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மாதலை MATALE

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Welcome

Welcome to another edition of Railtalk Xtra, the monthly magazine that predominantly features railways outside the UK.

Well as I write this, I'm just back from touring mainland Europe and the first thing that struck me over there at the moment is the sheer numbers of new locos and units appearing in all the countries I visited, a great shame for us enthusiasts but I think that the passengers must be really feeling the benefit of more modern and air conditioned stock to travel in. However one thing that did amuse me was the fact that when a passenger now boards elderly stock with manual opening doors, it amazes me that they have no clue as to get off again with many just stood looking at the doors as if they will open automatically.

Also whilst on my travels and perhaps because it was February, but I did notice that many services in many countries were running almost empty, and the Austrian Railjet services seemed to be particularly quiet.

In the news this month, in Switzerland BLS has agreed to sell a 45% stake in its freight subsidiary BLS Cargo to SNCF Logistics, the French national railway's freight business. Italian national railway FS Group has completed the first step in its plan to establish a major presence in the UK rail market, with the closing of Trenitalia UK's acquisition of c2c from National Express Group and Mercitalia Rail

Content

- Pg 2 - Welcome
- Pg 4 - Pictures
- Pg 50 - World News
- Pg 54 - From the UK
- Pg 57 - From the Archives

Submissions & Contributions

Railtalk Magazine Xtra, a Magazine written by the Enthusiast for the Enthusiast. So why not join the team. We are always looking for talented Photographers and Writers to join us at Railtalk. Be it though Pictorial Submissions or via a written article featuring an event or Railtour, we greatly appreciate any contributions to the magazine however big or small.

Photographic Contributions

All Photographic contributions should to be sent to us via email, post or via the members section page on our website. Contact addresses are provided to the right or on the next page.

All images ideally should be provided at a resolution of at least 2048px x 1536px at 150dpi.

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Front Cover

On January 10th, Class M7 Bo-Bo diesel-electric locomotive No. 806 built by Brush Traction and equipped with a EMD 8-645E engine waits departure from Matule with train 2020, 13:55 to Kandy. *David Pollock*

This Page

Tatranská Lomnica station at the foot of the High Tatra Mountains. The Tatra Electric Railway station is on the left with the standard gauge line to Poprad Tatry on the right, January 13th. *Tim Farmer*

Next Page

On February 2nd, Class 749.262 stands at Řetenice with a 2 day NFP railtour around northern Czech Republic. *Mark Pichowicz*



company TX Logistik has expanded its freight network with the launch of a service between the DUSS terminal at Leipzig in Germany and the Quadrante Europa Terminal in Verona in Italy.

Back in the UK and I know it is a subject that I have mentioned before, but I travelled on my first refurbished Eurostar E300 this month, and the transformation was superb proving that there is still some life left in these beasts. Lets hope that some more get the same treatment as I personally think that they are far too good to scrap, especially with the news this month that the ill-fated Fyra units that were originally going to work for SNCB are returning to traffic with Trenitalia. Note to Trenitalia: Get along to the Eurostar HQ and buy redundant e300s instead, at least they are a tried and proven product.

This months 'From the UK' is the recent East Lancashire Railway's 'Spring Diesel Gala' and as usual for that area of the UK, the rain made an appearance!

As always thanks for all the excellent photos, please keep sending them in, and remember if you are going on holiday, don't forget to take your camera.

David
Editor

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David Pollock, Andy Pratt, Railwaymedia, Alan Rigby, Neil Scarlett, John Sloane, Stephen Simpson, Laurence Sly, Stewart Smith, Steamsounds, Steve Stepney, Mark Torkington, Andrew Wilson and Erik de Zeeuw.



