London, Ontario

These two firms would be responsible for bridges, buildings and structures.

The cost of all infrastructure would be \$ 7.5 billion which would have to come from governments.

- Bombardier of Montreal, Quebec
- GEC Alsthom Canada of Montreal, QB.

These two firms would be responsible for rolling stock, power supply, signalling and communications and system integration. **Cost \$ 3.6 billion to be financed by private enterprise.**

The proposal is that the Lynx team and Governments (Federal, Quebec, Ontario) share equally in financing \$ 102 million in the next planning phase.

The aim would be to start construction in 2001 with completion of Ottawa - Toronto in 2006, and Ottawa - Montreal, as well as Montreal - Quebec in 2007.

The projection is 11 million riders annually rising to 15.9 million by 2025.

Comment: The proposal is aimed at airline passengers. Trains would operate non-stop between cities. No mention is made in the proposal of how VIA services would either be integrated or how they would be affected by this proposal.

The Transport Committee recommends approval of the next phase (see Page 5). The P.C. Party is against the proposal (see page 10).

It is a slippery path. Transport 2000 Quebec is in favour, Transport 2000 Canada issued a statement of interest, but not support.

It can be expected that after implementation of High Speed Trains, the rest of Passenger Rail will disappear.



Sign at 100 Street and Jasper Avenue to help the blind in Edmonton.

Twenty Years LRT in Edmonton 2.

by J. J. Bakker

As described in Part 1, see our previous issue, in 1975 the LRT Project got really under way. So we all thought. As happens so often when a major project gets money, it attracted all kind of people who came with schemes that Edmonton should adopt. The first philosophy that the Project Team adopted was that it was to deal with proven technology that could be implemented by 1978, when the Commonwealth Games were to be held.

UTDC comes to Town

In Ontario the Davies PC Government created the Ontario Transit Development Corporation. It needed more money and during a provincial premiers meeting they tried to talk Premier Lougheed of Alberta into investing surplus oil revenues into OTDC, which was renamed Urban Transit Development Corp. to make it more palatable for the west.

In came a team of sales people with films, slides and talk shows to proclaim the merits of magnetic levitation, linear motors, new technologies and Ontario expertise. UTDC had an agreement with the German firm Krauss-Mafai to develop jointly magnetic levitation. (In 1976 the scheme collapsed because the German government withdrew research funds).

UTDC first went to see the Provincial Government officials. They targeted the Department of Transportation, who had been left out of the Transit Financing scheme as proposed by the Government.

It was a wonderful triumph of gall and propaganda over substance, since there was no product.

Eventually this project led to Vancouver's SkyTrain with a linear motor. The problem was that a linear motor requires a small gap (4 mm) between windings and reactor rail to be efficient. Magnetic levitation was to provide this small gap. When UTDC went later to wheels and rail, the gap had to be increased to allow for rail and wheel wear. More power was needed which translated into heat, causing a prototype to burn up on the test track. The windings on a SkyTrain motor are very heavily insulated to prevent overheating.

However the Project Team, under Don MacDonald analysed the UTDC proposal and rejected it as being an unproven idea. They were proven right.

UTDC was not the only one trying to cash in. The City Commissioners insisted that the old Cromdale Shops had to be purchased from the city. These shops were going to be the maintenance depot of the LRT, since they were located next to the CN tracks. The City Commissioners also introduced administration levies, so that the General Administration could tap into LRT funding.

Advantages of Pre-Financing

The Provincial Government made the capital transit money available at the start of the financial year. This allowed several innovative cost savings.

Edmonton bought ahead the necessary rail and prestressed concrete girders needed for the underground downtown LRT stations (Churchill and Central). These purchases beat inflation.

Contract Philosophy

The Project team early on adopted a very sensible approach to contracting.

- Designs were prepared utilizing proven techniques and methods known to local contractors.

- All projects were made of a size that could be handled by local contractors.

- The size of a contract was such that it could be completed in one year and was about \$ 1.5 to \$ 4 million each. Even though there was a high inflation at the time, completion within a year allowed for fixed prices. In turn the fixed prices encouraged a fast pace of construction - inflation creating a bonus or penalty to the contractor.

- Alternate designs prepared by contractors were encouraged and contractors could bid on their own alternate design as well.

- Progress payments (remember the money was in the bank) were made promptly. Usually the last Friday of the month the construction engineer and contractor determined the percentage completed of each phase, the contractor prepared his invoice and on Monday it was paid. The theory was that in a time of inflation one should minimize the money that a contractor has to borrow at very high interest rates. The benefit of this policy showed up in subsequent bids, which were lower than expected.

- The Project Management Team was kept small, the maximum staff was 11 persons including secretaries. The staff's function was primarily to ensure efficient coordination with other contracts, to minimize delays or obstructions to contractors in the performance of their jobs. In the management of the project there was an efficient and close liaison between owners, contractors and consultants.

Personally I well remember the weekly lunches at the Chateau Lacombe (clam chowder) with the Project Manager Don MacDonald, Rudi Yacyshyn, the construction engineer, Walter Mitchell the financial manager and Lew Lawrence who provided the liaison with operations. It provided an excellent opportunity to discuss progress, problems and solutions.

Twenty Years LRT in Edmonton 2. (continued)

The Principal Features

The initial Light Rail Transit line consisted of 1.6 km tunnel in the Central Business District with two underground stations and 5.6 km of surface line.

The Surface Line.

Railway history provided Edmonton with a wide railway right-of-way towards the North-East, cutting diagonally across the North-South and East-West grid road-way pattern. The original right-of-ways of the Canadian Northern and Grand Trunk Pacific were side by side, leaving a space for two tracks and a platform between them. This space was rented from the Canadian National, at that time a crown corporation formed from the amalgamation of the two railways.

The area that is served by the North-East line includes several special major destinations - Clarke Stadium, the Coliseum and the Exhibition Grounds. In addition there was a rapidly increasing residential development in the area. Stations were located at crossings of major arterial streets, allowing easy integration with the surface bus system. Crossings were at grade except at 118th Avenue (Coliseum) and with the CN east-west tracks. Train and traffic control will be discussed in Part 3 of this series. There was one crossing at grade with the CN track at the Cromdale Shops. The entry into the shops was only suitable for equipment with LRT standards, using a track radius of 26 m.

The Subway Portion

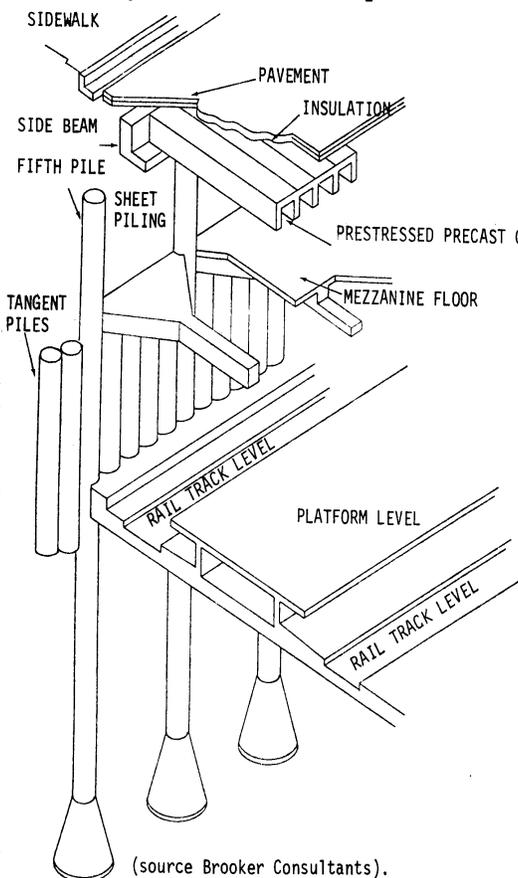
There were three parts to the subway portion. The first part was the portal from 95th Street to 97th Street which was a cut and cover operation. The second component were the two underground stations and the third the twin tunnels between the two underground stations.

One problem was that when construction was started, the specifications of the car were not yet known. So the underground portion was made for the largest car then on the market, the Toronto car (Car width 3.05 m). The curve radius was 160 m.

Just before surfacing a third station shell was built in. This station shell has never been developed. Immediately north of Churchill Station a wye-stub has been built in the cut and cover section for a possible extension to the North or North-West.

The Underground Stations

Central Station is located on the busiest East-West Avenue (Jasper Avenue) at the intersection of the busiest North-South Street (101 Street). The year prior to station construction the sewer and water utilities were placed under the sidewalk in two separate tunnels, oval shaped (1.8 m X 1.2 m). Often one of the costliest items in going underground is utility relocation. **Vancouver please note!**



Construction of Subway Stations

The construction method had allowed traffic to be restored in four months. The method was cover and then cut. The size of the station was 18.6 m wide, 213 m long and 15.2 m deep. Track level had to be below the utility level.

Holes for tangent piles of 1.1 m diameter were bored down through the soil. Reinforcement inserted and concrete poured. Every fifth pile came to the surface, while the four intermediate piles were stopped at the mezzanine floor level.

A longitudinal excavation was then made along the line of piles and formwork placed for a reinforced grade beam. This beam was poured in place. The dimensions of this L-shaped beam were 1.55 m wide and 2.10 m deep. Interlocking steel sheet piling was then driven on the property side of the grade beam.

The street surface was then excavated, as deep as time permitted, but not deeper than the mezzanine floor level.

Precast prestressed standard concrete highway bridge girders were then placed. Each girder weighed 40 tons and was 1.5 m wide and 1.8 m deep, spanning the 18.6 m distance between the grade beams. The beams were then grouted together, and a water proofing membrane applied. This was overlaid with 5 cm styrofoam insulation. A light-weight aggregate concrete surface was then poured to the prescribed contour of the street surface. A final 13 cm reinforced concrete pavement was then poured.

After the pavement had been restored the remainder of the soil was taken out. Excavation was first to the mezzanine floor and strut beams were poured on the excavated ground using sand as a trim. The mezzanine floor was then poured over these beams. The excavation was then completed down to track level. During this process the integrity of the adjacent building foundations was protected by means of a temporary moveable steel strut system to prevent the bottom of the tangent piles kicking in.

The twin tunnels between Churchill and Central stations were mined by means of a mechanical mole, manufactured by Lovatt of Toronto. The contractor for this portion was the City's own sewer department. Some underpinning was required of some buildings. One building was the CIBC Bank and maybe the City missed a special financing opportunity.

One building (now the Westin Hotel) was approved for construction when LRT was still being planned. The foundation piles could be located so that the two tunnels could be mined without interference.

Prior to construction all adjacent buildings were photographed and inspected (together with the owners). No wall cracking or other damage to buildings occurred.

During the construction process steel link fencing was used to protect the public, while maintaining high visibility of the work in progress. This feature of downtown life was used by the merchants along the streets to their advantage in promoting business during the four month closure of Jasper Avenue. In fact many merchants enjoyed better than normal business during this period.

It should be noted that Edmonton is blessed with excellent soil conditions.

There was also excellent cooperation between the Civil Engineering Department of the University and the City. A number of theses resulted in soil mechanics and structures.

Via says it learned from fatal crash

Via Rail announced on March 19, 1998, that it has learned some serious lessons from last September's fatal train crash in Saskatchewan. The passenger rail company says it will demand better training from its on-board crews and maintenance staff and it will tighten safety procedures.

Via Rail says it still isn't sure why the train derailed, killing a woman and injuring 66 others. The Canadian Transportation Safety Board is reviewing the crash.

Independent consultants have come up with 27 recommendations. They include allowing employees to report safety violations anonymously and hiring safety inspectors based on their competence, not their seniority.

German ICE train wreck

On June 3, 1998 a German ICE train flipped off the tracks in northern Germany, killing 100 people and seriously injuring 200 others.

The train was travelling at 200 kilometres an hour on its way to Hamburg from Munich. Evidence has suggested that a wheel might have broken due to material fatigue and could have caused the carriage directly behind the locomotive to derail when passing under a bridge.

The locomotive uncoupled from the train. The first three passenger cars derailed but also passed under the bridge with little damage. The carnage only started with the fourth passenger car, which then hurtled into a road bridge as the cars behind jack-knifed into one another. The bridge collapsed on several cars, crushing the passengers inside.

The German railways withdrew all 60 of the series 1 ICE trains for wheel inspection. The result was chaos since replacement trains go slower and the result is that many trains ran three or more hours late.

The ICE is Germany's fastest train, transporting 65,000 passengers daily.

Comment by Editor: *The ICE has individual cars with couplers. The TGV has articulated cars using a common truck. When during trials the embankment north of Paris collapsed, a test TGV derailed, but remained upright and did not jackknife.*

The Lynx proposal for the Quebec - Toronto corridor and for the Northeast corridor in the U.S.A. use coupled cars and not articulated train sets. The National Association of Railroad Passengers point out in their hotline #37, that North American designs use 800,000 pounds of pressure from the ends (buff strength) but European trains only take 460,000 pounds. The American Flyers are designed for 800,000 pounds at the vestibules and 1.2 million pounds at the inner shell. It can also hold the weight of another car on top.

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Letter to Ralph Klein

March 9, 1998

Dear Mr. Premier,

Please find attached our Western Newsletter, with an article about 20 years LRT in Edmonton. As you know the Alberta Provincial Government instituted in 1975 an innovative program of financing capital transit projects for both Calgary and Edmonton. Edmonton used the initial grant for LRT, the first new system on the North-American continent. Calgary built a bus garage and purchased some LRT equipment. As mayor of Calgary you expanded the LRT system into the network as it now exists.

At present Alberta gets criticized for excessive emissions into the atmosphere, but does not get credit for such innovative programs as promoting electric pollution free LRT.

I would suggest that as part of infrastructure programs, LRT once again be considered by the province as an investment. Calgary needs extensions south of Anderson and downtown west to the bus station. Edmonton needs to go from the University to Southgate. Both investments would reduce operating costs. And I believe it is the philosophy of your government that investments should reduce rather than increase operating costs.

Once again I would urge your government to invest in LRT in both major cities. You should then also use the occasion to show that Alberta cares about the environment and wants to see less pollution.

