

# SYSTEMS FACTFILE

No. 94 Orléans,  
France

Since 2012, two tramlines with openings separated by 12 years have provided the main structure for the historic city's public transport network. Neil Pulling reports from the Loiret capital.



Preserved by the wire-free installation, the view of Rue Jeanne d'Arc and Sainte Croix cathedral.



## THE FLEET

There are 22 Alstom *Citadis 301* (nos. 39-60) and 21 *Citadis 302* (61-81), the numbering following the original tramway's system. The 22 communes provided names for the original fleet, displayed on the tram's short centre section.

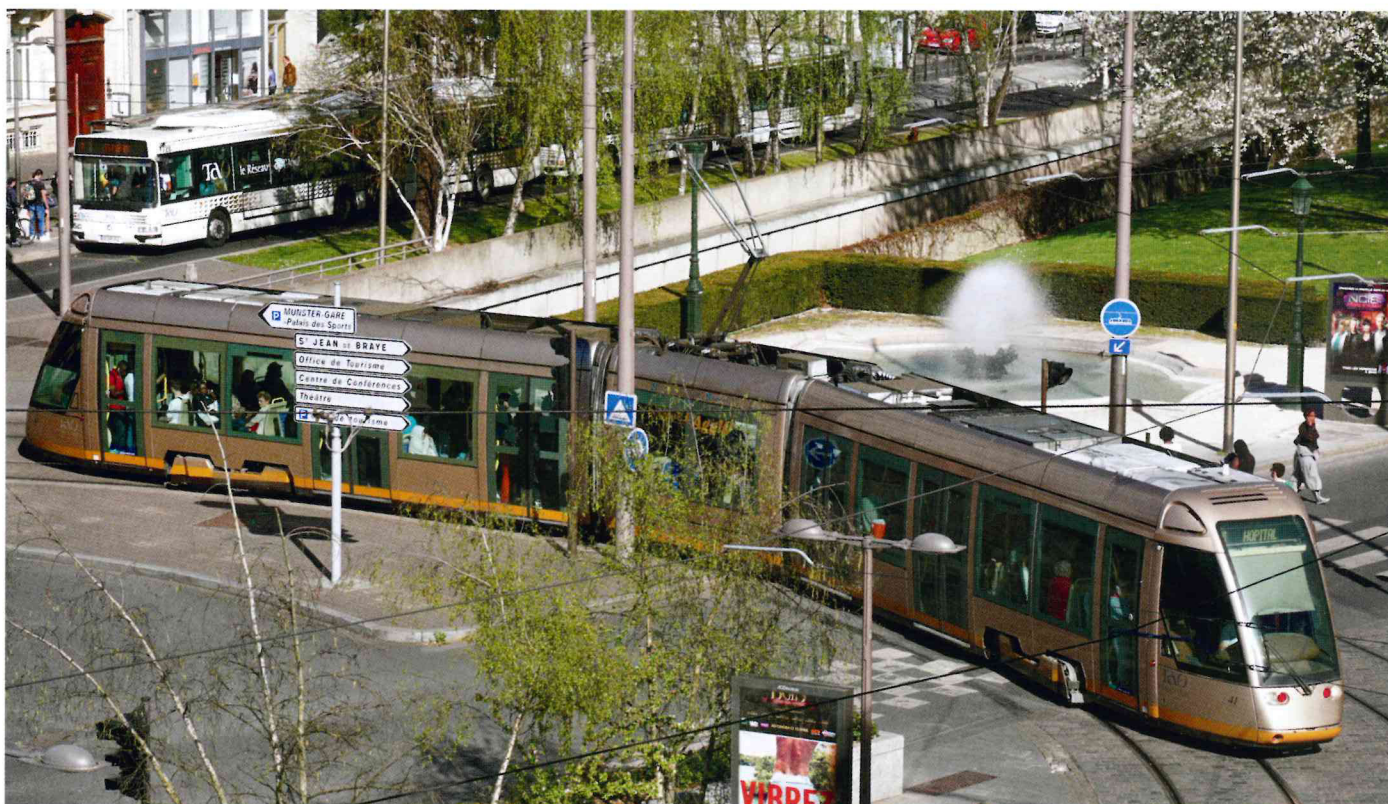
Aside from different cab profiles and APS capability there are other significant differences between the types, although both were assembled at Aytré, La Rochelle. Slightly narrower at 2.32m, the 30m long, three-section *301* (capacity 136 standing, 40 seated) has raised floors over the end bogies although all doors give level platform entry. The 2.4m-wide five-section *302*, two metres longer, is low-floor throughout. It has a different seat configuration and capacity (149 standing, 54 seated) and a more comprehensive passenger information system.

