



Vancouver's order of Canadian built low floor trolleys began arriving on August 14th, 2006. The first arrivals will be used on routes serving the downtown core. [Photo: D. Cheung]



Moscow: 21st century styling is featured on the latest trolleybus from Russian manufacturer Trolza. Dubbed the "Megapolis", the modern low floor vehicle retails for about half the price of a new North American diesel bus. [Photo: K. Klimov]

New Trolleys now arriving in Vancouver!

Brand new trolley garage opens; Translink to invest \$8 million in extensions to streamline operations and reduce deadheading

A parade of trolleybuses, from old to new, wound its way through Downtown Vancouver on September 2nd, marking the opening of Vancouver's new \$37.3 million trolleybus garage and the transition to a new trolley fleet. The first trolleybus to run out of the new *Vancouver Transit Centre* was dispatched into service at 4:33 am earlier that day. The facility, which overlooks the Fraser River, will have room for 400 buses, including 172 diesels, 188 standard trolleys and 40 articulated trolleys. It is being touted as a major step in fulfilling Translink's mandate to preserve and improve the environment.

"The Vancouver Transit Centre will be a focal point for public transit services for the City of Vancouver and will provide state-of-the-art maintenance for those services," said Raymond Louie, a Vancouver councillor and TransLink director. "TransLink's strong commitment to preserving and improving one of North America's few remaining trolley systems harmonizes with our goals to exceed Kyoto greenhouse gas reduction targets, he said."

In addition to housing environmentally-friendly trolley buses, the Vancouver

Transit Centre features a recycled-water bus wash and an onsite wastewater treatment plant. The development has a certified LEED (Leadership in Energy and Environmental Design) building design.

The opening means a move from the Oakridge Transit Centre located at 41st and Oak that was home to the city's bus and trolley fleets for over 58 years.

To facilitate service and improve operational efficiencies on the trolley system, Translink is planning a major extension of trolley overhead lines along Marine Drive between Oak Street and Victoria Drive at a cost of \$8.8 million. The extension will result in a total savings of \$710,000 in deadheading costs annually, according to a June 15th report to the Translink Board of Directors.

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Vancouver (con't from page 1)

Meanwhile, Vancouver's new state-of-the-art low floor trolley fleet began arriving on September 14th. A number of the new blue, yellow and silver coaches can now be seen operating on downtown routes, primarily Routes 5 and 6. The vehicles will be arriving from the Winnipeg factory at a rate of about four to six per week until all 188 have been delivered. A prototype of the New Flyer/Kiepe 18 metre articulated trolleybus for evaluation is due to arrive soon.

The arrival of the new Vancouver trolleys leaves Edmonton as the only one of nine North American trolleybus cities without a commitment to a new trolley fleet. However, a new low floor trolleybus is expected to be tested in Edmonton for a period of one year, beginning early in 2007, according to information presented to Edmonton City Council's Transportation and Public Works Committee on October 10th. The vehicle will be leased from Vancouver.

[Sources: Translink, Coast Mountain Bus Company, International Trolleybus News, notes from the October 10, 2006 Edmonton City Council TPW Committee Meeting]

Modern, new trolleybuses hit the Streets of Moscow

Moscow's large trolleybus fleet got stronger in November with the addition of about 45 new vehicles, a mix of low floor and high floor designs. Included among them is the ultra-modern "Megapolis" (photo on page 1) by Russian manufacturer Trolza. Despite the additional vehicles, public transit in Moscow still suffers from overcrowding during peak periods. The transit authority reportedly still has no plans for larger, articulated trolleybuses.

Moscow operates the largest trolleybus system in the world, with around 1500 trolleybuses on the roads during weekday peak hours. [International Trolleybus News, R. C. DeArmond]



El Trolmerida, Venezuela's new zero-emission trolleybus BRT, pulls into a station on Line 1 on Opening Day, November 26, 2006. [Photo: E. Garde]

New Trolleybus System Opens in Merida, Venezuela

The long-awaited opening of the world's newest trolleybus system took place on November 26, 2006, as transit users in Merida, Venezuela were whisked quickly and quietly to their destinations aboard El Trolmerida, Venezuela's new electric BRT system. The system uses state-of-the-art articulated trolleybuses, operated on private rights-of-way, to connect stations, similar to an LRT installation. It is modeled after a similar system in Quito, Ecuador that has been tremendously successful in attracting riders to public transit.