Yours sincerely, J. J. Bakker,
 Vice-President and Past-President
 Transport 2000 Canada [Alberta Branch].

Reply from the Premier

THE PREMIER OF ALBERTA

April 21, 1998

Dear Mr. Bakker:

Thank you for your letter of March 9, 1998 and the very interesting article on the history of LRT development in Edmonton.

I do remember the development of LRT in Calgary when I was the Mayor of Calgary, and I appreciate your past involvement and continued advocacy of public transit in Alberta.

The Task Force on Infrastructure will examine avenues of support for infrastructure development in Alberta. However, each municipality will continue to be responsible for determining budget allocation and priorities on services within its own jurisdiction. I understand that Calgary has developed its GoPlan and Edmonton is developing its Master Transportation Plan. These plans will form the blueprints for future investment in transportation in the two cities.

Thank you again for sharing your thoughts with me. I would suggest that you continue to express your views to the officials of the two cities concerning future LRT development.

Sincerely yours,
 (Signed) Ralph Klein

cc: Honourable Waiter Paszkowski
 Minister of Transportation and Utilities

How About The Cities?

Copies of this correspondence were sent to the mayors of Calgary and Edmonton. No reaction has been received from either city.

The question is: "Did they ask?"



Transport 2000 West Canada Newsletter

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Our Mission: *Transport 2000 Canada represents the interests of public transportation by promoting socially, environmentally and economically sustainable policies, programs, services and actions.*

Editorial by J. J. Bakker

For the first time we had colour in our last issue. We had many favourable responses. We also had queries how it was produced. Well the printing for 8 pages was done normally with Mailboxes in Salmon Arm. The first two pages were printed at home. It required special paper which of course was more expensive and the actual printing was done one sheet at a time on an Epson 500 Stylus Colour printer. All 310 copies, each page taking 2 plus minutes. In the process three cartridges were used. The net result was that the cost of production doubled. Our costs usually break down in about 48 cents postage and 54 cents printing. Well the printing this time was over \$ 1.00 and that is for materials only. So we are back to black and white and sometimes shades of grey.

I would welcome feedback about content, layout or anything else regarding this newsletter.

This issue deals primarily with urban issues. Edmonton produced a transportation plan which is all roads. The British Columbia Government decided unilaterally that Skytrain technology should be used, forcing grade separation of the entire line. Personally I expect the first link will be built, after which there is an election. Then more studies and no progress for another 15 years or so. Greater Vancouver, which shares 40% of construction, had no say in the matter.

Yet the government has been successful in selling the concept that SkyTrain means an elevated grade separated structure. Nobody knows LRT technology can do that as well. Public opinion polls support SkyTrain. However if the question had been, do you support the use of a linear motor, the result would probably be: Yes 1%, No 1%, Do not know 98%.

A saving of \$ 300 million because the existing depot can be used is a valid argument. However it means that for track and vehicles LRT would have been \$ 800 million (\$ 1.1 billion minus \$ 300 million), compared to an estimated cost of between \$ 2 and \$2.5 billion for SkyTrain. Quite a price difference to pay for no flexibility in design. And yet with all that extra money being committed, we have an economic crisis in the province. Does not anybody believe in reality checks?



The Low Floor Modular Technology of Light Rail Vehicles is Examined in this Issue. These vehicles are lighter than a SkyTrain.

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This issue went to the printer on September 2, 1998 and was mailed on September 8, 1998. Next issue deadline is November 15, 1998.

SkyTrain versus Modern Light Rail

An Analysis of Vehicles.

The Real Difference

As explained in our last issue, the SkyTrain is different because it uses a linear motor rather than a rotary motor. The automatic train control can be used by any system, provided there is grade separation. SkyTrain because of the electrical pick-up has to be grade separated.

Weight and Structure

The size of an elevated structure will depend on the weight of the vehicle (when loaded) and the span it has to bridge. In the original SkyTrain planning attempts were made to make the structure adequate to change to Light Rail technology if necessary. But because the SkyTrain vehicle was lighter, the design was made specific for the SkyTrain. The SkyTrain vehicle uses a lot of aluminium.

As described elsewhere the vehicle has performed well. The same can be said for the Light Rail Vehicles (LRV) that are used in Edmonton(S), Calgary(S), San Diego (S), Sacramento (S), San Jose (UTDC now B), Portland (B) and other cities. S stands for Siemens/Duewag and B for Bombardier.

Manufacturers of LRV.

The western suppliers of low floor Light Rail Vehicles are: Siemens, Adtranz, GEC Alstom and Bombardier. All four have a presence in Canada. All manufacturers are trying to establish "standard" modular models. See the table on this page and figures on next page. Siemens developed the Combino, Adtranz the Incentro and GEC Alstom the Citadus. Bombardier produces a number of models through its subsidiaries Vevey, BN and DWA.

The weight of Light Rail Vehicles has come down, particularly the modern low floor models. So the weight per square metre (actually the mass/sq.m.) is critical for structure design but also relates to the cost of the vehicle.

SkyTrain proponents are keen to point to the US\$ 2.5 million per car for the Siemens Low Floor car of Portland. This car had to be strengthened to provide increased buffing strength, because it has to run together with the older high floor Bombardier cars.

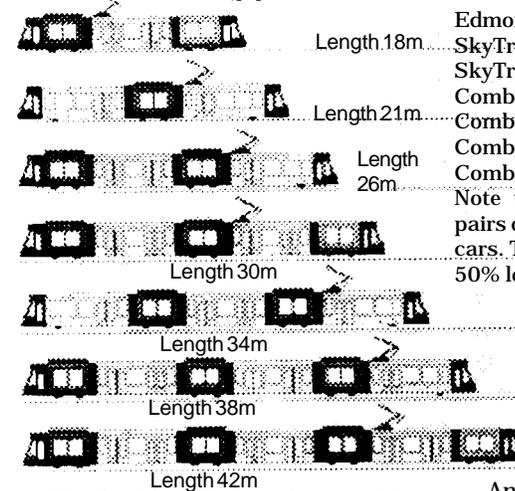
Comparison of Light Rail Vehicles

Car Type	Car weight kg/sq.m	Width m	Length m	Seats	Standees 4/sq.m.	Total
Combino (Siemens)	450	2.3*	varies upon number of modules used			
Incentro (Adtranz)	400	2.3*	varies upon number of modules used			
Citadus (GEC Alstom)		500	2.3*	varies upon number of modules used		
Urbos (Vevey/Bombardier)	400	2.3*	varies upon number of modules used			
SkyTrain I	485	2.4	12.7	40	35	75
SkyTrain II	specifications are not yet available					
Edmonton	475	2.65	24.3	64	86	150
Portland (high floor)	576	2.65	26.8	76	90	166
Portland (low floor)	660	2.65	27.7	72	94	166

The Combino is in operation, Incentro, Citadus, Urbos and SkyTrain II are in the design or production stage. * also available in 2.65 m

A new system, as was proposed for Vancouver, would not be restrained by similar buffing requirements, since no heavier vehicles would run on the same line, unless government regulations would interfere.

Modular Approach



The Combino allows various modules being used to get different lengths. The black coloured units are power units or end units (partial black).

The expense of the cars is in the weight and in the number of cabs required. A system can have different lengths of modular units and thereby reduce the number of cabs required. The less couplings, the more secure it is for passengers.

Equivalent Lengths

The peak hour service in Calgary and Edmonton uses 3-car trains, or a length of 73 m. In Calgary that just fits into the smallest block downtown. Here are some other equivalent lengths:

	1-car	2-car	3-car
Edmonton	24.3	48.6	72.9
SkyTrain Mark I	25.4	50.8	76.2
SkyTrain Mark II	38.0	76.0	
Combino 26m	26.0	52.0	78.0
Combino 38m	38.0	76.0	
Combino 48m	48.0	96.0	
Combino 26/48		74.0	

Note that the SkyTrain uses married pairs of cars, so the minimum length is 2 cars. The Mark II cars are assumed to be 50% longer. They are expected to have a passage between cars to improve passenger circulation. Also it is expected that the Mark II cars will devote less space to equipment cabinets than the Mark I cars.

Operator Flexibility

An operator likes maximum flexibility. It was suggested to Edmonton that they could increase capacity by adding a middle section, so that two double articulated units could replace three single articulated units. Operations was horrified with the idea. But it would have reduced the number of cabs and would be the lowest cost method of adding capacity. Yet most European systems have gone from single articulation to double articulation. Electrical companies do not like this method, but car builders do.

SkyTrain Cars Perform

A recent strip down of the first car to reach mid-life (15 years) has shown no need for any significant mid-life rebuild. A tribute to the very well built aluminium frame and body and good maintenance. There is some minor delamination of the honeycomb flooring which is difficult to fix. All new cars will revert to the traditional ply-metal flooring.

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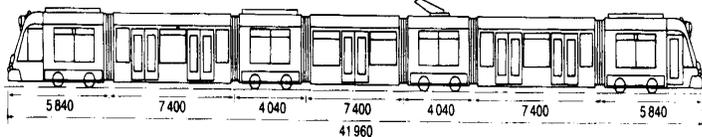
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TRANSPORT 2000 CANADA is a national federation of consumers devoted to advancing the public interest in transportation of all modes. A registered charity, it is involved with research, public education and advocacy of public transport issues. It publishes a newsletter "Transport Action".

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An Analysis of Vehicles (continued).

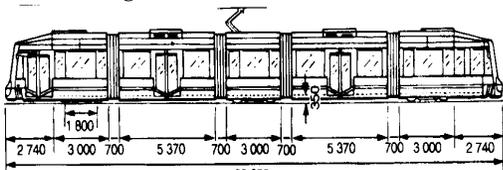


Combino
26 m.→



Siemens Combino Light Rail Vehicle, length and width can be varied.

It should be noted that the Combino unit shown has larger wheels. Small wheels have given trouble in a number of systems such as SkyTrain in Vancouver, but also the Eurotram in Strasbourg. However some of the modules shown on page 2, do have small wheels. The car shown in the drawing was ordered by the city of Freiburg in Germany. Dusseldorf has a similar unit but with different end modules, which have small wheels. Siemens has supplied or has options for about 40% of the total low floor market of light rail vehicles, exclusive of Diesel Light Rail.



Adtranz's Variotram, as supplied to Sydney (note left hand operation)..

Adtranz says that the new INCENTRO product platform incorporates the strengths and flexibility of successful existing Adtranz products such as the GTX, Eurotram and Variotram, and is thus based on proven design solutions in widespread use on hundreds of vehicles in cities all over the world, from Japan, Germany, Italy, France and Portugal to Sweden, Switzerland,

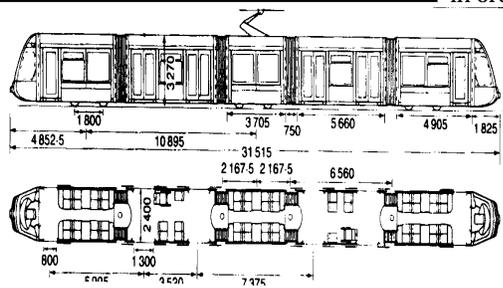


Sydney's Variotram

Sources for this article were the internet (Siemens, Adtranz), Metro Report a Railway Gazette Yearbook and own files.

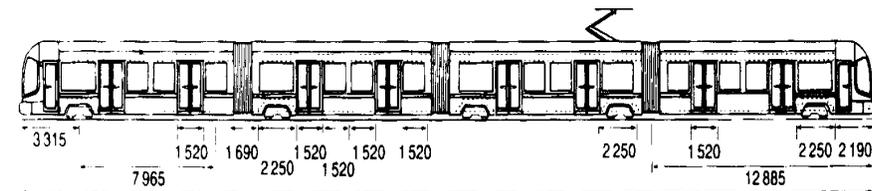
Finland and Australia. The Eurotram is used in Strasbourg. There is no picture of the layout for the Incentro units available on the web. The Incentro has not yet been ordered by anyone, nor is there a prototype.

The Variotram is part of the same family. Adtranz has about 26% of the market in orders and options.



The Citadus as made by GEC-Alsthom, being supplied to Lyons, France.

GEC-Alsthom have been in the Light Rail Vehicle business for some time. Their best known unit is in Grenoble with a similar version now operating in Paris and other places. The Citadus is different in that it is 100% low floor. It does have small wheels though. The unit could be lengthened by about 10 m by adding sections. GEC-Alsthom has about 19% of the low floor light rail vehicle market. The low market share is primarily due to the fact that France abandoned all tramway systems and only has re-entered the field of Light Rail in the last 15 years or so. There was no conversion market from tram to light rail, like in Germany, Switzerland, Belgium or Holland.



The Urbos, made by Vevey a subsidiary of Bombardier

Bombardier has been acquiring several companies in Europe in the last few years. It now owns Vevey, BN and DWA all of which make low floor light rail vehicles. It has captured about 5% of the market so far.

The Urbos could be shortened by one section or 12 m.

Bombardier also bought Talbot, which makes Low Floor Diesel Light Rail vehicles. Talbot supplied the Dutch railways with equipment for many years.

The Market for Low Floor Light Rail Vehicles versus SkyTrain

The market for Light Rail Vehicles is far greater than the market for SkyTrain, both worldwide and on this continent. because it has to be grade separated, has a very limited market beyond the present system proposed for the Vancouver region. Siemens realized this early on by building a plant in Sacramento, California. The value of the low-floor light rail vehicles is that it can be applied on streets in mixed traffic (not recommended), on streets unlikely that this plant can compete with a light rail plant say physically separated from traffic alongside and time separated in Canada or Mexico. with signals from crossing traffic, on structures or tunnels grade separated from any other traffic. The design application of the same equipment will depend on the circumstances. Bombardier, Vancouver area to make SkyTrain equipment. SkyTrain, GEC-Alsthom, Adtranz or Siemens have missed an opportunity.

It is puzzling therefore (other than provincial subsidies) that Bombardier is interested in starting a plant in the same equipment will depend on the circumstances. Bombardier, Vancouver area to make SkyTrain equipment. SkyTrain, GEC-Alsthom, Adtranz or Siemens have missed an opportunity.