The two types have different internal colourschemes and externally the *302* trams also feature a weave design bordering the lower edge of the main gold livery.



◀ LEFT: Both line projects were used to upgrade the surroundings: between Antigna and Gare d'Orléans.

▼ BELOW: Most road traffic takes the underpass below the tramway outside the main station.



**"Orléans was comparatively early in the French tramway revival. Construction began in summer 1998, leading to a complete opening in November 2000."**



▲ ABOVE: Line A platforms at De Gaulle with line B tracks in the foreground.



▲ ABOVE: *Citadis 301* 59 eases past peak-time traffic on Pont George V.





**F**rom Nantes to St Etienne, tramways feature in several cities along the Loire and its tributaries. Orléans was comparatively early amongst the systems of the French tramway revival. Construction began in summer 1998 leading to a complete opening in November 2000 of what was then France's longest single line at 18km (11.3 miles). The city had an electrified tramway from 1899 until 1938, its coverage partially replicated by today's system, which became a two-line operation on 29 June 2012. Although with many direction changes *en route*, the lines run overall north-to-south for the earlier, now line A, with line B on an east-west axis.

Orléans is in the Loiret department and is capital of the Centre-Val de Loire region. The authority for the Orléans Agglomeration of 22 communes identified 273 878 inhabitants for January 2014, with 114 185 in Orléans commune. The stylised collective identity l'Agglo appears across public transport along with the brand TAO (transports de l'agglomération orléanaise). Replacing Veolia Transdev, restructuring the network and introducing a new identity, the present operator is Keolis Orléans Val de Loire. The current seven-year operating contract began in January 2012. Its corporate logo has a small presence on the overall gold 'Sable de Loire' tram livery and the white of the TAO buses which operate 33 lines. In the usual French manner, there are multiple connections with buses and trams.

Orléans is about 120km (75 miles) south-west of Paris to which it is connected by railway and motorway. It is an attractive place with strong historical associations as suggested by pavement markers bearing the city's Celtic, Roman and present names. With much in the centre geared to daytrippers and with the capital so accessible, for such a large place Orléans nevertheless feels like a dormitory town soon after the shops close. The tramway and buses feed commuter traffic flows for both Paris and Orléans via the two long distance railway stations. These are



about 1.7km (approx. 1.05 miles) apart and both are on line A.

The city's principal public transport hub, the rebuilt Gare d'Orléans terminus is at the northern edge of the city centre. In a gloomy ground level setting, the covered tramstop and adjacent bus terminus are incorporated near the concealed station frontage dominated by the Place d'Arc shopping complex. To give trams and pedestrians a freer transit through this bustling area, most road traffic is channelled below in a cutting. Les Aubrais station, in the northern commune of Fleury-les-Aubrais, is served by trains also using the main station and by those bypassing central Orléans on the 'classic line' to Tours, the latter now principally served by TGV Atlantique.

Broadly replicating the original tramway from Gare d'Orléans along the traffic-restricted shopping street Rue de la République, the line curves around the western end of Place du

▲ **TOP LEFT:** East-bound Citadis 302 74 passes the line B depot on Boulevard Marie Stuart.

