

SYSTEMS FACTFILE

No. 96 Tours, France

Neil Pulling explores the French tramway central to a policy of reducing the appeal of car use by providing alternatives - and which features a flamboyant interpretation of Alstom's *Citadis*.



Around 240km (150 miles) south-west of Paris, Tours is the capital of Indre-et-Loire department and the Centre-Val de Loire region's largest city. France's longest river is part of Tours' identity, but like many Loire settlements, the centre evolved at a respectful distance from its fragmented flood-prone course. The grandeur of the Hôtel de Ville overlooking Place Jean Jaurès nevertheless leaves little doubt of where that centre is.

It is a measure of the importance accorded to the tramway that opened on 31 August 2013 that it was routed along the spine-like main thoroughfare and past the enormous city hall. As with Strasbourg or Le Havre, areas of Tours within the system's

▲ **ABOVE:** Old and new symbols - Tour's Hôtel de Ville and the city's version of Alstom's *Citadis* 402 at Place Jean Jaurès.

► **RIGHT:** The new tramway has been added to Pont Wilson's eventful history as the city's central Loire crossing.



All pictures by Neil Pulling.



“A focus of industry attention when first opened, the Tours system is distinguished by striking design.”

THE FLEET

All services are operated by 21 air-conditioned, bi-directional Alstom trams with low floors throughout; they are numbered from 051, the old system having reached tram 50. Supplied as part of a EUR73m contract agreed in autumn 2010, the Fil Bleu *Citadis 402* are 43m long, 2.4m wide and have capacity for 204 standing and 76 seated.

Using components from eight Alstom plants, they were assembled at Reichshoffen in Alsace. The first tram was tested at Alstom's La Rochelle facility from where it was delivered to Tours in

September 2012. All 21 were received by June 2013 and 18 are needed at peak times. Damaged in the collision by an automobile driver suicide between the platforms at Place Jean Jaurès in April 2014, 057 has since returned to traffic.

The combined depot and network control centre was completed in September 2012. It is partially in village surroundings at the end of non-revenue track extending beyond the northern terminus, Vaucanson. A spacious site, it could be modified to provide for a second line.



▲ **TOP:** Part of the transformation of central Tours, the gardens at Place Jean Jaurès.

◀ **LEFT:** One of the busier non-central stops, Liberté displays the system's black and white platform markers.

◀ **LEFT:** Leading north from Place Jean Jaurès towards the Loire, Rue Nationale is the main shopping street.

▶ **RIGHT:** Mainly together, the tracks diverge slightly for a short section in the university district: 071 on Allée Ferdinand de Lesseps.



catchment will seem very different for those whose previous visit was before trams returned to the streets.

Styled as Tour(s) Plus, the agglomération has grown to incorporate 22 communes. It registered 296 506 residents on 1 January 2015, of which 138 323 were in Tours commune. The new tramway was created under the agglomération's former transport body SITCAT, its role since assimilated within Tour(s) Plus. With preliminary works begun in summer 2010, the formal declaration that enabled the Cité Tram consortium directed by SYSTRA to proceed was signed in December 2010. Tours' line A is 14.8km (9.3 miles) long with services scheduled to take 47 minutes between termini.

The original system opened in 1877 but closures began in 1932. World War Two disruption including a split network and the relative ease of replacement by trolleybuses (used until 1968) saw Tours follow the national trend, closing its tramway by autumn 1949. Fil Bleu (blue thread or wire) – rendered as *filbleu* – was the identity adopted for the urban bus network in 1992. Unlike several French cities that changed their public transport identity when opening a new tramway, Tours added trams to the brand.

The urban network is operated by a local subsidiary of the Keolis Group, while the regional bus service titled Touraine Fil Vert is run by Transdev. Tours' current urban transport plan has a prominent policy of giving priority to transport alternatives other than 'individual motorised mobility', with 'ambitious but realistic targets for changing modal shares.' It projects reducing urban journeys by car from 55% (2008) to 47% (2023) and raising combined bus and tram use from 8% to 13% for the same timescale. Cycling is also favoured for growth.

A focus of significant industry attention when first opened, Tours' system is distinguished by striking design at the lineside and on vehicles. Previously engaged on tram projects in Paris, Algeria, Le Mans and Angers, locally-based RCP Design Global in concert with other designers formulated many of the system's features. This extended to the surroundings in a broad strip either side of the double-track installation.

Although many French cities focus heavily on urban integration for their new tramway schemes, Tours has taken this to a new level with close co-operation between the main project partners and leading urban design and architectural practice Richez_Associés (familiar for its work on other tramway projects in Le Mans, Reims, Brest, Orléans and Casablanca).

To preserve or improve vistas in the central district and on the Loire crossing, Tours installed the Alstom APS ground-supply system, the fifth such application in France. The single APS section is 1.8km (1.1 miles) long between Place Choiseul and Gare de Tours, these stops being the changeover points for power supply. It thereby covers Place Jean Jaurès, the main shopping street, Rue Nationale, also the Loire's Pont Wilson, named after the First World War American president. A designated national monument, this bridge is the direct connection between the centre and suburbs that begin at the river's northern embankment near Place Choiseul.

Used by the first-generation tram system, this 434m multi-arched bridge was completed in 1778. It was breached in war and a flood prompted partial collapse in 1978. The latest significant event was rebuilding for new tracks to be placed on the upstream side of a single unidirectional road lane. As in most other



▲ ABOVE: With shared road space, tram platforms are staggered and face their bus counterparts at Jean Jaurès.



▲ ABOVE: Heading south from Gare SNCF, where trams change from APS to overhead supply.

places along line A, there is dedicated space for pedestrians and cyclists.