BC Government Decides, Without Consultation, to Use SkyTrain

Contract with Bombardier

Just after our last issue came out, the BC Government decided and then signed a contract with Bombardier to use SkyTrain technology. Of course Glen Clark, who used to advocate light rail technology, now has the same advisor as the Socreds had.

LRT was 33.5 km and \$ 1.1 billion

The original plan was to have an LRT surface line from Broadway and Granville to Lougheed Mall and then with two branches, one to New Westminster and the other to Coquitlam. The cost was estimated at \$ 1.1 billion in 1994.

The government claims that costs had increased to \$ 1.5 billion because more grade separations were wanted by various municipalities. This claim was made before detailed design and operating plans had been made. The proposed engineering design studies were cancelled.

SkyTrain also \$ 1.1 billion, BUT...

In order to disguise the huge increase in costs, some estimates suggest \$ 2.5 billion, the government proposes to use SkyTrain technology (linear motor and full grade separation) but for a much shorter line.

Links Eliminated

Two links have been eliminated from the plans, although the phrase used is "moved to a second stage".

The first link removed is from Granville/Broadway to Broadway Station (Broadway/Commercial Drive). The design here may have to become a tunnel if SkyTrain technology is used and would greatly escalate costs. Usually tunnel is about twelve times as expensive as a surface operation, higher if there is a lot of utility relocation. To hide this huge cost increase, the link was conveniently moved into the future without a financial plan.

The second link removed is from Lougheed Mall to Coquitlam. Coquitlam promptly wanted to stop all development on government land because of the lack of transportation.

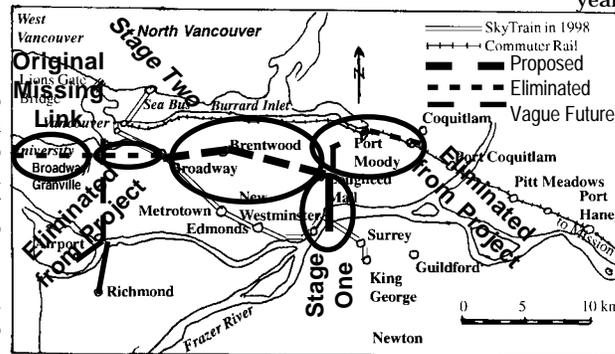
Stage One

The real Stage One will be from New Westminster to Lougheed Mall. The premier wants to see this 6.5 km link fast tracked, to be completed by 2000. Now this is not a millennium bug, but probably an election year. What will happen after that is anybody's guess. The Liberal opposition does not give its alternatives.

Stage Two

A 14.5 km line along Broadway between Lougheed Mall and Broadway and Commercial Drive is Stage Two. It is supposed to be finished by the year 2001.

The total cost for Stages One and Two is estimated at \$ 1.166 billion.



What is listed as "eliminated" is officially Stage Two, but it has no funding. The "Vague Future" line to the Airport and Richmond is a political promise

Eliminated Links by 2003?

When announcing the decision, the eliminated links would be completed by 2003. However no financial details or financial plans were given. Including these links the cost is expected to be \$ 2.5 billion and the real costs could well be a lot higher. The GVRD only agreed to share 40% of \$ 1.1 billion, and there is no more money available.

SkyTrain Maintenance and Service Facility (MSF)

As part of its decision to continue with SkyTrain and not LRT, the government has cited a saving of \$ 300 million because no new maintenance facility would be required. Here is some information gathered about the existing maintenance facility and how it is used.

The SkyTrain yard was designed for expansion to an ultimate capacity of 300 Mark I cars, or the existing 150 Mark I, plus 100 Mark II cars, with 12 automated storage lanes. Initial construction included 5 lanes, to accommodate the original 114 cars. 28 4-car trains [112 cars] can be stored on these lanes. Over the years the system has acquired an additional 36 cars (total fleet now 150), with no increase in tracks.

There is always a number of cars in the manual shop area at night, and trains are also shuffled around other available track areas. 3 or 4 4-car trains are also often stored overnight in the King George station area to alleviate yard congestion during the movement for cleaning, inspection and maintenance. These trains are ready to go into service for the first trips (weekdays starting 05:08 from King George).

With plans to expand the fleet to accommodate load growth, as well as for the recently announced extensions would

And On To Richmond

When announcing the SkyTrain decision, there was another surprise. The minister responsible for BC Transit Joy MacPhail says that the province wants to accelerate the construction of rapid transit to Richmond and the airport by ten years and complete that line by 2005. It would become part of the bid to attract the 2010 Winter Olympics to the Lower Mainland.

The announcement again was without a financial plan or funds. Some suspect electioneering.

Does Transport 2000 Want Better Transit?

From the sceptical tone of this article, our members may wonder whether we are still in favour of better transit. Well the answer is: yes, we certainly are. However we are also aware of an economic crisis worldwide and in B.C. So we

would like to see better transit and particularly rail transit, but not at any cost. We should make every effort to get the maximum value for every dollar spent.

The figures and statements made around the decision to construct a grade separated SkyTrain rather than Light Rail with flexibility in design are just not creditable.

Now what do the Liberals think....? Anything?

involve additional storage tracks and expanding the shop over the already built floor (apron).

In addition 3 hectares of additional land remain adjacent to the site on the south end. (all bought for \$1!) This land does now allow run-through storage but could accommodate stub-track storage, or other ancillary buildings. It is presently used for maintenance-of-way storage -- rails etc., that could be moved off site.

With some off-site car storage (planned for the ends of lines) the MSF should be able to maintain 300 to 400 mixed fleet cars, essentially the limit of the two cleaning tracks, one automated exterior wash track and the in-floor wheel lathe. This involves increasing the maintenance shifts. At the moment most maintenance is night shift, as 144 of 150 cars are operated in each rush hour. Although the cars are exceptionally reliable and low maintenance, more shifts will require more spare cars. Painting and heavy rebuilds were always planned to be contracted out.

The MSF should be able to handle all easterly SkyTrain service for the long term future. The Richmond line could be served initially but would ultimately have to have a new depot.

Twenty Years LRT in Edmonton 3.

by J. J. Bakker

How Edmonton Finished up with Siemens/ Duewag Cars.

Vehicle Availability

In 1969 the author was in Europe and explored on behalf of the city vehicle production. The exploration was instructive. In the Nether lands I visited Werkspoor and their subsidiary Beynes. Werkspoor had just completed a large order of equipment for the Dutch Railways and Beynes was supplying Amsterdam with articulated cars. Both advised me that they were going to stop rail equipment manufacturing, because the post war re-equipping of the railways and the cities had come to an end. Both Werkspoor and Beynes did give me a nice lunch at a nice restaurant.

My next stop was going to be SIG in Switzerland, but there was some agreement among Swiss manufacturers that equipment for Canada would come from Schindler. Schindler was pleased to see me but were not interested. The Swiss Railways (their equipment survived the war) had decided to replace their equipment and the Swiss order books were full for years to come. They were prepared to design a vehicle for manufacture in Canada. (Edmonton's requirements were not big enough for that). Again I was offered a nice lunch at an even nicer restaurant near Basle.

The third visit was to Duewag in Dusseldorf. In Germany the order sheet for cities had also come to an end and Duewag was hungry for new business. They told me that their philosophy was that no order was too small and that they used standard components rather than standard vehicles. I was given a snack in the canteen after viewing the plant.

Vehicle Order

The specifications for Light Rail Vehicles (LRVs) were very brief. It requested a proven vehicle that could operate under Edmonton weather conditions (+40C to -40 C) and sufficient equipment to move 128 seated passengers every 5 minutes. The request was sent out to most known manufacturers of Light Rail equipment, including Boeing Vertrol which was then producing the so-called standard Light Rail Car for the USA in Philadelphia for Boston and San Francisco.

There were two bids. One was from ASEA (now AdTranz) offering a PCC based on the vehicle made for Gothenburg, Sweden. The other one was from Siemens Canada, together with Duewag from Dusseldorf, Germany. The Duewag vehicle was the U2 car, modified with extra insulation, as used in Frankfurt a. Main. To our surprise there was no bid from Boeing.



Edmonton's Light Rail Vehicle

An extensive analysis was conducted. The requirement worked out to 21 cars from ASEA or 14 cars from Duewag. Based on the cost per square metre, the Duewag vehicle was recommended.

And Then Came UTDC

All of a sudden there was a visit from UTDC in Ontario. They lobbied the provincial government first and then the city. Should not Edmonton buy Canadian and they had just the vehicle that Edmonton needed. Nice drawings were produced showing a new articulated car.

It turned out that UTDC had acquired the Canadian rights for the Boeing car, but then wanted to develop their own car.

So the situation was that the request was for a proven car, UTDC came with a paper design of an articulated car and UTDC came after the bidding had closed and the competitive prices were known. A single unit version (similar to the PCC) was proposed for Toronto.

The city refused to entertain the proposal and the province did not want to accept the risk of not having unproven equipment delivered late. The deadline after all was the Commonwealth games.

The UTDC vehicle was produced for Toronto and came, after a lot of teething troubles, in operation in 1981. That was **three years** after the Commonwealth games! Prototypes of a single unit car (not articulated) were made in Switzerland by SIG, and the rest of the production was done in Thunder Bay. Much later the articulated version was made for San Jose, California and later still even Toronto invested in articulated cars.



Light Rail Vehicle as proposed by UTDC for Edmonton. These vehicles started operating in Toronto in 1981.

Local Assembly

Revenue Canada levies import duties on equipment from abroad. To avoid or reduce these duties, the equipment must have more than 50% Canadian content. Duewag in Dusseldorf under contract to Siemens Canada produced the shells of the vehicles as well as the trucks. Siemens Canada provided the motors and the assembly and finishing of the vehicles was done in Edmonton at the Cromdale yards. Siemens hired all the electrical technicians that would maintain the vehicles and they were put to work to assemble each unit. This, of course, provided excellent training as well as helping in Canadian content.

Apex Upholstery got the contract for the seats and carpet floor coverings of the vehicles. This contract raised some eyebrows since Apex Upholstery was owned by former alderman Cec Purves, who in 1974 had opposed the LRT project. He ran for mayor in October 1974 but lost. In 1977 he again ran for mayor and got elected and was a firm supporter of LRT ever since.

Customs Duties

The debate over customs duties lasted several years. In the end because UTDC wanted to import the three prototype vehicles from SIG in Switzerland duty free, Edmonton got concessions on import duties. Let it not be said that UTDC proved to be useful after all.

Performance

The Siemens-Duewag cars were delivered on schedule. The vehicles were tested and performed but did need the usual minor adjustments.

The week before the official opening, the test trains were available to be used by the public free of charge between 10 am and 3 pm. It is amazing how many businessmen had the time to participate in this testing.

For a 5 minute service, the system needed 12 of the 14 cars. In the evening peak the cars were fully loaded and in fact passengers started to travel back from Churchill to Central so they would have a seat on the next train. In fact it showed after opening that three-car trains were needed. It took however quite some time before the city commissioners would agree to recommend further purchases of Light Rail Vehicles. This in turn stymied growth of ridership.

Twenty Years LRT in Edmonton 3 (continued)

Signalling

Because the North East Light Rail line runs on CN right-of-way and was parallel and between CN tracks, the Canadian Transport Commission required that signalling be installed and that the Light Rail Transit had to activate all the gated crossings. The experience of the Canadian Transport Commission is of course with passenger and freight trains.

Short and frequent Light Rail trains were not part of the C.T.C. experience and it was inevitable that some interesting debates occurred.

Train Protection

The system used in Edmonton is that trains are automatically stopped by applying emergency brakes under the following circumstances:

1. The train passes a red light signal.
2. The train approaches a level crossing and the gates are not down.
3. The train exceeds the speed limit.

The protection consists of a magnet which will trigger a switch on the train which then actuates the brakes and advances a counter. The driver has to reset the counter and requires approval from central control to do so. Of course he then has to give a reason why the counter has to be reset, so offending drivers can be disciplined. When the signal is green, the crossing gates are down or the train is within the speed limit, then an electromagnet above the permanent magnet will neutralize the permanent magnet and the train can proceed without application of the brakes. So the LRT is quite safe. Safer in fact than passenger or freight trains who do not have these overriding controls.

Like the railways there is also a deadman's handle (and footpedal) so that the driver has to be conscious and alert.

Signal Sequences

Railways operate with a block system. They use three signal indications: green, yellow and red. When the train has a green indication it can proceed, the block before that will be red and the block before that is yellow. Yellow means that the next block will be red so the train can prepare to stop.

Light Rail Transit has a much shorter stopping distance than a passenger or freight train. The Light Rail Transit line was divided into 6 blocks with an average length of 1000 m (The length of the line was 4.5 miles or 7 km. Each station was in a separate block. A red or green signal advises the motorman of the occupancy conditions of the block ahead. At the beginning of the block is an overlay circuit of approximately 230 m long, a distance sufficient for safe train stopping. The figure shows the block system. Consider a train at station C. Signal C remains red until the train ahead clears the overlay circuit of Block B. At this

point in time the train C receives a green signal to proceed to station B. As this train enters block C, signal C returns to its red aspect. In this way the minimum possible separation between successive trains is the length of the overlay circuit. Normally the train would not stop just beyond the overlay circuit, so the separation of trains would be much longer.

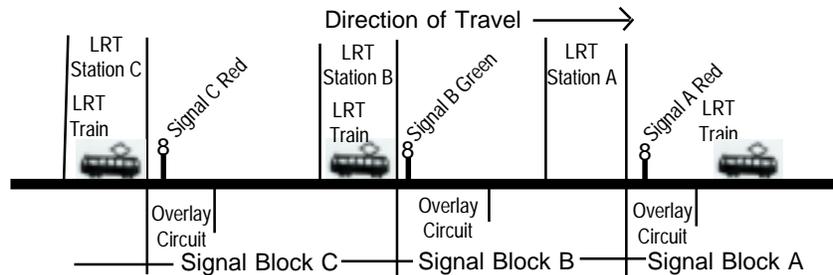
To get approval from the C.T.C. an application was made by letter with supporting documents asking for approval of this system. Because of time constraints the project manager, Mr. Don MacDonald, added that if no reply had been received after a month, it was assumed that the proposed system was approved and installation would proceed.