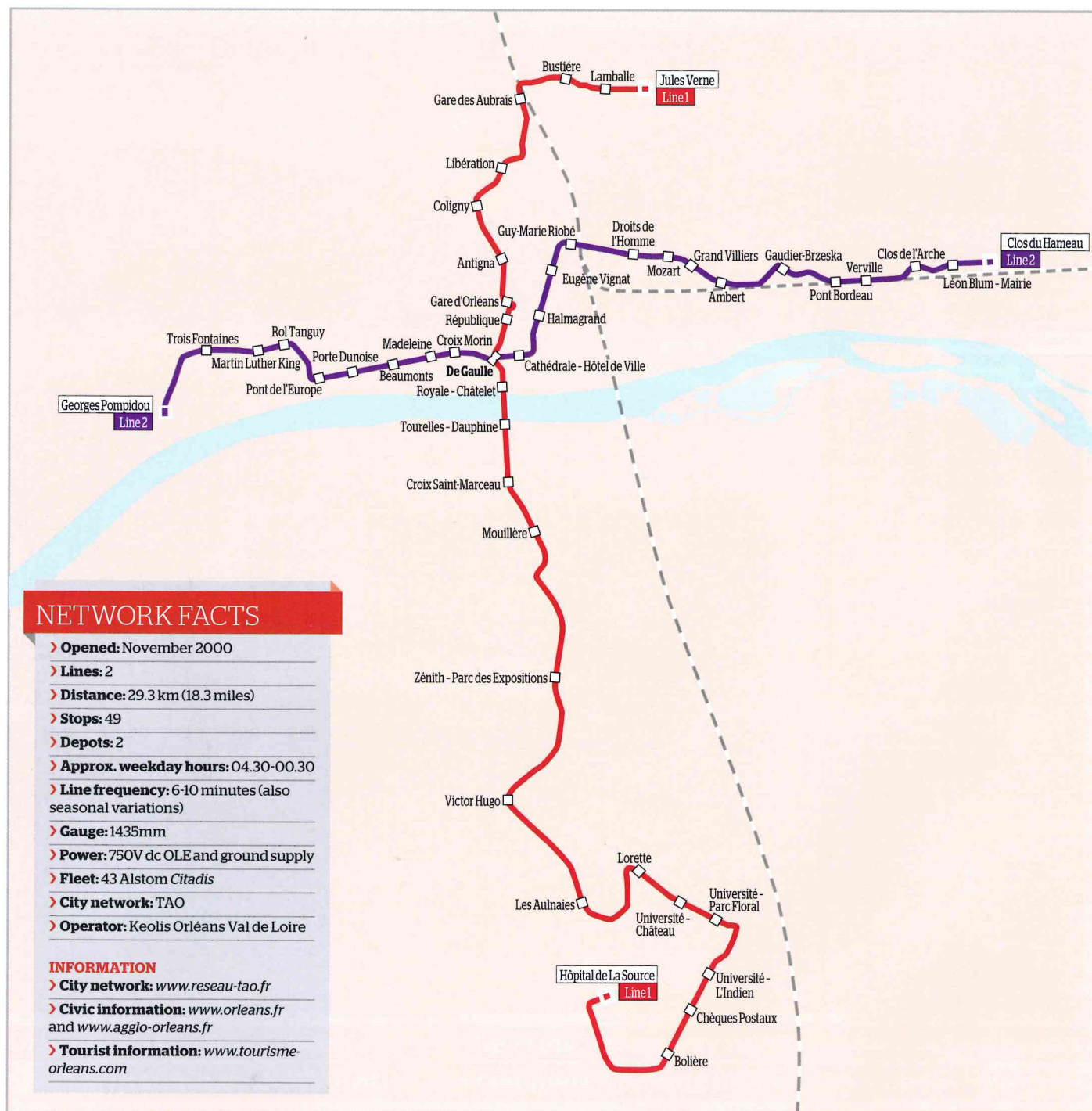
▲ **TOP RIGHT:** The regional hospital is the backdrop for arriving tram 48, soon to set back to the nearby line A depot.

▲ **ABOVE:** A mid-16th Century mansion once serving as the city hall, Hôtel Grosloir is on the APS section.

Martroi. This pedestrianised main square is dominated by a Joan of Arc equestrian statue, with the tramline closely fringed by pavement cafes. The stop on the narrow Rue Royale uses some road as the side platforms accessed from arcades, with other traffic being halted by barriers according to a tram's presence.

By far the greater part of line A lies south of the Loire, which forms a distinct boundary for the core area. Like the old system, line A crosses the Loire on the 325m bridge which has had several names including Pont Royal and Georges V since being built in the mid-18th Century. Like Gare d'Orléans, the bridge had roads reconfigured for the tramway, with space for the central paired tracks leaving just one pavement and a single lane in each direction for other traffic. Dispersal and restriction of road traffic in central Orléans included a new Loire crossing, Pont de l'Europe, which like the tramway also opened in 2000.





**“Line A broadly replicates the original tramway, along Rue de la République and curving around the western end of Place du Martroi.”**

◀ **LEFT:** Zénith-Parc des Expositions interchange, with APS-equipped Citadis 65 on the fully overhead supply line A.





Line B trams cross at Madeleine, a changeover point between overhead and ground power supply.



▲ ABOVE: Tram 59 draws away from Antigna stop in one of Orléans longer established residential areas.

➤ RIGHT: Overhead supply on line A arguably has little adverse visual impact on Place du Martroi.

