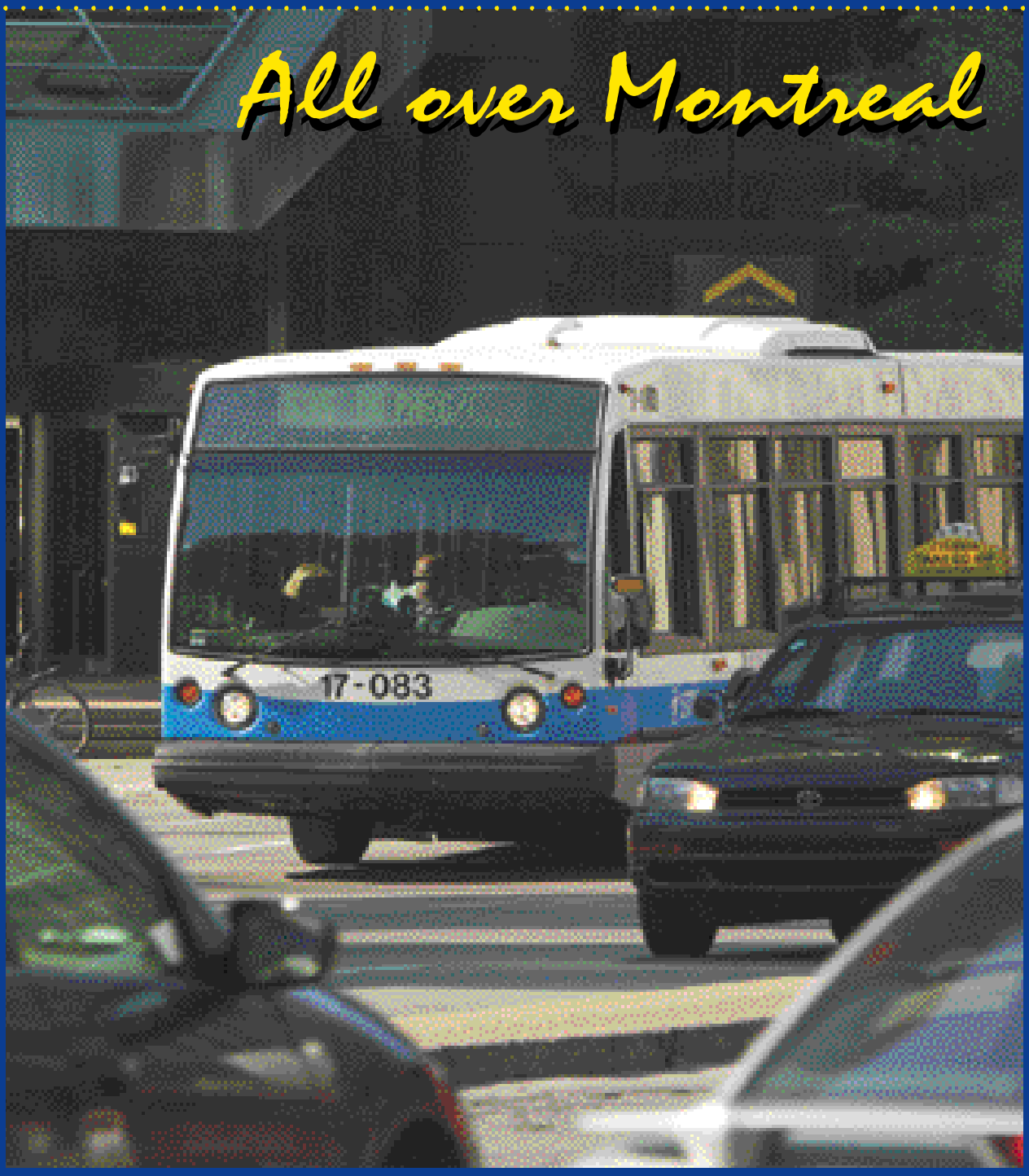
The bus network



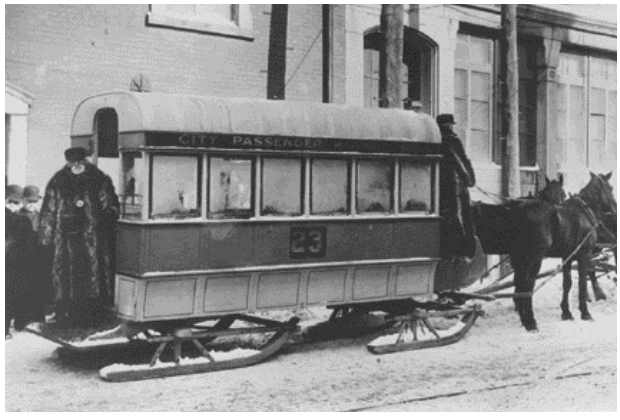
From tramways to low-floor buses

The STM's surface network enjoys a rich history dating back to the middle of the 19th century, more specifically to 1861. On November 27th of that year, Montreal's very first public transportation company, the Montreal City Passenger Railway Company, inaugurated a horse-drawn tramway service along the present Notre-Dame Street. Twenty-five years later, the company changed its name to the Montreal Street Railway Company. From 1892 to 1894, electric tramways gradually replaced the older, horse-drawn streetcars. By 1911, the now named Montreal Tramways Company had a monopoly on the city's public transportation.

The existence of numerous railway crossings along Bridge Street eventually resulted in the introduction of the first bus service in Montreal in 1919. Starting in 1927, buses gradually replaced tramways on certain routes. During the Second World War, ridership peaked and tramway lines were running at full capacity. However, during the years of prosperity that followed, personal automobiles were increasingly seen in the streets of Montreal. When the Montreal Transportation Commission (MTC) was created in 1951, it began working on a plan to replace tramways with buses throughout its network. On August 30, 1959, the last of Montreal's tramways was retired from service. The trolley buses that had been used in Montreal since 1937 disappeared, in turn, by 1966, only a few months before the inauguration of the métro. From that time forward, the bus was king of the road in Montreal.

Looking to standardize its fleet of vehicles, the MTC opted for the Canadian Car – Brill bus model. Then came the New Look, produced by General Motors from 1959 to 1983, and finally the Classic. Meanwhile, the bus network continued to evolve. In 1965, zone-based fares were abolished to allow for fare integration between the bus and métro systems. In 1974, the exact fare payment system was instituted, and buses were converted to their present blue and white colours. Six years later, transit service was expanded to cover the entire island of Montreal with the purchase of the Metropolitan Provincial Bus Company. From 1982 to 1995, the corporation operated the commuter train lines linking Montreal to Rigaud and Deux-Montagnes. In 1970, the MTC became the Montreal Urban Community Transit Commission (MUCTC), then, in 1985, the Société de transport de la Communauté urbaine de Montréal (STCUM), and finally, in 2002, the Société de transport de Montréal (STM).