Traffic and Train Control

Because the North-East line cuts the grid system diagonally, some interesting traffic control problems were encountered. The most interesting was at 112 Avenue, 82 Street and Stadium station.

Light Rail would with a 5 minute headway, cause on the average a closure of the crossing gates every 2.5 minutes. Near Stadium that would be both in the east-west and north-south directions. C.T.C. permitted shorter closures of the gates of about 30 to 40 seconds.

The problem would be back up from traffic signals close to the track, which would produce a safety hazard. The traffic actuated signals would produce problems, so the signal timing had to be integrated with the Light Rail schedule.



Operation of Edmonton's Light Rail Block System

Apparently the C.T.C. does not work that fast and a response took more than 3 or 4 months. It amounted to that an inspector would come to Edmonton to study the system. He wrote a report. After some time another inspector was sent out, he studied the system and wrote a report. Then a consultant was sent out, who studied the system and wrote a report.

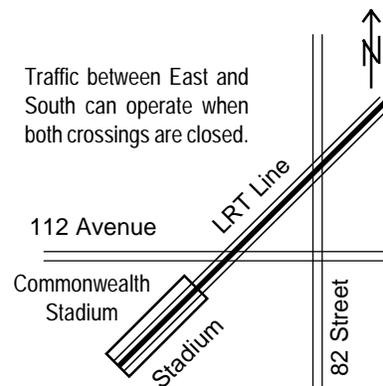
Eventually, a few months before opening of the line, a group from C.T.C. visited Edmonton and told them that this system could not be approved. Trouble was, one it had been installed and secondly there was no time to change it. So it was explained to the C.T.C. reps that if there was no approval there could not be any Commonwealth games because LRT was essential to get people to the venues, in particular the Commonwealth stadium. The reps were invited to come to a press conference to explain their stand (this system is used all over Europe) and why the Commonwealth games could not be held. At that point there were some hasty phone calls back to Ottawa, and an approval was given immediately. It is suspected that there had been some pressure from some eastern manufacturers, however that cannot be proven.

There have been no accidents over the past 20 years because of the signal system.

Design Principles

The design principles were as follows:

1. Inflow of traffic into the crossing had to be regulated
2. The downstream intersection should have a slightly larger capacity (=green time) than the upstream intersection, so that the risk of queuing on the crossing would be reduced.
3. The design of the coordination had to create a sufficient gap between both traffic directions at the railway crossing to permit the passage of a light rail train. This gives a window for the train to pass.
4. The signal cycle time had to be an "integer fraction" of the scheduled headway.



Twenty Years LRT in Edmonton 3 (continued)

Coordination was Tested

It became possible therefore to have the trains depart at Stadium and Coliseum stations in such a way that it did not interfere with the roadway operations. All in all the signal control was an excellent example of coordination between traffic engineering and transit operations design.

The design could be tested by simulation on the computer that controlled the new traffic control system. So prior to opening for about six weeks phantom trains were run on the computer combined with real timing of the traffic signals. No problems were observed on the ground.

Opening Day and the Press

On opening day the press was convinced that the frequent closure of gates on 112 Avenue and 82 Street would produce a massive traffic jam. So TV cameras were there in the morning peak hours to witness this traffic disaster.

In fact there was no change from the previous weeks and trains went through smoothly and no traffic congestion occurred. Well if there was no traffic congestion everybody must have switched to the LRT. So the press declared that the LRT was an enormous success and attracted passengers out of their cars and solved the traffic problems of the north-east section of Edmonton.

In reality the LRT had the predicted number of passengers that were diverted from express buses and some diversion due to park-and-ride. However you cannot argue with the press, they always have the last word.

Reference: Edmonton's North East :Light Rail Rapid Transit Line, Case History Conference Proceedings: Signal System by J. Schnablegger P.Eng and Traffic and Train Control integration by J. Schnablegger P. Eng. and S. Teply, P.Eng and Professor of Civil Engineering.

In the next issue: Part 4: Network changes for the LRT operation and opening credits.

Blockades for VIA?

Frustrated northern Manitobans were threatening to block the track this summer over a shortage of seats on VIA Rail. With tourist traffic for Churchill, VIA trains are regularly sold out south of Thompson. VIA eventually added another coach, but it seems insufficient.

The other threatened blockade was in the Gaspé where VIA users were frustrated with the service, including baggage cutbacks at several stations. Guy Chartrand of the Transport Minister's office managed to talk the protesters out of blocking the line.

Saskatchewan Transportation Losses

The losses of Saskatchewan Transportation continue. The crown corporation continues to serve rural areas, where bus routes are not economically feasible. The loss for the last financial year was \$ 6.6 million and is expected to be under \$ 4 million this year.

Fares in Saskatchewan are about 25% below the norm in the industry. Notwithstanding that revenue from fares dropped from \$ 6.4 million in 1996 to \$ 6 million in 1997. No fare increase is anticipated for this year. The government has told STC Management that the freight side of the operations must make money.

The opposition Saskatchewan Party in April criticized management. They contend that management are political appointees. In July a new manager was appointed, Mr. Jim Hadfield who was general manager of about 20 James Tire

Stop Branch Line Closures

The Western Premiers have called for a halt in branch line closures until the Estey review of grain handling and transportation has been completed.

At the same meeting in Yellowknife the western premiers called on the federal government to finance a national highway program. A month later all the premiers met in Saskatoon and they called on the federal government to fund health care and if necessary forget about highways.

The Canadian Transportation Act, passed when Doug Young was transport minister, makes it easy for the two main railways to close branch lines. The act was supposed to make it easy for short-line companies to take over the lines.

However a number of groups have made business plans and spent many volunteer hours negotiating with the railways so as to be able to form a shortline and preserve branch lines. There is a trend, as reported by The Humboldt Journal on July 23, 1998, that the railways are not cooperating and want to see the branches cut from their networks. The community groups attended a short line conference and grilled the railways. Their conclusion is that it is the rules, that are the problem. The railways want to maximize profits and are not going to change unless they have to (What else is new?, Ed.). It is the federal government which has to decide if it is siding with corporate Canada or the people of Canada, according to Rob Lobdell of West Central Road and Rail. The piecemeal approach that the railways use, makes it very difficult to establish in time a viable shortline.

The other problem is that the main railways do not have to pay the shortline for any car loads they bring to mainline terminals. This gives the railways a monopoly control about closures and makes a mockery of the Transportation Act.

Stores in Saskatchewan and Manitoba. So in July the Saskatchewan Party contended that private enterprise could do a better job and STC should withdraw from rural services. The Saskatchewan Association of Rural Municipalities disagreed and said that the issue is "equal access for rural citizens to doctors, hospitals and other services in the big cities."

It should be noted that private enterprise MacKenzie Bus Lines that served the south shore of Nova Scotia from Halifax through Bridgewater to Yarmouth is abandoning service as of November 1. The reasons for abandonment are given as unregulated small van services, high government taxes and competition from large Irving owned companies.

Source: Saskatoon Star & Phoenix, cuttings sent by Transport 2000 member George R. Corrin.

Transportation Infrastructure Funds?

Federal Transport Minister, David Collenette, has put out feelers for an idea of a shared-cost investment in "solving" traffic congestion problems. Would this go to roads or to rail? Ontario for one, prefers to stick with roads, said the Ontario Transport Minister, Tony Clermont. The CAA Ontario has come out against rail as a solution to smog around Toronto, but the TORONTO SUN is very favourable.

In Vancouver he said that he would like to see a rapid transit connection from downtown to the airport. He would like to see an infrastructure program dedicated to transportation.

Collenette's biggest problem, as always, will be with his own cabinet colleagues, particularly Finance Minister Paul Martin.

Halifax Superport?

An all-party committee in Nova Scotia want to make Halifax host to post-Panamax ships, a new and larger breed of container ships. Halifax needs \$ 500 million to construct a new 1.8 km container pier. Halifax is a day closer to Europe and has an ice-free port.

The CN-Illinois Central link would permit container distribution to Montreal, Toronto, Chicago, New Orleans and the west coast. And of course CP has no linkage to the Atlantic since they abandoned service between Sherbrooke QC and Saint John, NB.

So far the federal government has not found a way to get involved, yet they can see the merits of the proposal.

The Editor would like to receive newspaper clippings with local or provincial transportation issues from Edmonton, Calgary, Regina and Winnipeg.

Edmonton's Planning Goes Back To The Sixties by J. J. Bakker

Back To More Roads

The new Concept Transportation Plan for Edmonton is based on Ring Roads and lip service to Transit. The only difference with the Freeway Plan (METS) of the sixties is that the Ring Roads are further away from the downtown. What was the outer ring in the sixties is now the inner ring and a new ring is reactivated in the Environmental protection belt around the City, established in the seventies.

Downtown of No Importance

Edmonton, unlike Calgary, has worked hard to make downtown irrelevant. The councils of 1977 and 1980 did everything to please the developers of West Edmonton Mall. So when the recession of 1982 hit, the Central Business District (CBD) went into decline. So while originally planning was based on 40% of trips to the CBD, this has now declined to 11%.

No More One-Way Streets

Edmonton is also responding to requests from merchants and eliminating one-way streets downtown. The advantage of one-way streets is that left turns can be made easier. Edmonton also has on 102 Avenue a counterflow lane for transit only. Once abandoned it will be very hard to reinstitute.

Public Input ?

Edmonton says it goes through a process of requesting public input. When it comes to transit issues however, Edmonton seems to do the opposite of what the public favours. Several years ago a survey said clearly that Trolley-buses were preferred over diesel buses. Edmonton Transit promptly set out to reduce the use of trolley buses. It prefers to store perfectly good trolley buses and instead buy new diesel buses. (see Trolleys for the Graveyard page 9)

This time the public said they prefer LRT over buses. So what does the city propose? You guessed it busways! Edmonton Transit already has the equipment to serve the Crawford Centre (half-way between Southgate and the University). Apparently Edmonton rather stores or scraps environmentally acceptable equipment which it already has in favour of buying more stinking diesel buses.

No Trolley Buses by 2008

Under the guise of full accessibility, there is hidden a new policy regarding trolley buses. The concept plan calls for all buses to be low floor and accessible by the year 2008. Since the trolley buses are not accessible for the mobility impaired, it implies that trolley buses will be eliminated by 2008. Victory at last for transit operations, who hate trolley buses.

However there is an alternative. Low floor buses come from New Flyer in Winnipeg. There is no reason why the same low floor buses cannot be equipped with the high floor electrical equipment of the

Suburbs Are The Future?

So Edmonton believes that suburbia is the future. This means more low density, difficult to serve with transit, and no attempt to create higher density environments where they should. That is what the studies of the sixties also said.

What Edmonton really needs is apartments close to the CBD so that the city centre looks alive even after 5 pm.

The areas around Stadium, Coliseum and Clareview LRT stations still have empty land around them that would be very suitable for high density development. In fact Edmonton has failed miserably in redevelopment policies around its LRT stations. The opportunity existed in 1978 when the LRT opened, but closed in 1982 when the recession hit.

Is There High Density?

The highest residential density exists near Southgate. Southgate is also a major bus transit centre and there is a major shopping centre.

The highest concentration of daytime employment density is at the University - Health Science area just southwest of the CBD. The University area is restricted in access by the river which curls around it and by a major arterial road (109th Street) to its east. The traffic pressure is immense from the southwest **to and through** the university area to both the CBD and the Government Centre.

114 Street.....

From Southgate north to the Crawford Centre there is space adjacent to the existing right-of-way for an LRT line. It could be constructed as a surface line. Between the Crawford Centre and the University/Health Science Centre there is 114 Street. This street is a legend in Edmonton.

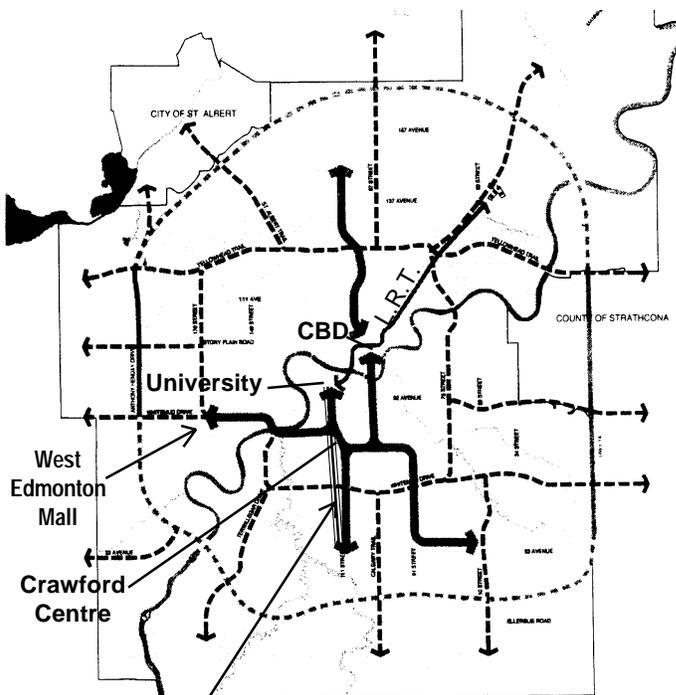
The communities on either side of 114 Street object to any kind of traffic to use 114 Street, they are opposed to widening, they are opposed to anything actually. The big trouble is, that whenever the community's representatives agree to a solution, they get replaced the next year with new representatives who did not agree and the process is allowed to start again.

Some history may help as to why an LRT should be built along 114 Street and how the communities should be protected. Also it would explain why busways or bus lanes are not acceptable.

Transportation Master Plan Concept

Legend

- Proposed outer ring road
- Proposed inner ring loop and connectors
- ↔ Existing LRT Corridor
- Possible NE LRT extension
- ↔ Proposed High Speed Transit (Busways?)



The University - Southgate Link was supposed to be the next LRT link.

existing buses. Presto, you will have accessible trolley buses. The master plan makes no mention of that alternative and no doubt transit operations will fight that idea with all its resources.

Flyer (predecessor of New Flyer) did it before, extending the life of electrical equipment of obsolete Brill buses.