 Austria

▶ OBB Taurus Class 1116.105 speeds through St. Valentin on February 25th with a rake of tanks, heading for Linz. *Class47*

▶ Hodlmayr liveried Class 1216.954 passes through St. Polten on February 25th with a rake of tanks. *Class47*

▶ Der Amerikaner (The American). A Type 45 2-motor streetcar built in 1939 for the 3rd Avenue Transit System in New York City. When NYC discontinued streetcars some were brought to Vienna in 1949 to relieve the shortage of trams. Because of its excessive width (2.5m) they were restricted to certain routes. They ran in Vienna until 1969. Photographed at the Vienna Tram Museum on February 12th. *Keith Chapman*







Siemens Eurosprinter electric loco (ES 64 U), Class 1016.014 stands at Wien Mitte station to push the City Airport Train to the airport on February 13th. *Keith Chapman*

Vienna tram Type TH No.6503 Hilfstriebwagen (Help Vehicle) at the Vienna tram museum, located in the former Erdberg tram depot, on February 12th. *Keith Chapman*

Vienna tram Type E1 No. 4866, a 2-section articulated vehicle with 6 axles, built by SGP between 1966-76. Photographed at Schwedenplatz on February 11th. *Keith Chapman*











Chinese built DF7-GC No. 52574 heads out of Havana on January 15th with a maintenance train. *Tim Blazey*

On January 15th, Chinese built DF7-GC No. 52581 heads out of Havana with a carriage transfer from La Coubre to Estacion Central. This loco would later propel the coach on the upper level. *Tim Blazey*

DMU No. 2204 backs onto the rest of its train in the terminus station of 19 de Noviembre on January 15th. *Tim Blazey*













“Bardotkas” around Prague again

Due to a temporary shortage of Class 742 locomotives, Class 749.019 has moved from Czech Budejovice to Prague. These locomotives, known by the nickname “Bardotka” are very famous with railway fans. Moreover Class 749.019 carries the original painting scheme, and is not in ČD Cargo corporate livery.

Class 749.019 locomotive first appeared in Prague on February 6th when it was deployed to operate a train to Jílové near Prague and other trains from the CD Cargo hub in Prague.

From February 9th it was used on a number of services operating in the Beroun area. It was possible to meet with her for example on trains to Nuce, or Neumětely and Hořovice. The loco also worked coal trains to Pribram (photo left) and empty grain cars (photo right) seen passing by the station at Jince, to be loaded in Milin.

Photos: ©CD Cargo



On February 23rd, Class 742.167-0 is seen shunting stock at Plzen hl.n. *Class47*



Transportation of coal Increased year on year

In January 2017, CD Cargo has transported nearly 770,000 tons of brown coal for its customers, which was a significant year-over-year increase. Among the clients of ČD Cargo in this segment are not only large power plants, but coal wholesalers who provide distribution of WHO grade

coal to end Customers. CD Cargo has transported higher volumes despite the difficult climatic conditions in which there was a freezing of coal in cars. This obviously complicated and prolonged unloading and negatively affected circulation of cars. Photos: ©CD Cargo

▶ OBB Class 1216.230 stands at Praha hl.n. on February 23rd, having arrived with a Railjet service from Graz Hbf. *Class47*





Alstom's first Coradia Liners run on the Paris-Troyes-Belfort Intercity line

The first Coradia Liner V160 trains has entered commercial service, welcoming the first passengers on the Paris-Troyes-Belfort Intercity line. This new generation of main line trains has been developed from Alstom's Coradia Polyvalent platform. Coradia Liner supports the policy of renewing Corail trains on Intercity lines.

In October 2013, SNCF ordered 34 Coradia Liners, the latest generation of Alstom main line trains, for approximately 350 million euros. This new material will mainly be deployed on non-electrified and partially electrified lines: Paris-Troyes-Belfort, Quimper-Nantes-Bordeaux-Toulouse, Paris-Amiens-Boulogne, Nantes-Lyon and Bordeaux-Lyon.

"Intercity passengers will benefit from new trains that are accessible, comfortable and very reliable. Coradia Liner has been developed from the Coradia Polyvalent platform which benefits from the return on experience of the 178 trains already delivered thanks to the excellent cooperation between the SNCF and Alstom teams," said Jean-Baptiste Eyméoud, President of Alstom in France.

Coradia Liner V160 comes in two lengths (72 and 110 metres) and two types of engines (electric or bimodal diesel/electric). These trains can accommodate up to 269 passengers, and run at 160 km/h.

Benefiting from the proven core technologies of the Coradia Polyvalent trains, Coradia Liner meets SNCF's requirements perfectly in terms of performance, comfort and passenger service.