The low-floor bus represented a major departure from its predecessors. Introduced in 1996, this vehicle enabled mobility-impaired transit users to access the bus directly without having to climb any steps. Produced by Nova Bus, the LFS bus also made it possible for persons in wheelchairs to access the regular bus network. From only five bus routes in 1998, the STM's bus network has grown to include today almost a hundred accessible routes. While the surface network vehicles have gone through many transformations since 1861, the corporation's mission has always remained the same: to provide the population of Montreal with timely, safe and courteous transit services.



Late 19th century horse-drawn tramway.
(STM Archives)

Cover page photo

An STM bus in downtown Montréal.
(STM)

The Rocket, Montreal's first electric tramway, was put into service on September 21, 1892.
(STM Archives)

The Montreal Tramways Company's first buses in 1919 were, in fact, trucks that were converted to buses at the company's shops.
(STM Archives)

The New Look is the most popular bus in STM history, with 43 years of regular service.
(STM Archives)

A retractable ramp has made the low-floor bus (LFS) accessible to persons in wheelchairs.
(Michel E. Tremblay - STM)

One of the Montreal Tramways Company's first trolley buses.
(STM Archives)

A major network for a major city

The STM's surface network consists of 165 daytime bus routes (145 on weekends) and 20 nighttime routes. In addition to regular bus service, it offers special services such as routes serving high schools and colleges, rapid-transit routes to métro stations (Métrobus), train stations (Trainbus) and downtown (Express), routes running along 45.5 km of reserved lanes (R-Bus) and, finally, public taxi services. The network's busiest bus lines are found on Parc Avenue, Côte-des-Neiges Road and on Pie-IX and Saint-Michel Boulevards. Nearly one million trips are provided every day throughout the system.