Ready for growing patronage, the system opened with 43m platforms and, rather than later lengthening, seven-section trams. Both feature black and white banding that for some may recall World War Two's D-Day recognition stripes; they are used here

▼ BELOW: Part of the tramway project, the new bridge over the Cher.



NETWORK FACTS

- › **Opened:** August 2013
- › **Lines:** 1
- › **Stops:** 29
- › **Distance:** 14.8km (9.3 miles)
- › **Depots:** 1
- › **Approx. weekday hours:** 05.30-00.30
- › **Main frequency:** 6-8 minutes
- › **Gauge:** 1435mm
- › **Power:** 750V dc overhead and APS ground supply
- › **Fleet:** 21 Alstom Citadis 402
- › **Transport authority:** Tour(s) Plus
- › **City network:** Fil Bleu
- › **Operator:** Keolis Tours

INFORMATION

- › **City network:** www.filbleu.fr (essentials also in English)
- › **Civic information:** www.tours.fr
- › **Agglomeration:** www.agglo-tours.fr
- › **Tourist information:** www.tours-tourisme.fr

Tours line A

- P+R Park-and-ride
- Bicycle parking



“Ready for growing patronage, the system opened with 43m platforms and, rather than later lengthening, seven-section trams.”



Richez Associés/Cyrille Dubreuil



◀ LEFT: Tram 066 descends to Pont Volant, here part of the system's 6km (3.7 miles) plus of planted track.



▶ RIGHT: White at the front and red at the back, cab-end markers leave little doubt about a tram's presence and directional intention: 051 at Anatole France.



▲ **ABOVE AND INSET:** Tours' interior interpretation of the *Citadis* is filled with clever design details.

to denote positioning of the tram's double doors and their platform alignment. The banding also appears on tall posts at stops and in parking sites. It is a motif echoed by the vertical parallel strips of LED lighting on the tram ends, white for the leading end and red to denote the rear.

The tram's exterior features a matt chrome coating that gives a hazy reflection of its surroundings designed to reflect the changing environments along the route. Interior lighting varies according to ambient conditions using what Alstom calls 'sensorial design', again to act as a visual indicator of the districts as the tram passes through. There are multiple seating types and much use is made of wood finishes, including for partial partitions; yet perhaps most unusual is the asymmetric interior colouring. Overhead screens provide passenger information, supplemented by custom-created audio by musician and sound designer Louis Dandrel; sound that in places links to the location, like the singing tone for Christ Roi stop, named after the nearby church.

Although the city centre is level, there is more variation elsewhere, exemplified by the long rise from the

► **TOP RIGHT:** Tram O61 draws into Place Choiseul, the northern overhead/APS changeover point.

► **RIGHT:** Room to grow: the spacious maintenance centre beyond Vaucanson terminus.



northern Loire bank. Contributing to reduced car dependency, line A links outlying traffic generators and the central district and this underlies the zig-zagging within a dominant north-south axis.

Educational centres are a significant influence on demand patterns. There are large schools at each end of the line and a university campus around the stops Fac 2 Lions and L'Heure Tranquille, the latter also a modern shopping and entertainment centre. Housing concentrations are scattered along the line, one such being unusually near the centre around Palais de Sport and Sanitas. In the north, line A serves the recently developed Europe district centred around Beffroi stop. To include the large southern commune Joué-lès-Tours, a new 225m long bridge was built over the Cher river, a substantial Loire tributary. The tramway bridge is also used by buses and has pedestrian and cycle paths. With unusual local railway arrangements, the tramway's main interchanges are with the 27 regular Filbleu bus routes.

The LGV Atlantique high-speed line opening in 1990 altered the service between Tours and Paris. In the capital, the principal station for Tours changed from Austerlitz to Montparnasse. Most TGV trains

on the Bordeaux – Paris route do not use the grand city terminus, Gare de Tours, instead calling at the through-station Saint Pierre des Corps in the southern suburbs. City connections are made by the rail shuttle or other trains using both stations. The main bus terminal (gare routière) is directly in front of Gare de Tours, with the tram stop a few paces away along the city side of the station. Joue-les-Tours station in the south-west is near the tramway at République, but Gare de Tours is the only realistic tram to train interchange.

Five of the inclusive-ticketed Fil Bleu park-and-ride sites (parking relais) are by the tramway. The other two are on the line 2 Tempo bus route. This and the tram are classified as having the network's highest service level with a 6-10 minute frequency. A prospective tramline B, also mainly north-south, would likely serve the CHU Trousseau regional hospital in the south-east, replacing at least part of bus line 2's coverage.

A year after opening, the tramway was already intermittently reaching its 55 000 daily target ridership and peak weekday usage has been identified as being between 16.00 and 19.00. Currently the tramway and bus lines 2, 3, 4 and 5 account for around 75% of passengers carried by Fil Bleu. **TAUT**

ESSENTIAL FACTS

Local travel: For maps and timetables, visit the filbleu office between Gare de Tours and Jean Jaurès at 9 Rue Michelet. Single journey with one-hour validity including transfers from EUR1.50; lower pro-rata for the multi-trip variants. The '1 Journee' day ticket is EUR3.70. Ticket machines that can also recharge tickets are set in the tall red column at stops. Onboard validation required.

What is there to see? The spectacular Saint Gatien de Tours cathedral, dating from the 12th Century and completed in 1547. The main tourist draw is the Old Town with Place Plumereau at its centre – walk west from line A between Anatole France and Nationale, or use filbleu line C2 operated by electric Gruau Microbuses. Tours is convenient for the Touraine wine area and Loire Valley UNESCO World Heritage Site, famed for chateaux-like Amboise (20 minutes by train) and Chinon (50 minutes).