The low floor throughout facilitates access to the train, in particular for passengers with reduced mobility; on-board movement is more fluid, with spacious passenger zones. New reclining seats are equipped with fully upholstered armrests and equipped with electric sockets and a coat hanger. The specifically designed floor covering softens the ambient noise. Finally, large bay windows, partitioned areas and soft LED lighting enhance passengers' feelings of comfort. The on-board service agents benefit from their own dedicated area.

The design of this new main line train allows the operator to offer a large number of on-board services to passengers (meals brought to your seat...). Innovative technical solutions allow Coradia Liner to reduce travel times: wide doors and platforms optimise passenger circulation. Acceleration and braking capacities have been improved thanks to distributed power throughout the entire train. Lighter, the train's energy consumption will be much lower than the previous generation of main line trains. The train's architecture has been specifically designed for ease of maintenance. Coradia Liner complies with current European standards and can be used on all tracks of the conventional network.

The design and manufacture of the Coradia trains secure over 4000 jobs in France with Alstom and its suppliers. Six of the twelve sites of Alstom in France are involved: Reichshoffen for the design and assembly, Ornans for the motors, Le Creusot for the bogies, Tarbes for the traction chains, Villeurbanne for the on-board electronics and Saint-Ouen for the design.





Alstom wins contract to renovate the trains of the RER B

Alstom has been selected by the RATP to renovate the MI84 trains of the RER B. The contract, which is worth 75 million euros, includes a binding section covering the studies, the industrialisation and the execution of the renovation operations of 31 trains, with an option covering up to 10 additional trains. Delivery of the first two renovated trains is scheduled for 2019. The studies and renovation will be carried out on Alstom's site in Reichshoffen, which now employs about 1,000 people. Notably, the renovation will include interior design, comfort and passenger safety. Technical operations will also be carried out to extend the original lifetime of the equipment.

The four-car MI84 trainsets were assembled on the Alstom site of Valenciennes in the early 1980s and entered commercial service in 1985. The renovation aims to align the comfort levels of the MI84 trains with those of the MI79 trains renovated between 2010 and 2015, also in circulation on line B.

"I am delighted that the RATP has chosen Alstom for this renovation project which will allow the

passengers of the RER B to benefit from more comfortable trains. Alstom develops one of the most complete ranges on the market to accompany the customer throughout the lifetime of the products. With recent references stemming from international renovation projects in Chile, the United States and Great Britain, Alstom is strengthening its expertise in this field in France," said Jean-Baptiste Eyméoud, President of Alstom in France.

Modification of the interior fittings will increase seating capacity from 216 to 312 seats per car, identical to that of the MI79. The replacement of the floor covering, the lamination of interior trim elements and the replacement of the seats will satisfy the RATP's wish to harmonise the colours with those of the other trains running on the RER B. The addition of air conditioning, new holding bars and LED lighting will increase passenger comfort. A video protection system including cameras and a recorder will also be added, and the internal partitions of the cars removed. The operating parameters recorder and door control function will be replaced, enabling

the RATP to optimise and secure train operation. Finally, technical restoration will allow for the overhaul of the high voltage transformers and door mechanisms as well as repairs to the frame and related parts. A new external livery will reinforce homogeneity with the rest of the fleet.



SNCFBBNo.27303stands at Paris Montparnasse on the rear of an outer suburban service.

John Sloane



CAF WILL MANUFACTURE THE NEXT MAINTENANCE LOCOMOTIVES FOR RATP (FRANCE)

The public transport operator, RATP, based in Paris, or Régie Autonome des Transports Parisiens, has awarded CAF a contract for the design and manufacture of dual-mode electric locomotives; i.e. they may run by drawing power through overhead wires as well as through batteries located inside the units. The framework agreement envisages the supply of 12 units with an option to acquire up to 6 additional locomotives and an approximate contract value of € 65 million.

RATP is the public transport operator which manages Metro Paris network; city and intercity transport in Paris and the greater Paris metropolitan area; as well as regional lines (RER). In particular, the units will be used to tow trains providing maintenance for the regional railway network infrastructure operated by RATP.

These locomotives are expected to be manufactured from mid 2018 at CAF's plant located in Bagnères de Bigorre (France) and the first unit is expected to be delivered in the first quarter of 2019.