Service levels are determined by the results of surveys carried out among the local population, by samplings of passenger volume per route and by service standards set by the corporation's board of directors. STM standards establish the average number of passengers riding a bus per 15-minute period at no more than 65 during rush hour and 45 during off-peak hours, including Saturdays and Sundays. As for service intervals, company standards provide for a 30-minute maximum between buses, while the network's configuration complies with a 500-metre access standard (1 000 metres for nighttime service). In 2003 the bus network delivered 99.3% of planned service.

In the more difficult to reach sectors, particularly industrial areas, ridership potential is not always easy to evaluate. This has led the STM to develop a partnership concept that allows it to adapt its services to the sector's needs. Since 1999, some twenty of these partnership agreements have been concluded, generating over 4 000 daily trips. These new services can also be used by the general population and serve to increase the STM's visibility. If, following an initial trial period, ridership levels reach 25 passengers per vehicle per hour for six consecutive months, the STM can choose to integrate the special service into its regular network or replace the public taxi service with regular bus service.

Most bus routes include a stop at a métro station. A transfer system allows commuters to switch, without charge, from the bus to the métro, or vice-versa. On the bus, drivers issue transfers on request. In métro stations, transit users must obtain one at the start of their trip from dispensing machines located just beyond the turnstiles. In April 2002, the STM approved the financing for the purchase of a new automated fare sales and collection system for its bus and métro network. The new system will simplify the purchase and use of fares for customers, while improving the corporation's ability to collect fares and safeguard receipts. The system calls for the replacement of the current fare collection boxes with automated ones that can handle smart cards, magnetic cards and cash. Not only will the new boxes encode and register proof of payment, they will also issue transfers and record transactions.

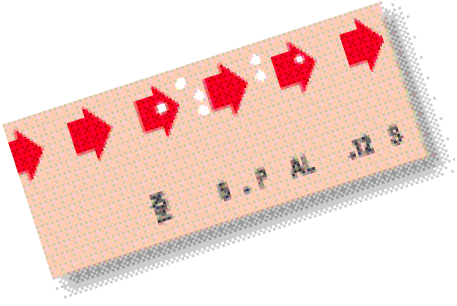
The STM's bus network is renowned for providing consistent and punctual service.
(Michel E. Tremblay - STM)

The STM's various bus services

Express **Métrobus** **R-Bus** **Trainbus** **Nighttime service**

A low-floor bus on Île Sainte-Hélène.
(Michel E. Tremblay - STM)

Transferring from the bus to the métro at Angrignon station.
(Michel E. Tremblay - STM)



A bus near the Olympic Stadium.
(Michel E. Tremblay - STM)

Client-oriented decisions

The needs of customers are well recognized. They require punctual, safe and courteous service. In 2003, close to 83% of the bus network's service ran on schedule. Moreover, the STM offers transit users several information tools designed to help them plan their trips more effectively. Without a doubt, the network map is by far the most useful of these, with over 750 000 copies printed each year. Planibus timetables, with over a million copies printed each January, March, June and August, provide schedule information for the various bus routes, while their poster counterparts, known as Infobus, are featured at certain bus stops, as well as inside métro stations. In addition to these tools, the STM's Web site (www.stm.info) features « Tous azimuts », a virtual guide that automatically generates trip information by taking into account a passenger's point of departure and destination, and the time and day of a given trip. AUTOBUS (288-6287), the automated telephone system, for its part, provides the times at which buses are scheduled at a specific stop. All other information can be obtained from the customer information service, STM-INFO, at 786-4636.