▼ BELOW: Line A links the two main stations: tram 42 at SNCF Les Aubrais.





Line A is partly interurban in character in its southern reaches, including almost rural intrusions as near Orléans' other significant river, the Loiret. There are ballasted track sections and long distances between some stops before the tramway enters the park-like university and research district in La Source, a new town development begun in the 1960s. Line A's depot is immediately before Hôpital de la Source terminus. Not replicated on line B's stops are tall posts supporting analogue clocks, now seemingly inactive.

At opening, project leader SYSTRA identified the line as directly serving 21% of the agglomeration's population and 70% of those in education. The previous 50 minutes for end-to-end travel has been increased due to problems identified in early 2014 as premature track ageing. Subject to findings, restorative work may be needed on line A.

A turnkey project for Alstom identified during development as CLEO (Construire la ligne Est-Ouest / Build the East-West line) the 11.3km (seven miles) of line B is wholly north of the Loire. Directly serving 20% of the agglomeration's population, 90% of the track is in dedicated space. Work began in 2008 and incorporated several archaeological excavation sites. Alstom's automated Appitrac system was used for tracklaying.

The second line passes through the city centre, crossing line A on Place du General de Gaulle. The right-angle crossing with a spur for stock transfer near the De Gaulle platforms illustrates the system's key technical distinction: there is overhead line above line A yet none over line B. The crossing is on the line B section using Alstom's APS system. This is between Eugène Vignat and Madeleine, where trams switch between ground and overhead supply.

The main rationale for the approximate kilometre of wire-free route lies immediately to the east of De Gaulle, an unobstructed vista along Rue Jeanne D'Arc to Sainte Croix cathedral. In keeping with preserving the view, the platforms of Jeanne D'Arc stop are barely perceptible. The line turns sharply near the cathedral's west front to pass the elegant Hôtel Grosloot, once the town hall and of which there are similarly clear views.



TAO signs a two-minute walking connection between line B's Halmagrand and A's Gare d'Orléans, clearly a faster option than changing at De Gaulle as the two tramlines are very close here. They could seemingly have been connected here rather than via Rue Jeanne D'Arc. This would have obviated line B traversing the visually sensitive areas and thereby avoided expenditure on APS infrastructure and trams. Conversely this may have caused unacceptably intensive use of shared tracks. The tramway has also helped maintain the cathedral zone as a calm yet active city showpiece. With the second line came a new control centre; this, the main bus depot and line B's depot are along Boulevard Marie Stuart between Ambert and Gaudier Brzeska stops.

Line A is mainly operated by Citadis 302 trams, with four newer 302 models allocated in August 2010 to meet rising demand. Line B needs APS capability, therefore only

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uses Orléans' 302 type. There are six designated park-and-ride sites on each line, ten of them supervised and offering combined tickets. Of TAO's 30.6m passenger journeys in 2014, 65% were by tram, 28% on the high frequency 'lignes fortes' buses numbered 1-8 with the remainder on the other bus lines. Amongst network changes due by September 2015 is for line A to increase capacity to allow a five-minute interval. **TAUT**

➤ Download maps at [www.reseau-tao.fr](http://www.reseau-tao.fr)

▲ ABOVE: Southbound tram 57 arriving at Gare d'Orléans on 15 April 2015.

## ESSENTIAL FACTS

**Local travel:** Maps/schedules are available from the TAO information point near Gare d'Orléans tram stop or the main office, Agence Martroi, 4 rue de la Hallebarde, just north of De Gaulle stop. Tickets are sold from here or machines on tramway platforms. Rechargeable tickets are available for

regular users, but single-use 'paper' tickets are more relevant for visitors. Single journey *1 Voyage* tickets cost EUR1.50, while at EUR3.90 *Journée* tickets have day validity, with *Week-end* tickets covering Saturday and Sunday at the same price. Onboard ticket validation required.

**What is there to see?** Sainte Croix cathedral and Hôtel Grosloot old town hall are amongst the historic structures vying with Joan of Arc ('Maid of Orléans') links for attention. Although wide and picturesque, the Loire nevertheless seems as if in Orléans's backyard, with the city looking inward to focus around Place

du Martroi. Orléans is a popular base for touring Loire chateaux. Near the railway just north of Orléans is a long reminder of a mode intended for high-speed surface travel. Abandoned by 1977 as the TGV format developed, much of the 18km (11.2 miles) of elevated beam for the *Aérotrain* (hovertrain) remains.