Does not transit have an obligation to use its resources wisely? Can it really claim that one should take transit to save the environment when it replaces electric traction with diesel buses?

Edmonton's Planning Goes Back To The Sixties (continued)

The South-West LRT Line

In the early eighties there was a fierce debate about the south extension of the LRT line. At the time transportation planners of the city wanted to go over the High Level Bridge to the C.P.R yards (which would be relocated further south) and then it would go to Millwoods.

Millwoods was planned and developed by the City and was the darling of city planners. Unfortunately the planners or city council could not see anything else, like existing high density.

The University with its high density of daytime population (60,000) and no access would not be served. The hope was that the CP yards would transform itself within five years into a high density development. Minor problems like who would pay for the relocation of the CP yards were not investigated. Now 20 years later the yards are still there!

The University appeared before city council and stated it would welcome the LRT through the campus, provided it was not on the surface. The communities on both sides of 114 Street agreed to an LRT line, **provided the number of traffic lanes would not be increased and the land use would not change.** The fear of the community was that with all the talk of high density adjacent to stations, that their communities would be transformed into a high density apartment area. That fear still exists and motivates successive community leaders to oppose change.

Busways Instead of LRT

With the proposal to build a busway instead of LRT along 114 Street, the community will feel totally betrayed. It is a sneaky way of adding traffic lanes on 114 Street.

Ottawa an Example?

In proposing busways, the planners refer to Ottawa as an example. Some knowledge of history would be helpful. Ottawa could not solve the problem of obtaining exclusive right-of-way in the centre. So they built their transitway system from the outside towards the centre, since it was easier to get right-of-way at the outskirts. (The same argument holds for building ring roads and freeways from the ring roads out, land is too expensive towards the centre). Ottawa still has not solved to go through the centre. It proposed tunnels, but both the costs and the operation of buses in tunnels made the scheme impractical. With the loss of federal employment exclusive lanes downtown would suffice. Also Ottawa said, but did not mean it, that they could always convert to LRT later. The big advantage claimed for busways is that it eliminates transfers between feeder lines and mainline in the peak hours. This is in contrast with Edmonton's history.

Edmonton Solved The Expensive CBD First

Edmonton solved transit flow in the centre first by building an LRT tunnel and in that way added people capacity. It is ironic that now that Edmonton is close to the easy part of surface construction towards the outskirts, that planners say they should build busways and introduce transfers. By not completing the job and linking the two high density nodes (Southgate and the University) Edmonton is wasting its previous investments. In fact they have had most of the equipment needed since the eighties! And that is all because of a few hundred metres of tunnel needed to get to the surface from the University station.

The Environment Does Not Matter

It is astonishing that in a time where the compliance with the Kyoto agreements are already in doubt, that Edmonton should undo its major environmental initiatives, by stopping the expansion of LRT and eliminating trolley buses.

It is also a waste of money since the maintenance facilities for an extended LRT are in place. The moment the LRT comes to the surface, it can operate with the normal traffic signal system.

Yet the city planners know that the province want to see more environmentally acceptable solutions. The contrast with Calgary is noticeable (see next column). Edmonton is now worried that Calgary will get a greater share of the provincial infrastructure program. It has not occurred to the leaders in Edmonton that perhaps Calgary deserves more funds because they may have better plans. Why invest in a city that is determined to waste its past investments?



When the first special train full of dignitaries from the University reached Churchill Station, it was greeted by these sheriffs. The message of "MORE LRT" still applies.

Calgary LRT Expansion

Siemens and other companies have proposed a \$400 million expansion of Calgary's CTrain LRT system. The LRT system is almost too successful with its ridership growth exceeding the population growth.

Calgary's C-Train runs on the surface through the CBD and has three lines to the outlying areas.

One part of the plan is to add 43 LRT cars to relieve today's often overcrowded conditions. The other part of the plan is expansion of the LRT by 14 km and 7 stations, possibly within four to five years.

City officials will examine the plan and prepare a report this fall. Meanwhile, the Alberta government has no funding plan for new LRT trains and tracks. A provincial infrastructure task force report is expected next month in which any future transit funding plans will be announced.

The flaw in Calgary's plan is that LRT expansion may not be soon enough and in the south for example a freeway is proposed parallel to recommended LRT extension.

Trolleys Headed For The Graveyard?

In August one of our correspondents noted that seven more BBC trolleybuses have appeared in a storage yard behind Ferrier/Davies Garage in Edmonton. This is a location which, from past experience, seems to be the place ETS stores vehicles either for long term or before disposal. These particular trolleys were recently in service, one of them even has the destination curtain showing for the new route 131 NAIT!! These trolleys are in excellent condition compared to some of the 30+ year-old dilapidated diesels one sees running around town here and there is no obvious reason why they should be scrapped. They now sit among BBC trolleys returned from Toronto in 1994 which ETS has never bothered to rejuvenate and put back into service.

There is such a shameful waste of equipment and resources evident here. These are excellent trolleybuses and have seen relatively little service.

Again, no trolleybuses have run on Edmonton streets since the end of June.

The only explanation given is roadworks. However, until early August when a portion of Bellamy Hill collapsed, there were no roadworks affecting trolleybus routes except route 3. And that has been under construction since May already.

Public Transport is Threatened, at the national, provincial and local level.

Transport 2000 Canada needs more members to advocate better public transport. You are urged to interest your friends in joining our organization. Please help now.

VIA Blamed for Crash

The Transportation Safety Board released its report on the Biggar crash on September 1, 1998. It concluded that VIA was to blame. They found that when so many people ignore what should be done, then there is a systemic problem.

The report confirmed that the immediate cause was abroken axle on the second locomotive due to an overheated bearing. A warning system, that only VIA engineshave, was disconnected because they thought the warning system was faulty.

VIA faces a \$ 20 million lawsuit brought by Seymour Kaplan, whose wife was killed in the accident. 78 persons were injured. There were 220 people on board the train.

Management says that all the recommendations will be acted upon. The union says that the cutbacks in maintenance were too great. The cutbacks do not explain ignoring warning signals though.

Half a Million Dead

Traffic accidents cause more than 500,000 deaths per year worldwide. The International Red Cross released these figures. It expects that as motorized traffic increases, that traffic accidents will be the third highest cause of death in twenty years. Fatal traffic accidents are increasing particularly fast in the third world countries. This is also due to a lack of traffic discipline. The least safe countries are: India, Mexico and Ethiopia. The fatality rate in these countries is about 100 times that of safer countries such as Australia and Japan.

[Source Netherlands World Radio]

Vancouver Council

approves Rapid Bus along Granville Street.

The Rapid Bus project was passed unanimously by Vancouver City Council on Tuesday July 28, 1998. There were three sittings needed for the public hearing. Residents and business people along Granville (south of the bridge) were very hostile. The opposition was probably due to the heavy increase in traffic from 27,000 per day in 1976 to 54,000 per day in 1998. However the hostility may not have helped those who opposed the proposal. Reasoned discussion became impossible.

There are three parallel streets going south from Vancouver, namely Granville, Oak and Cambie. All three have bus routes. It is widely assumed that the future rail transit line (SkyTrain or LRT) will be on Cambie. The rapidbus will use 44 articulated low floor buses between downtown Richmond and downtown Vancouver. Service will be a bus every 2.5 minutes in the peak to 10 minutes in the late evening. The objective is to get people out of their cars into an attractive fast bus service.

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Transport 2000 Canada

Please note that there has been an address change for our headquarters from 111 Sparks Street to 117 Sparks Street. For mail the post-box and postal station remains the same. You can now reach the Hotline on 1-800-771-5035. Telephone: (613) 594-3290, Fax (613) 594-3271.

Vancouver Island Railway

The Esquimalt and Nanaimo Railway (E & N) was completed on August 13, 1886. After the CP took it over in 1905 it was extended north to Courtenay and west to Port Alberni.

The CP has tried to close down the passenger service in the early seventies. VIA took over the service in 1978. Mulroney's government tried to close down the service again in 1990, but was stopped through legal actions.

CP wants to create a short line of the Parksville - Port Alberni line. This will probably be a prelude to either closure or selling to a shortline of E&N later.

The E&N Steering Committee under Bruce Tunstall is fighting to resurrect the railway as a tourist attraction. They will have a stakeholders meeting in September or October to discuss the future of E&N's VIA service. The committee has made a \$ 22,000 study and business plan that maps a strategy to replace the three RDC 's with more modern equipment. The total cost would be \$ 7.5 million.

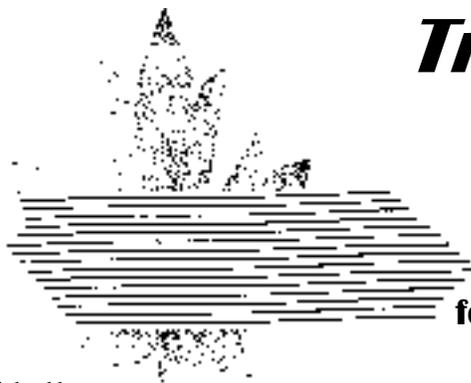
If you want more information contact: J. B. Tunstall, 173 Bird Sanctuary Drive, Nanaimo, BC, V9R 6G8
 Telephone: (250) 754-8641
 On the internet: www.islandrail.bc.ca

Interesting Point

The extra cost of going for a SkyTrain instead of LRT, could have paid for an additional Lions Gate Bridge.

The government rejected earlier this year to spend \$ 400 million to add lanes to the Lions Gate Bridge.

You can find Transport 2000 BC on the web at: www.vcn.bc.ca/t2000bc/



Transport 2000 West Canada Newsletter

98 - 4
October
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December
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for Manitoba

Saskatchewan

Alberta and

British Columbia

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Our Mission: *Transport 2000 Canada represents the interests of public transportation by promoting socially, environmentally and economically sustainable policies, programs, services and actions.*

Editorial by J. J. Bakker

The minister of Transport The Hon. David Collette P.C., M.P. is determined to introduce franchising and to do it fast. His example is Britain, our example why not to do so, is also Britain. With the many players nobody is any longer responsible and the players are getting very good at fingerpointing. VIA of course is silent. VIA had hoped for some independence but the answer to that was no. There are no indications that the operating railways are very keen on the idea either.

Transport 2000 Quebec held a conference on VIA on December 4, 1998. Unfortunately the Minister was not there, nor was there anybody from the bureaucracy. So in this issue we dwell on this development. Do not hesitate to express your view to the minister, His address: House of Commons, Ottawa, ON, K1A 0A6.

For the west it will probably mean that Rocky Mountaineer will get the franchise and they are only in the tour not the transport business. On p. 5 we outline a better idea. Involve the operating freight railways.

The other brilliant idea that the minister has come up with is that in the off-season, there should be no sleeping cars. That is the same blunder the Hon. Pepin made in 1981 and which the Hon. Lloyd Axworthy tried to correct before the liberals went down to defeat. Ministers from Ontario or Quebec do not understand the size of Canada.

Advocacy is frustrating. To get our views even reported is difficult. Submissions are probably not even read. Yet at Transport 2000 we reject the confrontation route that other organizations follow, which do get attention. And then the politicians object that those that confront, rather than want to debate, are behaving so badly. Well we will continue with our critiques, but at all times we will point out an alternative. If only we could get those in charge to read and listen. It may make for a better Canada, with better passenger transportation. They could even show those that confront that our methods are more effective.

The editor would like to receive news clippings and articles from Manitoba, Alberta and also the Victoria region of B.C. Anyone has an article about LRT for the Victoria region?

*Best Wishes for Christmas
and a Happy New Year
to all Transport 2000 members.*



Amtrak Train with Premium Freight at the Head-End. The Material Handling Cars require cabling if at the Head-End. Another way of moving Premium Freight is to have a slave engine with passenger cars attached to a premium freight train.

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The Ploy of High Occupancy Lanes (HOV)

In December 1994 we reviewed a report: "The Bus Transit Industry, Its Underutilized Potential" [US-DOTT-94-20]. It said that exclusive bus lanes or busways are the best solution in upgrading a bus transit system. It also showed that HOV facilities are the least desirable alternative. We then added:

"The pressure of the automobile lobby has caused several exclusive bus facilities to be converted to HOV facilities in the USA. It increased vehicle.km travelled and freed additional capacity for single occupancy vehicles. This problem has been further aggravated by defining HOV as a vehicle with two or more persons.

This report is particularly relevant in the lower mainland of B.C. The Highway Department would like to add an HOV lane on the Trans Canada Highway. The fact that this will create more vehicle.km and will dump more traffic on city streets and cause more congestion closer to downtown and then increase the need for more parking space is just not part of the analysis. [Not my department or not my jurisdiction]. In fact the Highway Department wants to add a traffic lane, and uses the HOV designation purely as a Public Relations gesture, to show how broad minded they are. Well it is the wrong answer to an urban or metropolitan transportation problem".

Guess what: The HOV lane on the Trans Canada Highway east of Vancouver (Cape Horn to Boundary Road) will now allow 2, instead of 3, per car. So they added another traffic lane at a huge cost, so as to relocate traffic congestion. The money should have been spent on improving public transport.

60 SkyTrain Mark II Ordered.

The B.C. Government has ordered 60 Mark II cars for the SkyTrain from Bombardier. 50 of these cars will be assembled in the Vancouver area. There is also an option for a further 60 cars.

There are still some design details to be resolved. The Premier would like to see a more streamlined front, while the manufacturer and operator would like to see a more vertical front. The first train is always manually operated to see the track is clear. Good vision of the track is important. See also page 7 for a similar problem with VIA.

Derailments

In our last issues a few errors occurred on Page 2. We are grateful to Mark Strickland for pointing out these errors or omissions.

1. It is Citadis, not Citadus
2. GEC Alsthom is now "Alstom"

Also the Incentro has been ordered by Nantes (which is quite a coup given Alstom's hold on the French market).

The weight per sq.m of the Combino with a width of 2.65 m is now known.

For the SkyTrain Mark II the specifications of the Kuala Lumpur car are used. For Vancouver the width at floor height will be 2.4 m but the car flares out giving a greater width at seat level.

Also the fact that the SkyTrain minimum unit is 2 cars was not made clear enough. We reprint the two tables as corrected.