Of course, being able to wait for a bus in a safe location, sheltered from the wind and other bad weather, is an important consideration for transit users. Indeed, the STM receives between 100 and 200 requests for bus shelters every year. Each request is carefully studied in light of several criteria, including the number of passengers using that stop, the space available, and obtaining land-use rights from the City or property owner. In accordance with its exclusive contract with the STM, Viacom installs about forty new bus shelters throughout Montreal each year. Roughly a third of all bus stops (2 700 out of 8 300) are currently equipped with a bus shelter. Since September 2002, transit users have been able to consult the network map, as well as timetables for two bus routes for the stop, inside 1 000 Viacom bus shelters.

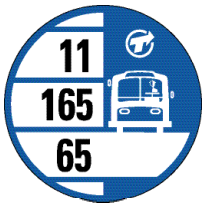
In the area of safety, it is worth mentioning the « Entre deux arrêts » service that enables women travelling alone at night to get off the bus between two regular stops if the bus driver feels he can stop the bus safely. This service was implemented by the STM in June 1996 in collaboration with the Comité d'action femmes et sécurité urbaine (CAFSU). As well, two seats in each bus are reserved for disabled passengers, the elderly, pregnant women, adults travelling with children or anyone having difficulty standing in a moving bus. Finally, thanks to the radio communication system installed on the buses, divisional clerks in the bus co-ordination centre (CCA) are able to ensure the safety of both drivers and passengers 24 hours a day. Should an incident occur, they represent the front line of intervention along with emergency services such as police, firemen and ambulance attendants.

Some 3 000 drivers serve as the public face of the corporation. The drivers greet passengers, collect fares, provide information and ensure customers' safe transportation along predetermined routes according to specific schedules. Indeed, interaction with passengers is a prime consideration throughout the training period for new drivers. All customer comments received by the STM are handled promptly by managers of the bus network. If customers so request, a manager will contact them to provide follow-up on their comment.

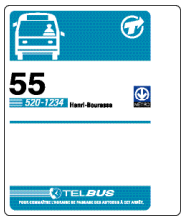
The STM's network map seen inside a Viacom bus shelter.
(Michel E. Tremblay - STM)

How bus stop panels have evolved over time

Before 1977



1977



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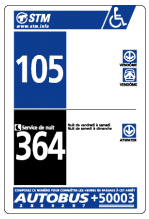


2003

Introduced in the fall of 2002, the « Caution » awareness campaign was noticed by more than two-thirds of surveyed transit users.

To improve services, the STM regularly carries out surveys among transit users.
(STM)

New STM bus drivers undergoing their training.
(Michel E. Tremblay - STM)

From the garage to the road

The STM manages a fleet of almost 1 600 city buses that have an average service life of 16 years. Of that number, some 1 300 are on the road during rush hour. The corporation purchases an average of 75 new low-floor buses (LFS) per year, each costing $420 000. STM buses consume 46 million litres of fuel and travel over 70 million kilometres annually. A full tank of diesel allows a bus to cover a distance of approximately 490 kilometres, depending on weather conditions. Recently acquired buses require an oil change every 10 000 kilometres. Front brakes have a service life of 80 000 kilometres, while rear brakes are changed after 40 000 kilometres. As for tires, they are guaranteed for 200 000 kilometres. Some buses are equipped with SCAD technology (Automated Data Collection System) to measure ridership and thus improve service planning.

Seven garages and one workshop share bus maintenance duties for the STM's regular network. Employees at the Mont-Royal garage (opened in 1936), and the Frontenac (1956), Saint-Denis (1958), Legendre (1973), Anjou (1983), Saint-Laurent (1985) and LaSalle (1995) garages handle all periodic maintenance, preventive maintenance checks, washing, cleaning and fuelling. Major repairs to engines, transmissions, brakes and bodywork are carried out at the Crémazie shop, built in 1946. This location was equipped with a fibreglass repair shop for LFS buses in 2000. In all, more than 800 employees and managers oversee vehicle maintenance.