The Merida system will be built in stages, and November 26th marked the opening of the first stage of Line 1. Two lines are planned in total, the first having a total route length of about 18 km, and the second 12 km.

About 45 Spanish-built Mercedes Benz articulated trolleybuses have been purchased by the Merida Transport Authority for service on the system, each with a capacity of 110 people.

A funicular line is also envisioned as part of the transit improvement package. The project has been valued at over US \$120 million. [International Trolleybus News, A. Morrison, E. Garde. R. C. DeArmond]

Did you know . . .

An October 10th 2006 administrative report maintained that the best way that Edmonton could show environmental stewardship was with the purchase of diesel buses. Surely there are better alternatives !

Local and National Transit News

Never an Idle Moment in St. Albert

St. Albert Transit recently changed its no-idle policy from only being in effect during certain months to year-round. Bus drivers will now be asked to shut off their engines if they are at a standstill for longer than four minutes, even in cold weather. They will only be permitted to keep their engines running if it is less than 10 degrees outside.

Since the no-idle policy was implemented in May, St. Albert Transit reports a reduction in total fuel consumption of about 1%. "That may not sound like much," says Transit Spokesperson Ian Sankey, "but for a transit system that uses about a million litres of diesel fuel a year, that works out to [a savings of] about 10,000 litres." At a diesel price of about 0.80 per litre, it represents a savings of \$8,000 and also cuts greenhouse emissions.

Edmonton Transit does not have an enforced no-idle policy, but they do train their operators in a Fuel Sense course designed to teach defensive driving techniques that save on fuel. "Cutting fuel use helps cities like Edmonton in many ways," says Len Dehek who teaches the Fuel Sense course for ETS. "Diesel fuel is gross. You see the haze around the city, and buses are a good part of that." [*St. Albert Gazette*, Nov. 1, 2006]

BC lands Federal Gas Tax Funds

\$307 million in federal gas tax funds will be pumped into transit improvements in the Greater Vancouver region between now and 2010 as a result of a September meeting of federal and BC provincial ministers. Translink, the Vancouver region's transportation authority, plans to use the first \$74 million of the funding to expand transit services through the purchase of 225 new buses. The purchase will include 50 more CNG buses, and 175 diesel buses equipped with particulate filters, according to Translink officials. Federal Transportation Minister Lawrence Cannon made the announcement in Vancouver on October 10th, characterizing the funding as an aggressive move "to help our cities address their infrastructure deficits." [*Metro*, Oct. 11, 2006; *The Buzzer*, Oct. 27, 2006]

Canadians Support Better Funding for Public Transit

A poll released December 13th by the Canadian Urban Transit Association shows transit users agree with the Federation of Canadian Municipalities call for more federal support for public transit. 73% of those with access to public transit believe the federal government is not doing enough to support local public transit infrastructure. The Federation has called for a national public transit plan supported by predictable, long-term funding. "Clean, safe, effective and efficient public transit is the only way to get Canadians out of their cars and cut the growing gridlock and pollution that chokes our cities", said FCM President and Guelph Councillor Gloria Kovach.

According to the Canadian Urban Transit Association, Canadian transit systems require large up-front investments that are beyond the reach of municipal governments. Between 2006 and 2010, at least \$20.7 billion in capital investments are needed to maintain and expand existing infrastructure. Only about \$16 billion is currently funded. Recent federal transit funding announcements, gas-tax sharing initiatives and the introduction of a transit user tax credit are all important, but are still not enough. Seven in ten of those surveyed by CUTA agree that public transit has not been made the priority that it ought to be. [CNW Telbec News Service, Dec. 14, 2006]

U. S. News Items

Hybrid buses flop in Elk Grove, California

Elk Grove, California was heralded as a city of maverick moves when it established its own transit system around 19 months ago. A hybrid powered commuter bus fleet was to be the heart of its system. But Elk Grove's path to clean-air transit seems to have taken a detour. Instead of cruising into the history books, the hybrid fleet has had trouble accelerating onto freeways. Overstressed electrical systems have led air conditioners to quit in triple digit temperatures, leading passengers to compare the hybrids to rolling hot houses.