Equivalent Lengths

The minimum operating unit is in the case of LRT measured by cars. In the case of the SkyTrain one unit is in fact 2 cars coupled together. Here are some other equivalent lengths:

	Cars/ unit	1-unit	2-unit	3-unit
Edmonton	1	24.3	48.6	72.9
SkyTrain Mark I	2	25.4	50.8	76.2
SkyTrain Mark II	2	33.7	67.4	
Combino 26m	1	26.0	52.0	78.0
Combino 38m	1	38.0	76.0	
Combino 48m	1	48.0	96.0	
Combino 26/48			74.0	

The Mark II cars are expected to have a passage between cars to improve passenger circulation. Also it is expected that the Mark II cars will devote less space to equipment cabinets than the Mark I cars.

Revised Comparison of Light Rail Vehicles

Car Type	Car weight kg/sq.m	Width m	Length m	Seats	Standees 4/sq.m.	Total
Combino (Siemens)	450	2.3	varies upon number of modules used			
Combino (Siemens)	414	2.65	varies upon number of modules used			
Incentro [Adtranz]	400	2.3*	varies upon number of modules used			
Citadis(GEC Alstom)	500	2.3*	varies upon number of modules used			
Urbos (Vevey/Bombardier)	400	2.3*	varies upon number of modules used			
SkyTrain I	485	2.4	12.7	40	35	75
SkyTrain II	492	2.4+	16.9	30	102	134
Edmonton	475	2.65	24.3	64	86	150
Portland (high floor)	576	2.65	26.8	76	90	166
Portland (low floor)	660	2.65	27.7	72	94	166

The Combino with 2.3 m width is in operation,

The Combino with 2.65 m width is on order

The Incentro is on order,

The Citadis and Urbos are in the design or production stage.

The SkyTrain II is operational in Kuala Lumpur with a 2.65 m width.

The SkyTrain II for Vancouver is in the design stage, it will have 2.4 m width at platform height, flaring out to 2.65 m at seat height, so that it can operate on the existing line in Vancouver.

* also available in 2.65 m

+width at platform height, 2.65 m at seat height.



Adtranz "Jumbo" Light Rail for Strasbourg.

Instead of coupling two smaller units, they have one real long one, 41.3 m long. The limit of the length of a unit is the length of a city block. The advantage is that passengers can walk through the unit to find a seat. (Photo from Tramways and Urban Transit, a monthly magazine, published by Ian Allan and Light Rail Transit Association, which gives an excellent worldwide overview)

NB: Page 2 went missing when printing. That is why it appears on the back and out of order. Our apologies. JJB.

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TRANSPORT 2000 CANADA is a national federation of consumers devoted to advancing the public interest in transportation of all modes. A registered charity, it is involved with research, public education and advocacy of public transport issues. It publishes a newsletter "Transport Action".

TRANSPORT 2000 CANADA [Alberta Branch], Transport 2000 BC, Transport 2000 Saskatchewan and Transport 2000 Manitoba are separate organizations in the western provinces. Half the membership fee goes to the Federal Organization.

Saskatchewan Branch Lines.

The relentless closing of branch lines and tearing down of grain elevators continues in Saskatchewan. The resulting increasing frequency, weight, and speed of trucks will lead ultimately to road failure. These moves combined with low prices for grain, higher prices for grain movement and the hog disaster causes economic turmoil in Saskatchewan.

It is ironic that branch line closures occur after the federal government spent \$ 900 million in upgrading them.

The Kyoto commitments of reducing emissions are being ignored. Emissions of trucks are twelve times those of moving the same tonnage by rail.

There is not even proper provision to turn lines over at nominal cost to either provincial or local control. The railways often prefer to abandon the lines.

The Canadian Wheat Board should be more involved in the grain transportation issues. The elevator companies do not want the wheat board or the farmers to be involved in transportation issues. Yet it are the farmers who ultimately have the bill.

The above comments are extracted from a brief by Transport 2000 Saskatchewan to the government last September 1998

Winter Olympics in Whistler?

The Canadian Olympic Committee will support Whistler's bid for the Winter Olympics in 2010. There are a few more hurdles before the International Committee will award the games.

Richmond hopes that the building of a rapid transit link to the airport (and Richmond) will precede the Olympics.

The other problem that would have to be addressed is access to Whistler from Vancouver, which is now dependent on a dangerous two lane road. There are frequent slides along this road, apart from the many curves. The railway is single track and next to the road. All will need upgrading.

Ballard Buses

Three buses powered by Ballard Fuel Cells are being tested by BC Transit in Vancouver for the next two years. A similar two year test got underway in Chicago last March. It is not expected that the fuel cell powered buses will be ready for the market until 2002 at the earliest.

SkyTrain Costs in Dispute

The estimated costs are officially as yet unknown. Outside estimates for the New Westminster to Lougheed Mall section appear to be escalating.

With the shortage of money, it is unlikely that SkyTrain will proceed beyond Lougheed Mall. Coquitlam would like to see their segment next in line.

Vans Instead of Buses

Saskatchewan Transportation Co. (STC) has switched from buses to vans on several little-used routes. The move could save towns from losing service on little used routes. The three routes affected are Eastend, Lanigan and Hudson Bay. The 15 seat vans will pull freight trailers. Savings are estimated at \$ 30,000 per year per route. STC is expected to lose \$ 3.5 million this year. [Saskatoon Star Phoenix Sept.18.1998]

RailAmerica takes over from E&N Railway.

CP has turned over its E&N operations to RailAmerica Inc. The Nanaimo - Port Alberni line was sold and the Victoria - Nanaimo as well as Parksville - Courtenay segments were leased. VIA service will continue. The move followed the usual CP procedure of first creating a subsidiary E&N (in March 1996) and then to sell the subsidiary later.

Bruce Turnstall of the E&N Steering Committee is concerned that RailAmerica will bail out if it does not make money. They have no roots in the community. He said that the railway has never been properly managed and has been allowed to deteriorate.

VIA carried 44,000 passengers in 1997 despite horrendous service. RailAmerica has little experience with passenger rail. RailAmerica will continue to provide the crews for the VIA service.

The Talents to be used in Ottawa would be a suitable vehicle for E&N service, provided freight service was operated at night. The RegioSprinter is another candidate. VIA provides the equipment and does the scheduling and marketing. It also pays a higher than usual cost. The costs to VIA more than doubled suddenly in 1990.

Halifax Superport

Halifax is one of three ports being considered as a superport on the east coast. The others are New York and Baltimore. The development would improve CN's intermodal traffic, which accounts now for 18% of CN's revenue.

The advantage of Halifax is that no dredging is required and for European traffic it is 24 hours closer to Chicago than from New York. Politically the situation may be different.

St. Lawrence Seaway

About forty years ago the 280 km St. Lawrence Seaway came into being. It would take sea traffic right through to Chicago. However the state of New York was successful in limiting the depth of ships, so as to protect the New York Central Railroad. The seaway now operates well below capacity. The Canadian government has handed over day-to-day management to a group representing the major users of the waterway.

The Cascadia Corridor

The four new custom built Talgo sets went into service in the Cascadia corridor (BC, Washington, Oregon). The trains will be used for three of the daily trips Seattle - Portland trips (with one extending to Eugene) and the one Seattle - Vancouver BC trip. Plans are under way to add a second round trip between Vancouver BC and Seattle.

Amtrak and Washington would like to see a greater interest from Oregon and the Provincial Government of British Columbia. Although the B.C. government makes sympathetic noises, it will not contribute financially.

The goal is to develop a frequent, fast intercity rail service within 20 years. The total cost would be Can\$ 2.6 billion. The estimated cost in B.C. is Cdn \$ 1 billion. The maximum speed of the new Talgo trains is 200 km/h. The present travel times are: Vancouver - Seattle 4 hours. After 20 years it would reduce to 3 hours.

One of the obstacles to shorter travel times is the slow speed order at White Rock of 35 k/h. But the tilting technology also needs approval. Ultimately there will have to be realignment away from populated areas and a new Fraser River crossing. Some in White Rock would like to see a train stop as well.

The present service leaves Seattle at 7:45, arrives Vancouver 11:40, leaves Vancouver 18:00 and arrives in Seattle at 21:55. The train for Chicago leaves at 16:50 and to Los Angeles at 10:00. For good connections a greater frequency is needed.

New High Speed Locomotive

The U.S. Federal Railroad Administration and Bombardier will develop a \$ 25 million prototype locomotive for high speed trains.

The locomotive will integrate a gas-turbine system capable of producing 4,000 hp and weighing 100 tons, half the weight of some diesel locomotives. The locomotive could move trains up to 240 km/h or 150 m.p.h.. [Montr.Gazette, Oct.9.1998]

Looking for Parts, CPR Found an Engine

This summer the CPR was looking for parts and found a second Canadian Hudson steam engine in a private railyard in Scranton, Pa. The owner did not want to sell parts but did sell the entire engine. CPR then asked Al Broadfoot, caretaker of B.C.'s Royal Hudson to bring the engine to North Vancouver.

Al travelled to Scranton and with a modern engine towed the second Hudson (Number2810) 5,280 km (3,300 miles) to North Vancouver. Travelling daytime hours only, the trip took 19 days. It is expected it will cost Cdn\$ 1.35 million to fully restore the engine to operating condition.

[North Shore News, Oct. 14, 1998]

The Minister of Transport responds to the Standing Committee of the House of Commons. by J. J. Bakker

Highlights

◆ **The Government rejects the recommendation that VIA becomes a Commercial Crown Corporation.** Implied is that Transport Canada will continue to control VIA and will not give it greater operational flexibility and access to capital.

◆ **The Government will not contribute further to the High Speed Train proposal of Lynx.**

◆ **The Government will not separately fund the remote services, funding is part of the (*inadequate?*) annual \$ 170,000 allocation out of the budget.**

◆ **The government is interested in public-private partnerships such as franchising.**

◆ **The Government will address track access issues with the operation railways.**

◆ Transport Canada and VIA will develop a **strategic long range business plan** that will outline VIA's route network, levels of service, funding requirements, proposals for equipment renewal and private sector involvement. This plan will be produced before September 1999.

Martin is the Problem

It is clear that Transport Canada has not succeeded to get any money for investment in passenger rail equipment from the Hon. Paul Martin.

The Real Choices

The Minister of Transport has stated repeatedly that he is committed to the continuation of Passenger Rail Services and that he does not want to see cuts. So what were the choices he had:

1. **Close down VIA.** This is politically not acceptable.
2. **Continue as is** at \$ 170 million subsidy per year. This would be the same as closing down VIA but in 2 or 3 years, so it was rejected.
3. **Spend \$ 850 million to \$ 1 billion** to implement VIA's transformation project. This is not possible because of Hon. Paul Martin objecting to an increased budget allocation (even though it would be a once only allocation).
4. **Franchising** and require new equipment to be used or provided by the franchise.

Franchising Now

The minister wants to franchise now the entire network and not experiment with some segments as the Transport Committee had recommended.

Transport 2000 Has Concerns About Franchising. Britain, the Example? From Minor Confusion to...

It is interesting that both Transport Canada and Transport 2000 use Britain as an example. Transport Canada thinks the franchising in Britain is a success. Transport Canada talked to the bureaucrats that implemented franchising and came away impressed.

Transport 2000 Canada looks at it with a different point of view. The organizational structure, which was British Rail, was relatively simple. Now Britain has a director who looks after franchising, railtrack for the infrastructure, and a number of franchisees. All require detailed legal agreements. Prior to privatization all investment was stopped. Now there are again orders for equipment, but far less than British Rail used to make. Another beneficiary has been the paint manufacturing industry, since each franchise has its own colour scheme. Reliability, transferability and service have deteriorated on many of the franchises. Complaints are many.

Subsidy Doubled

The bottom line has been that subsidies have actually doubled from what they were before privatization, with zero benefit to show for it. It should be pointed out though that the franchisees have promised to require less subsidy in the future, but that is a promise and not yet reality.

The decision to privatize was made on the basis of a political philosophy. British Rail had become already far more efficient than when the political view of privatization was adopted by the conservative government. This privatization greatly helped in defeating the conservative government.

Fundamental Differences

In Britain and lately in Europe the track infrastructure is being separated from the operating companies. The operating companies have to pay the infrastructure company (Railtrack in Britain) for the use of the track. In Britain Railtrack is a private company, on the Continent of Europe the infrastructure companies are at present "government owned corporations". The continental governments use these infrastructure corporations to channel railway investment in the same way as for roads.

In Canada and the USA the operating companies own and are responsible for the track. In Canada VIA has to negotiate the payments for the use of track. In the United States they are only obliged to pay avoidable costs, but can pay bonuses for on time performance.

The arrangement at the moment is that Transport Canada controls VIA, VIA has the task of running passenger trains. VIA uses the tracks of the operating railways and pays them a lot of money for the use of tracks. And VIA only carries passengers. The deficit (or difference between costs and revenue) is financed by the government.

With franchising this would change. Now VIA becomes the channel for franchising and enters into contracts with interested parties, who will operate passenger trains. VIA would have to specify what services are to be provided. VIA would have to provide the coordination. The franchise would have to get equipment. And in the background will be Transport Canada.

Extra Costs with Franchising

There are a number of extra costs that will be introduced with franchising. Each franchise will have its own administration, a desire to make a profit, payments for equipment and operating costs. A franchise has less negotiating power with the operating freight railways than VIA has, since VIA is still under the direct control of Transport Canada.

And in addition there will be a need for a host of legal agreements between the government and VIA, VIA and the franchisees, the franchisees and the operating freight railways and last but not least labour agreements. It will be a paradise for lawyers.

As a consumer advocacy organisation one can only hope that there will be some money left to actually provide a service.

Who is Awarded?

VIA management has tried in the past number of years to get costs under control. Sacrifices have been made by its labour force. Labour unions have made a sincere effort in helping VIA to reduce costs. Their rewarda possible loss of their jobs.

VIA management however has its faults. By depicting the western services as a tourist operation, they have put themselves in the position of having no defence from the attacks by Rocky Mountaineer. Unlike a private company VIA cannot lobby or do fundraising for a political party in power. They should have concentrated on their passenger transportation role, even though tourists can use transportation services. This means services should be from Winnipeg via Calgary or Edmonton to Vancouver, not just in the Rockies.