The bus network handles more than 600 incidents daily that are likely to disrupt service. The clerks at the bus co-ordination centre (CCA) are informed in real time of any incident. If there is a disruption in service, the information is immediately transmitted to the AUTOBUS system, thus enabling customers to adjust their travel accordingly.

The bus network also relies on its first-level management staff to ensure service consistency and to support drivers in carrying out their duties. One hundred and twenty supervisors, assigned to seven transportation centres and reporting to the operational superintendents, manage both the bus routes and the drivers. Bus network supervisors also work closely with their métro counterparts, particularly when a métro disruption requires the rapid deployment of provisional bus service.

A bus network supervisor at the Crémazie métro station.
(Michel E. Tremblay - STM)

The LaSalle transportation centr
(STM)

Cleaning the inside of a low-floor bus.
(STM)

Tire change at the LaSalle transportation centr
(STM)

A bus undergoing repairs at the Crémazie shop.
(STM)

In 2002-2003, the STM took part in the BIOBUS project to demonstrate the efficiency of biodiesel as an alternative fuel.
(Michel E. Tremblay – STM)

Paratransit

The STM has been providing transportation for the disabled throughout its territory since April 1980. To do so, it relies on 93 minibuses, assigned to the Saint-Michel garage, which was opened in 1957. Thanks to contractual agreements with taxi leagues and owner-operator associations, paratransit users also have 550 regular taxis and 40 accessible vehicles at their disposal. The STM's paratransit centre handles roughly 1.3 million trips per year, or an average of 5 500 trips each weekday. Of that number, 70% are regularly scheduled trips, while the remaining 30% are occasional. The STM's minibuses handle about 40% of all trips, with the balance carried out by taxi.

Paratransit is a reservation-based, door-to-door public transportation service. Users must first be admitted in order to benefit from services. To be admitted, applicants must comply with two criteria: first, be disabled, which means having a significant and chronic disability that limits one's ability to carry out normal activities; and secondly, be mobility-impaired to a degree that warrants the use of paratransit services.

An admissions committee studies each submitted request. Committee members include current users representing the principal disability types and representatives from paratransit and from the Board of Health and Social Services. Members determine whether or not a person is admissible and set any conditions or restrictions for transportation. A person's admissibility status varies according to the person's degree of incapacity: general (no restrictions), temporary (limited time frame), seasonal (winter only) or partial (for certain trips only). The committee also determines the disabled user's escort requirements. Depending on the situation, having an escort may be optional, compulsory or refused. Admitted users receive an identification card and must pay the regular cost of public transportation, either full or reduced fares, as applicable.

Providing paratransit services is becoming particularly complex in light of ever-increasing demand. The numerous government programs aimed at fully integrating disabled citizens into mainstream society have created a constantly evolving environment. Within this context, getting an accurate picture of the demand level is a difficult task that requires constant monitoring. Paratransit's divisional clerks are the key to the processing of transportation requests. They are involved from the moment a call is received by the reservations centre until trip schedules and routes have been mapped out. ACCES V, a new reservations system, was put into service in 2003, enabling the STM to improve paratransit services and increase the number of trips while reducing their average cost. Thanks to this system, the handling of reservations, schedules, on-route follow-up and billing is managed more efficiently.

One of paratransit's first minibuses in the early 1980s.
(STM Archives)

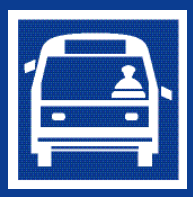
Some 60% of all paratransit trips are carried out by taxi.
(STM)

Some of the paratransit centre's divisional clerks.
(Michel E. Tremblay - STM)

A minibus currently in service.
(Michel E. Tremblay - STM)

Photos on back cover

1. *Former terminus used by the Montreal Tramways Company on Craig Street (Saint-Antoine) in 1932.*
   (STM Archives)
2. *A paratransit minibus.*
   (Michel E. Tremblay - STM)
3. *A low-floor bus in front of Habitat 67.*
   (Michel E. Tremblay - STM)
4. *Thanks to the STM's policy of equal opportunity employment, women and visible minorities hold an increasing number of positions within the corporation.*
   (Michel E. Tremblay - STM)



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