"In the quest to be leading edge, you have to take chances on new technology, Mayor Rick Soares said. "We took that chance." "Hybrids may not be the way to go for commuter service," said etran manager Carlos Tobar. "Live and Learn," he concluded. Elk Grove City Council is now looking at CNG buses as a way to meet its goal for lower emission vehicles. [*Sacramento Bee*, August 8, 2006]

Expansion of Dayton Trolleybus System urged

On December 13th, City Council in Dayton, Ohio passed a resolution recommending the Greater Dayton Regional Transit Authority retain its trolleybus system as an integral part of the city's public transportation system. The resolution urges the GVRTA to explore the option of increasing the use of trolleybuses and promote the economic feasibility of its system. [Grassroots Dayton, www.grassrootsdayton.com]

Denver to get streetcars?

Transit planners in Denver, Colorado are considering single light-rail vehicles (streetcars) for a service to operate in the street, sharing lanes with automobiles, between the Civic Center and the 40th Street commuter rail station. The original plan to build a full light rail service in this corridor on reserved right of way has met with opposition because of its high cost, and the fact it would result in the tearing down of homes on the west side of Downing. The streetcar plan is less intrusive, and transit priority could be provided with special signals to provide for competitive commute times. [*Denver Post*, Oct. 12, 2006]

San Francisco Transit System to get Overhaul

Officials in San Francisco have launched the *Transit Effectiveness Project*, the first major overhaul of the city's transit system in over 20 years. Regular riders say the buses and trains are getting overcrowded as the economy improves, and studies have shown that Muni vehicles are moving through the streets at an ever-slower pace because of traffic congestion. The review will map out ways to improve service, attract more riders and increase efficiency. BRT and transit priority are the buzzwords, as transit is made more time competitive with automobile travel. Some streets may lose parking or a lane for car traffic to make room for bus-only corridors. But in the long run the idea is to make Muni more reliable and to get people to their destinations faster. The review is expected to be completed by the end of 2007. [*The San Francisco Chronicle*, August 11, 2006]

Low Oil warning light flickering Australian writer Elliot Fishman on Peak Oil



"Peak oil" describes the point at which maximum oil production is reached; it signals that half the world's oil reserves have been consumed. Despite occasional news of new oil discoveries, there is growing recognition, even from oil companies, that peak oil is upon us. Chevron makes the point in one of its advertisements: "One thing is clear: the era of easy oil is over." Australian Prime Minister John Howard alluded to it in 2005: "I'm afraid we're not going to go back to the days of having petrol below a dollar for quite some time, if at all." Even the most optimistic oil company assessment has peak oil hitting around 2030. "Whichever camp you belong to, planning for a low oil future begins now," warns Elliot Fishman of the Institute for Sensible Transport.

Oil has not run out, but it is getting harder and more expensive to produce. Dr Colin Campbell, a former petroleum geologist with BP, Texaco and Amoco, says of the oil production spike: "There will be panic. The market overreacts to even small imbalances. Prices are set to soar in the absence of spare capacity until demand is cut by recessions".

Urban planning academics Jago Dodson and Neil Sipe have conducted an assessment of rising fuel prices on Australian cities in their report "Oil Vulnerability in the Australian City". They found "Urban residents at the lower end of the socio-economic spectrum with the least financial capacity to absorb additional costs would likely be worst affected." They also conclude that car-dependent suburbs will become unviable and public transport networks will require rapid expansion. The current urban arrangement, where low-income communities are located in transport-poor outer suburbs, is unsustainable.

Earlier this year, Sweden announced it was formally beginning the process of eliminating oil from its economy. All levels of our government must begin the transition to a low oil future, including a massive boost to walking, cycling and public transport infrastructure — the most appropriate transport in an oil-scarce future. The earlier we begin the transition, the less painful it will be. [Condensed from article by Elliot Fishman in the *Energy Bulletin*, May 2006]



International Headlines

Electric Buses under Consideration in India

The November 13th 2006 edition of Indian newspaper "The Hindu" heralded the State Government's plan to introduce electric trolleybuses in three Indian cities as a move toward state-of-the-art transport. The plan is expected to be approved under the Jawaharlal Nehru National Urban Renewal program, and is aimed at reducing air and noise pollution in major urban centers. Mysore, Bangalore and Mangalore are the three cities named in the report, with Mysore first in line.