Franchising of Passenger Operations by J. J. Bakker

Equipment

VIA also blundered when they had the chance in 1986 to get efficient bi-level long distance cars.

One unanswered question is what happens to the present VIA equipment. No franchise will have equipment to operate from day one. So the franchise will have to use VIA equipment until it can acquire new equipment.

What if the Equipment is Sold?

One alternative is that the equipment is sold to the franchise. No doubt the price would be set at its depreciated value. This is what Rocky Mountaineer is hoping for. Getting the west transcontinental equipment for almost nothing.

Taxpayers invested heavily in upgrading this equipment.

If the franchise is not successful and fails to meet its obligations, then there is no alternative available to provide a service. The franchise could sell the equipment to any other party in order to recoup costs before getting out of business. Mexico may be interested. Even in Britain the equipment was not sold to the franchise. It went to a separate leasing company, which leased it to the franchise. As a consumer organization we do not want to see the equipment disappear.

VIA Should Retain Ownership and Lease the Equipment.

The big advantage of leasing is that consumers will be protected. If the franchise fails there is equipment to maintain an operation. The other big advantage is that it gives VIA (as a coordinating agency) revenue, revenue together with the government grant of \$170 million that will flow back to the franchises.

The advantage for the franchise is that it does have to put out capital for used equipment but can concentrate on acquiring new equipment, maybe in partnership with a manufacturer.

New Equipment

VIA had hoped to capitalize the annual grant and get new equipment, which in turn would reduce operating costs. That role, with franchising, would go to the franchise. It would mean that the franchise would have to be for a time period that allows for the depreciation of the equipment. Will the government guarantee the operation for 10 to 15 years? And what protection is there for the travelling public during a long franchise period?

Depreciation Rules

The operating railways have complained for a long time about the different operating environment in Canada versus the United States. In order to bring in a balance between the permitted depreciation period and a franchise period, the rules for depreciation of rail equipment have to be changed in Canada and brought into line with the USA.

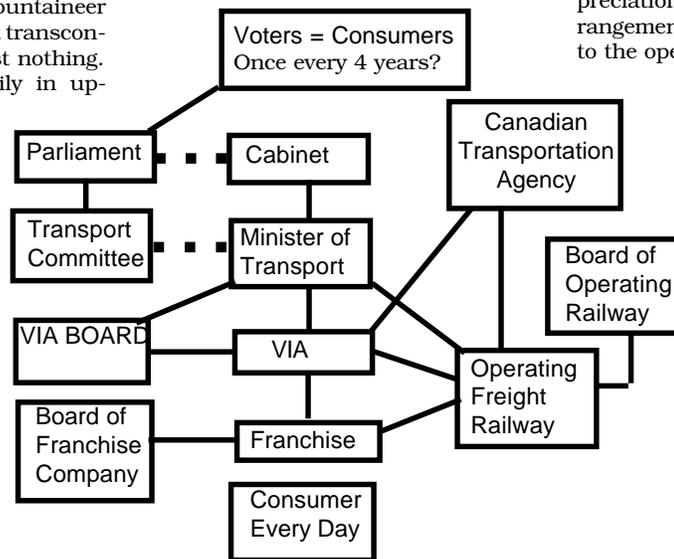
The other complaint of the railways is taxes which is also an important subject that the government still has to address.

There is a Solution...

The organization web could be simplified, if the operating freight railways would take on the franchise for the transcontinental and corridor services.

If the operating freight railways were the franchises, then premium freight could be attached to passenger trains and a more economic operation would result, without duplication in the case of collecting, loading or unloading and transporting containers or truck-trailers on flat cars.

The concession of rail equipment depreciation should be tied to this arrangement, so that there is a real benefit to the operating freight railways.



The Organization Web with No Link to the Consumer

Submission to CN and CP

Immediately after the Transport 2000 Canada Executive had a meeting with the minister on October 23, 1998, it was decided to write a letter to CN and CP, suggesting that they become the franchises for the national network, perhaps in partnership with a manufacturer.

If the Minister is determined to have franchising then as a Consumer Advocacy group we can point out its pitfalls, but if it is done it better be done right.

As the organization web shows, it would simplify the workings of passenger rail if the operating freight railways became the franchises.

Premium Freight

VIA made it clear to the House of Commons Standing Committee that carrying freight was not part of their mandate. Since all public transport providers that make money, also move freight (airlines, buses, Amtrak), this refusal to face facts is disturbing.

The Hon. David Anderson, the previous Minister of Transport, in a letter of June 11, 1998 wrote: "Finally with respect to the carriage of goods by VIA, there is currently no government restriction hindering VIA from carrying the commodities you cited (express goods, trailers, parcels and mail). However, to date the corporation has chosen not to pursue this business." (see letters August 1997, 1997-3, Newsletter, page 6 and 7).

However carrying Premium Freight on passenger trains is not easy. The operating freight railways object because they see it as competition.



Amtrak Material Handling Cars at the rear of a long distance passenger train. (Photo from RGI, July 1998)

Conclusion

Franchising without hauling premium freight is doomed to fail. The best solution would be, if the operating freight railways would move the passenger train units with the premium freight trains.

Transport 2000 Quebec Exposes The Minister's Thinking

Transport 2000 Quebec organized a meeting in Montreal to discuss the future of VIA and franchising. La Presse covered the meeting, and their reports were picked up by The Globe and Mail, National Post, The Montreal Gazette and other Southam papers.

It sent reporters questioning the minister of transport. The franchising project is merrily racing along.

SG Canada, a subsidiary of Britain's Hambros Bank, has been hired to help prepare the plan for Via Rail. Hambros is an arm of Societe Generale SA, and was instrumental in the privatization of British Rail six years ago.

Published reports have outlined plans for Via Rail to be split into three franchises: the Windsor-Quebec City corridor, Western Canada and the Atlantic provinces. This is one of a variety of possible options, Collette said, insisting that no decisions have yet been taken.

Ottawa is "committed to long-term sustainability of passenger rail in Canada," an assistant to Collette said. "I don't think there has ever been a long-term commitment to Via. Something has to be done.

Richard Branson's British-based Virgin Rail Group Ltd., Stagecoach Holdings Plc of Perth, Scotland, and Montreal-based Bombardier Inc. have all been floated as prospective bidders for Via Rail geographic franchises. Collette refused to confirm prospective involvement from any of them.

But Linda Coates, a public-affairs official at Bombardier, left the door open for possible Bombardier involvement as a Via operator. "We'll have to wait and see" how the process evolves, Coates said.

Bombardier gets together with Virgin Rail in the UK.

Canadian industrial giant Bombardier Inc. has been awarded a \$2.6 billion contract to build and maintain rail equipment. The deal with the Virgin Rail Group, a British company, is the largest contract the company has ever been awarded.

Bombardier will build 78 trainsets or 352 diesel electric cars for Virgin and maintain them for the next 13 years. Virgin will pay approximately \$955 million for the cars and \$1.64 billion for maintenance. Capital cost is \$ 10.8 million per set or \$ 2.71 million per car with a maintenance cost of about \$ 375,000 per year per car.

The cars will be manufactured at Bombardier plants in Britain, France and Belgium. Deliveries will be made between December 2000 and July 2002.

Meanwhile in the United States...

Amtrak Self-Sufficient by 2002.

Gil Mallory, Amtrak West President, who spoke at a NARP Regional meeting in the West, confidently predicted Amtrak operations would reach self-sufficiency by 2002. This congressionally mandated goal will be achieved by developing a "market based analysis" of where opportunities exist and providing services to these markets. Customer services standards will be developed to remove the inconsistencies Amtrak passengers now experience. The focus of Amtrak will be on "growing the business". Gil identified some of the projects that are and will be financed through the Taxpayer Relief Act money allocated by Congress last year. Gil announced an 11th frequency will be added to the San Diegos, a 5th, 6th, and 7th frequency will be added to the Capitols, and a 5th frequency will be added to the San Joaquins to serve Stockton and Sacramento. A 4th frequency will be added to the Portland-Seattle corridor and Gil hopes to add a 2nd frequency Seattle-Vancouver by July of next year. Gil stated that Amtrak West was recently expanded to cover the states of NV, AZ, UT, and ID. He announced that daily round trip service between LA and Las Vegas will hopefully start in 1999. The Talgo trainset which will be used may be employed in a series of demonstration runs between Phoenix and Tucson prior to the start of the Las Vegas service. By 2000, Gil would like to see service from San Francisco to Monterey and as well as a train to Reno from the Bay Area in addition to the existing train. He also sees potential for commuter rail between Palm Springs and LA and service from northern to southern points in Utah via Salt Lake City. When asked about new long distance trains such as the Pioneer (Los Angeles-Salt Lake City-Seattle). Gil said he would prefer building short segments first then connecting the segments along with the help of mail/express.

Portland Max opened its Westside line on September 12, 1998. First indications are that patronage is 22% above the "after-one-year" prediction.



California Invests in Rail

Warren Weber, Rail Program Manager, Caltrans, also addressed the western regional meeting of NARP. He echoed some of the service enhancements outlined by Gil Mallory but added some more possibilities that the state DOT is looking at. Nearly 1 million Californians ride some form of rail each day which is up from 1/2 million ten years ago. (Compare that to the record in Canada). Caltrans is improving track in various parts of the state in order to improve passenger train running times and frequencies. These projects include double tracking and grade separations. He wants to see a Sacramento - Oakland running time of 90 minutes with up to 20 trains per day. He would like to see hourly service on the San Diegos with a running time under two hours. He is exploring new Coast service with possible extension of a San Diegan north and/or an extension of a Capital south. Warren stated that Amtrak Thruway buses are an integral part of the CA transportation system. He said 60% of the passengers on the San Joaquins come from connecting buses. A bus route must maintain at least 2 1/2 riders per trip or will be dropped. This low level of ridership is justified by the income generated by those passengers on the rail portion of their route.

And Then There is San Diego

Tom Larwin, GM for the MTDB (San Diego Transit), reviewed development of the Trolley which was begun in 1981. Growth of the Trolley to a system totaling 47 miles and 55 stations has been brought about incrementally (line extensions, double tracking, grade separations, joint station development, etc.) done gradually over the years when funds became available. MTDB is currently rebuilding their San Ysidro station.

Tijuana is beginning construction of a T shaped LRT system which will have its northern most station located some 300 feet from the MTDB station just across the border. Future Trolley expansion includes service to the airport,

north coast beach areas, and San Diego State U. which will be served by an underground station located in the center of the campus.

The BART Error, to be repeated by VIA, Why? by J. J. Bakker

The A B C's of Cars

In 1962 the Bay Area Rapid Transit (BART) was formed. It hired consultants who designed the new rapid transit system. The consultants started from scratch, viewing any existing rail practices as out of date. As a result the railway gauge is not standard but wider, the reason given was that on elevated structures the overturning moment would be less as a result of wind forces. In particular BART came up with a train design that presented problems.

BART had A cars and B cars. A cars were cab cars with a sloping front. B cars were motorized trailer cars. A train would have an A car at each end and B cars in between. It looked neat.

However BART found out that trains have to be shortened in the off-peak and lengthened for the peak. So BART had to take trains into the yard, break the train, shunt some B cars to the side and then join up the train again. All in all an expensive arrangement.

The sons of BART, Washington DC and Atlanta, did not make this mistake, they had vertical ends to their cab cars and had two-car units, allowing the length of trains to be easily modified.

Ultimately BART looked at its off springs and concluded it needed a C car, one with a vertical front and a cab. By placing these cars in the middle, they could vary the train lengths in a simpler method.

While Washington DC and Atlanta learned from BART, VIA has not.

VIA's Design Concept

VIA and Bombardier are discussing designs for diesel multiple units in the corridor. The new Diesel Multiple Units (DMU) will have the following:

- A car** - A motorized streamlined cab car.
- B car** - A motorized internal car, no cab
- C car** - A trailer intermediate car.

A train could consist therefore of an A car, C car and B car (giving 3 cars) or one could add another C and A car. Articulation of cars has been ruled out, presumably for operational and maintenance flexibility.

The design is based on the present limited operation of VIA. Trains are manoeuvred around at Quebec City, Montreal and Windsor or any other station where an onward journey is impossible. The Montreal-Toronto trains are not turned around in Toronto, but continue with a different train number to Windsor. If cars would have to be added or taken off in Toronto, the affair becomes very complicated with switchers and lots of expense. Joining trains is cumbersome and is only done now by using a slave engine. (Trains 48 and 68 operate jointly as far as Brockville). It locks VIA into an expensive operation.

VIA Wants Full Front

VIA wants to have a full front so as to increase the visibility of the driver. In a DMU there is only one driver, so it is visibility that matters. The full front is not needed. There are two alternatives with a vertical front, one is to use the Flexliner (IC-3) front, one is to place the cab higher as is done in "Koploper" of the Netherlands Railways.



Flexliner (IC-3) front. The instrument panel is attached to the door which can be folded out of the way. The rubber surround can be inflated and forms an airtight seal between units.



Dutch Railways, "Koploper" (kop=head or front, loper=walker or walk through the head end). The cab is higher. This unit has doors that expose the connecting passage which is then pushed forward. That arrangement is unsuitable for the Canadian climate. An arrangement like the Flexliner but without the instrument panel of the driver would be better.

There used to be considerable interference from Transport Canada in the detailed design of passenger rail equipment. One result was the LRC equipment that VIA uses and Amtrak did not want. Transport Canada appears to have learned, but it is now the minister who has particular ideas about designs, including the sloping, non-vertical front. While "design" and "shape" of what is proposed may look attractive, function and cost effectiveness is more important when money is scarce. Particularly the operating costs will increase when coupling units or when having to turn trains around. My guess is that operating costs could easily increase by 20%.

A sloping front looks more sexy, particularly at the time of ribbon cutting. The trains however will have to be used by VIA for another 30 years or so after the ceremony.

- Powered axle
- o Non-powered axle



The VIA and Bombardier DMU design

c = cab



A better Passenger DMU design

f = freight



NB. More Cf cars could be used.

The Freight DMU that could be coupled to a Passenger DMU. The Freight DMU would have to be designed for North American buffing strengths.

For long haul trains, slave engines with passenger cars should be attached to premium freight trains of the operating freight railways.



The DMU the Minister Likes.

The manufacturer, Bombardier or any other manufacturer, would make whatever the client wants. Their world wide expertise would allow them to produce any design.

Undue Haste, Why?

The VIA Franchising project prompted by the Minister of Transport David Collette is being pushed forward with what seems to be undue haste. After ignoring advice from the House of Commons Standing Committee, from Transport 2000 and from his own civil servants, the Minister chose all-at-once franchising of VIA's network. Hambro's Bank (of England) that engineered British Rail privatisation has been chosen to manage the next phase. A Minister of Transport committee must report to the Minister by spring on feasible ways of proceeding. It would appear the Minister is heavily influenced by the views of a friend at Anglia Railways in England and that this is driving the process.

No public input appears to be planned or wanted.

Transport 2000 Quebec had a meeting in Montreal on December 4, 1998. Many at that meeting expressed opposition. Transport 2000 Canada has chosen not to oppose the process for now. We want to know more and to influence the course of events to soften the blow to communities and to consumers.

For the west it probably means a few tourist trains only in the peak season and there are good reasons to question the process and the intent..

Twenty Years LRT in Edmonton - Part 4

by J. J. Bakker

After construction, there were three more matters to deal with. First personnel had to be trained, second bus routes had to be changed and then there were the opening ceremonies.

Training of Personnel

Before starting a new LRT service it was necessary to train all personnel involved. Since there was no experience around, training staff and some drivers were sent to PATCO in Lindenwold, NJ.

PATCO is the transit operator between Philadelphia PA and Lindenwold NJ. PATCO is a subsidiary of the toll bridge authority. PATCO runs probably one of the most efficient commuter rail operations in North America. PATCO greatly helped with the preparation of rule books and teaching drivers in train operation.

PATCO has unmanned stations, all supervised with Closed Circuit Television Cameras. While Philadelphia was at that time full of graffiti, PATCO always had clean stations and clean cars. Philadelphia was cleaned up later by Mr. Gunn, who performed the same miracle later in New York.

Bus Route Changes

Public meetings were held, first to determine what the population felt was missing in the transit system and to explain what LRT would do. Then it was to the drawing boards, followed by another public meeting to explain what was proposed.

Of course it was not possible to duplicate LRT service with bus services. It would defeat the purpose of the LRT, which was to relieve road traffic. All express routes became feeder routes to the LRT. Critics argued that Edmonton Transit would lose passengers because of the extra transfer. Not so, passenger figures went up, because of the better and more frequent service. The one exception was a bus route that came along 82 Street and it went to the University. This route remained until the LRT extension to the University was opened.

Project Manager Left.

Don MacDonald had been the project manager since the start of the project. In the fall of 1977 he decided to take early retirement about six months before the project was completed. At that time most of the major contracts had been completed. One reason he wanted out, was the constant arguments with city commissioners, who wanted to add extras. Don would have none of that. His approach was that if it was not part of the original plan, you had to find the funds to do something extra. Don went to Portland, Oregon. First he acted as a consultant and later became project manager of their LRT project.



Ribbon Cutting Ceremonies at Central Station in 1978 by Dep. Premier Hugh Horner and Mayor Cec Purves.

New Transit Manager

The other managerial change that occurred in the fall of 1977 was the appointment of E.V. (Don) Miller as transit manager. Mr. Miller came from Calgary where he had been involved with the new transit garage. Calgary used most of its first capital grant for transit on this bus garage. Don Miller turned out to be an empire builder. The head office moved to downtown, he wanted transit as an equal and separate department, no longer one transportation department with good coordination. The result was that the administrative costs of transit escalated. For some reason he also believed he had a lot to do with Edmonton's LRT.

The Opening Ceremonies

The ribbon cutting was as usual a political affair. It was performed by Mayor Cec Purves, yes the very same man who originally voted against LRT and deputy

premier and Minister of Transportation Hugh Horner. Hugh Horner had been very unhappy with the capital grant that went directly to

transit. He made successful efforts that subsequent grants were under his control, which meant staff requirements had to increase at the city level so as to deal with the staff requirements at the provincial level. Project costs increased.

Anyway this pair cut the ribbon and also were present at the unveiling of the plaque with the last spike. The names on the spike were all those not directly involved with the LRT project, including Don Miller.

Ultimate Recognition

It was a bit galling that all those who had nursed the project along in a time of extreme inflation, were not recognized at the opening of the LRT line. After all this project opened ahead of schedule and was just under budget. A successful project appears to have many fathers, a failure of course would be an orphan.

The Association of Professional Engineers rectified this situation later and declared the Northeast LRT Line as the Engineering Project of 1978. A plaque was unveiled at Churchill Station and on it are the many engineers that were involved in this successful project.



Don MacDonald watches from the stairs the goings on at the opening ceremonies. Rudy Yakishyn, the construction engineer (wearing glasses) is with his back to the camera.



Unveiling of the Plaque of the Professional Engineers at Churchill Stn.

2001 Track and Field Championship in Edmonton.

New Stadium South of University

A new stadium is planned on the University Farm, half way between Southgate and the University. The other main sites are the Butterdome (a yellow coloured building housing physical education facilities at the University of Alberta) and the Commonwealth Stadium.

If anything this stadium should greatly increase traffic on the famous 116th Street. The solution would be public transport. The south LRT extension would provide an ideal link between the main sites and serve commuters, as well as University/Health Science bound trips

Is Transit Ready?

The endless delays of the South LRT extension from the University to Southgate is catching up with Edmonton. Edmonton has been awarded the 2001 Track and Field Championships, which is the third largest sporting event in the world. The event will be in August 2001.

Edmonton would have two years to design and build the line. Possible if there are no public hearing delays. However with the commitment towards bus transit by the present council, it would be highly unlikely. It does not pay to waste momentum and time.

Power Shortage

The Alberta Advantage is leading to a power shortage. Edmonton Power wants to expand its Rosedale Plant and gave notice to Edmonton Transit that its trolleybus substation had to be moved. It was feared that Edmonton Transit would use this eviction as an excuse to stop using trolleys altogether. Not so, Transportation has found \$ 2.5 million from other delayed projects, to move and upgrade the station.

Edmonton Transit may put in use the spare trolleybuses between Southgate and the Commonwealth Stadium to provide extra service during the games.

Diesel Light Rail for Ottawa



Talent Diesel Electric Light Rail Vehicle, made by Talbot (=Bombardier) in Germany for Norway. CP wants to lease three units. These units could also be used on Vancouver Island.

CP to Operate Light Rail

In 1996 the Dillon report recommended that the CP line from Breton Flats to Confederation Heights would be suitable for a Diesel Light Rail Operation.

Transport 2000 has since then been very active promoting this project further, with OC Transpo and other regional staff being more interested in more busways. The municipal elections last year was won by a group who want to see no more busways but do want diesel LRT.

Negotiations with CP Rail have led to an understanding with the region. CP wants to lease three Talent Diesel Light Rail Vehicles from Norway. Norway recently placed an order for 11 Talents.

The plan is for CP to operate and maintain these vehicles starting August, 2000, separately from OC Transpo.

Study Needs Dollars

Meanwhile another \$ 800,000 study has recommended a plan that would cost \$ 1.8 billion over 25 years. This plan would require a gas tax of more than 3 cents per litre from both the federal and provincial governments. The region has no authority to levy such a tax. The objective of the plan is to increase patronage by 73%.

The costs include new buses, transitway extensions (?), new route structures, a fare collection system based on credit-card-type "smart" cards, light rail and park-and-ride lots. One question one should ask is, can the poor afford a smart card when they have difficulty paying for a cash fare?

How About Management?

Lofty though these plans are, the 1995/1996 Dillon study found that 27% of buses ran too early and that the schedules were unreliable. A greater emphasis on reliability, on-time performance, coordinated schedules and an emphasis on timed connections and coordinated schedules would help immediately. However that would mean management and real work in the scheduling department. Ottawa Region is developing into a multi-centred metropolitan area. A Timed-Transfer system would be ideal. Suburban services can then be fed into transit centres.

CP Studies Link from Downtown Montreal to Dorval Airport.

CP is studying the feasibility of dedicating a track from the CP station just west of the Molson Centre to Dorval Airport. Stops would be at the Vendôme Metro Station and the existing Dorval Station. Total running time would be about 20 minutes. Service would be a train every 20 or 30 minutes. The service would also benefit commuters at least as far as Dorval, which has a park-and-ride lot and a VIA Station.

Other rail access being studied is a connection from the Deux Montagnes Line and from the VIA line for Hull/Ottawa.

Partners in the study are the Montreal Transport Agency and the Airport.

Costly Operations



Ever wonder why Passenger Rail is so expensive? This photo, taken in 1985, shows a switcher (with a caboose!) hooking up to a *self-propelled* Rail Diesel Car (RDC) at Edmonton South, to move the RDC to the yards. CP also performed this trick in Calgary. It paid for two switchers plus crews, all charged to VIA. No wonder that the service was cancelled as being too costly. For the operating freight railways a different attitude is needed when costing passenger rail.

The government should restrict access charges to agreed avoidable costs only, just like what Amtrak pays.

Toronto Pearson Airport Plans Show No Rail Link.

Pearson Airport keeps planning in splendid isolation. It still thinks that the airport is the end of the trip and gives no thought to a rail connection for either Toronto, Hamilton or Kitchener/London.

Meanwhile talk is resurfacing to resurrect Pickering airport. This at a time when money is scarce and Hamilton Airport under utilized.

Now the Minister of Transport comes from Toronto. Would this not be an ideal opportunity to show intermodal development, with a rail link to Union Station for both VIA and GO Transit. The other opportunity that still exists is to build a bus station over the top of the train shed at Union Station. Or is all this talk about intermodality, just that, talk.

Swiss Say Yes in Referendum

In a multiple question referendum, 63.5% of Swiss voters approved a 30.5 billion Franc 20 year programme, Rail 2000. This 22 billion US dollar project will adapt the rail system to high-speed networks in Europe. The line from Geneva into France will be rebuilt to reduce travel time to Paris from 3 hours 40 minutes to 3 hours.

15 billion Francs will be spent on a 57 km base-line tunnel under the Gothard Pass (this will be the world's longest tunnel) to open in 2005. Another tunnel, 34 km long, under the Loetschberg will open in 2010.

One goal of these tunnels is to incite truck transport companies to send their vehicles on intermodal trains. Meanwhile, Switzerland has accepted 40 tonne lorries in order to fit European norms, in place of the former 28 tonne limit trucks allowed in the past, but the intermodal solution will soften the blow. The truck toll will be \$ 360 per truck passing through Switzerland. The toll will become effective in 2005. Predictably, the World Truck Federation, the IRU, based in Geneva, has fought the intermodal scheme. The Swiss referendum decision will, however, help clear the air in Swiss mountain passes.

Agency rules CP Rail breached obligations

The Canadian Transportation Agency has ruled that CP Rail didn't live up to its commitments for transporting wheat two winters ago, when farmers lost an estimated \$65 million. The agency says severe weather was a factor, but it also says CP put other products ahead of wheat.

The decision clears the way for the Wheat Board to sue CP.

The European Union Wants Trucks To Pay.

The European Commission wants to introduce a pay-as-you-go system for freight traffic. The objective is that freight traffic must pay for the use of infrastructure such as roads, railways, bridges, tunnels and the like.

The new system would replace the many different charges such as tolls and vehicle license taxes in such a way that more freight will move by train and by ships. Europe has an extensive inland canal and river system.

Studies have shown that by a more efficient use of infrastructure a 100 billion dollars could be saved on environmental costs, traffic congestion and traffic accidents. Transportation experts from the various countries are now going to work out more details. The new proposals should be ready for implementation in the year 2001. [Radio Nederland International].

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New Dutch Government Changes Transport Policy.

The new Dutch Government, a coalition of Socialists and Conservatives, has decided to postpone the construction of a number of freeway links and some new railway lines. One of the railway sections the northeasterly portion of the freight only Betuwe line.

The government wants to divert the funds to public transit, in particular LRT.

If other authorities want to proceed with some of the freeway links eliminated from the construction program, then the national government will pay back the costs at a later time.

Some contractors have offered to construct now and be paid later.

Dirty Trucks Pay More

In Europe older trucks with so-called dirty diesel engines will face increased taxes after July 1, 2000. The taxes (called "eurovignet") will go up by Cdn\$500 to Cdn\$ 2,800. Trucks with modern "clean" engines will have no tax increase.

In addition trucks using the Brenner pass will pay of \$ 150 per truck per trip.

Edmonton High Level

The Edmonton Radial Railway Society had a successful season on the High Level Bridge this summer, carrying just under 30,000 passengers. Now the ERRS is building a spur off the CPR line into the north end of the old bus barns in Strathcona. A total of three units can then be used.

Lovers Rail

Lovers Rail in The Netherlands is a subsidiary of Virgin Rail in Britain. Is this a case of ethnic stereotyping? Anyway Lovers Rail is operating on one line, but is now down to two cars and two engines with few passengers. The main reason is that tickets are not transferable to the Dutch Railways.

Lovers Rail has permits to operate two more services, but has not exercised their option to do so. Lovers Rail wants to know whether the government is serious about competition on the railways. The government in turn says they will withdraw the permits if Lovers will not operate. There seems to be no love lost between all the parties involved.

Virgin Rail is also interested in franchises in Canada. What name will they use in Canada? Something stimulating like Via...?

Laidlaw to acquire Greyhound Lines Inc.

Laidlaw Inc. announced that it plans to merge with Greyhound Lines Inc., in a deal valued at about Cdn \$ 1 billion. The Canadian-run Laidlaw already runs Greyhound Lines Canada. With the acquisition of Greyhound Lines Inc., Laidlaw will become the largest inter-city passenger carrier in North America.

The purchase will bring the various Greyhounds together again. There are no plans for this kennel to produce another airline. Better connections to airports however would help passengers.