A project report is currently being prepared by the Indian Infrastructure Development Corporation Karnataka and Rail India. The State government is expected to call for global tenders to supply the buses and infrastructure. Initially, the trolleybuses are expected to cover a total route length of approximately 65 kms in Mysore, encompassing a number of the city's main arterial roads. The project report draws on experience with electric trolleybuses in Lyon, France.

The Union Government is expected to approve funding for the plan. According to Mr. Chelvarayaswamy of the Transport Department, the electric buses in Europe cost twice as much as conventional diesel buses, but operating them is relatively inexpensive as power consumption is low, and wear and tear is minimal since there are not as many moving parts in the vehicles. Chelvarayaswamy stated the Union Government would be requested to waive customs duty on importing the electric buses to India. [*The Hindu*, November 13, 2006]

Diesel engines cause 9,000 deaths in U.K each year

Scottish researchers have identified tiny soot particles from diesel exhausts - 30 times smaller than the width of a human hair - as the chief culprits in 9,000 fatal heart attacks in the UK annually.

The Edinburgh University team has worked out how the soot particles cross from the lungs into the blood stream, where they cause arteries to harden and clots to form. The findings are the hardest evidence yet of the deadly side-effects of diesel exhausts.

Scotland on Sunday revealed that proposed new European rules will compel manufacturers to fit filters to diesel engines from 2008, but even if the law is passed, the most dangerous particles will probably still escape into the environment. Professor Ken Donaldson, a toxicologist with the

research team, said: "These particles are so small they pass quite easily through face masks that people often wear to protect themselves from traffic fumes."

Duncan McLaren, chief executive of Friends of the Earth Scotland, said: "It now looks as if proposed anti-pollution legislation will not reflect the latest scientific discoveries about the true health impact of particulate pollution. [News.Scotsman.com, Aug. 13, 2006]

Ethiopian and Russian Entrepreneurs to establish Trolleybus Factory

One Ethiopian and two Russian companies signed an agreement November 14th to establish an electric trolleybus factory in Debre Markos, Ethiopia. The factory, which is to be jointly owned by the Russian Rus Afro-trol and VIP holding companies and the Ethiopian Afro Asian Trading Enterprise, will be the first of its kind in Africa. It will turn out 500 trolleybuses annually and create employment for 5,000 people.



Reprinted from *The Boston News*

General Manager Getachew Eshetu said that the factory would manufacture trolleybuses not only for Russia, but has plans to sell them to African countries as well. The electric buses are expected to reduce diesel consumption and environmental pollution, he said, alluding to the fact Ethiopia is endowed with an abundant potential for electric energy. [*Ethiopian Herald*, November 15, 2006]

Lublin to renew Trolley System

The city of Lublin, Poland recently moved to renew its overhead wire system and plans to roughly double the size of its network by 2013. Rider surveys showed that some parts of the system no longer provide adequately for the needs of commuters and need to be modified. The city plans to meet its need for new vehicles by purchasing trolleybus bodies and installing electric equipment at its own workshops. [International Trolleybus News, R. C. DeArmond]

Bratislava gets new Trolley Route

The Slovak capital of Bratislava inaugurated a new trolleybus route in September. Route 33 is a former diesel bus route of about 2.5 kms in length. A section of the route is operated without wire, where it crosses two sets of streetcar tracks. Six new Irisbus trolleybuses have been purchased to operate the new route, and they traverse the unwired section using a small diesel auxiliary engine. [International Trolleybus News, R. C. DeArmond]

Bucharest signs up for more Trolleys

Earlier this year, the city of Bucharest, Romania signed a contract for the purchase of 100 low floor trolleybuses. The 12 metre vehicles from Irisbus will, however, not come complete. Instead, the operator has elected to install the electrical equipment at the bus maintenance facility in Bucharest.

The new trolleybuses will be equipped with surveillance cameras. They have a projected useful life of about 15 years (compared to about 8-10 years for a similar diesel bus), and will begin arriving in 2007.

Bucharest has plans to extend its trolley system about 5 kms in the northern part of the city. [International Trolleybus News, R. C. DeArmond]