These shunting locomotives with a power range of 1000 kW, are equipped with nickel-cadmium batteries which enable them to carry out completely autonomous maintenance activities. This technology was implemented in units of this type for the first time in the world. Likewise, it is worth highlighting that the replacement of conventional diesel engines will yield a major environmental improvement, as pollutant emissions are eliminated and noise during operation is significantly reduced.

Thanks to this breakthrough, CAF maintains a strong commitment to innovative products in the locomotive market; the company is already present in the national market with

Bitrac locomotives, as well as high-speed diesel-electric traction locomotives in operation in Saudi Arabia.

This contract is part of CAF's strategy to find new business avenues with the aim of multiplying its presence in the global railway infrastructure market, both in terms of design, integration and installation as well as operation and maintenance. Furthermore, this means the consolidation of CAF's presence in France, where the company has carried out many projects in recent years, including but not limited to: the supply of tramways for Nantes, Besançon and St.Etienne cities, as well as the rehabilitation of Lyon metro train fleet.

SNCF Fret BB No. 427047 speeds through St. German au Mont D'or on February 28th hauling a rake of tanks towards Lyon. *Class47*



▶ Dampflok BR 0-6-0T No. 80.030 is pictured inside Bochum Dahlhausen shed. *John Sloane*



▶ DB(KPEV) No. 38.2267 4-6-0 steams in Bochum Dahlhausen yard. *John Sloane*

▶ Bahndienstfahrzeug DB 712.001-7-6210-Kar (Ex DR 137.158) Tunnelmesswagen) stands outside Bochum Dahlhausen shed. *John Sloane*



Alstom receives an order for five Coradia Lint regional trains in Germany

Alstom has received an order worth over €20 million from the Bentheimer Eisenbahn AG for the supply of five Coradia Lint diesel multiple units. Starting December 2018, the new trains will operate at hourly intervals on the 28-km Bad Bentheim – Nordhorn – Neuenhaus route in Lower Saxony (Germany), after a 44 year interruption of service. The modern trainsets will be built in

Alstom's plant in Salzgitter.

“We are pleased to take part in this extremely important project for the Grafschaft Bentheim. Our well-proven and state-of-the-art trainsets from Lower Saxony will be an enrichment for both passengers and regional public transport“, says Jochen Slabon, Sales Director for Alstom in Germany and Austria.



The 42-metre trainsets for the Bentheimer Eisenbahn AG are equipped with 118 seats and can accommodate around 136 people standing. In peak times the trainsets can be operated in double units for double capacity.

During the development and design of the trains, Alstom placed special attention on passenger friendliness: the fully air-conditioned trainsets are equipped with ticket machines, a toilet suitable for wheelchair users, baby changing facilities, generous parking space for prams and carrying loads as well as supports for bicycles. Moreover, the trains provide video monitoring throughout the whole train, WiFi and charging facilities for mobile devices. 21.5 inch monitors ensure passengers are informed in real time about the course of the route, travel times and connections.

In Salzgitter, the worldwide largest manufacturing site within the Alstom Group, diesel and electric multiple units are built for the national market and for export, mainly to Scandinavia. With a market share of 70 percent for modern diesel trains over the last ten years, Alstom is by far the market leader in Germany. Alstom has over 2,500 employees in Salzgitter.

Since 2000, Alstom's Coradia Lint trains are operated on more than 30 networks throughout Germany, Europe and Canada. Being constantly upgraded, the trains offer high standards in safety, noise level and carbon emissions and are characterized by their high availability.

On February 22nd, in heavy rain, DB Class 146.118-5 departs Oberhausen working a RE2 service to Dusseldorf Hbf. *Class47*

 Germany



▶ RBH No. 904 (Class 273.008) stands at Osterfeld Sud shed. *John Sloane*



▶ A Class 114 is photographed stabled outside Frankfurt Hbf. *John Sloane*



▶ DB Class 232.635 stands in Mulheim yard with a rake of timber carrying wagons. *John Sloane*



Alstom to supply 10 extra Citadis trams to the city of Strasbourg

Alstom is to supply 10 additional Citadis trams to the Strasbourg transport company CTS (Compagnie des Transports Strasbourgeois) for an amount of 28 million euros as part of a framework agreement signed in November 2014. The first binding part of this agreement covered the supply of 12 Citadis trams, due to enter commercial service at the end of April 2017.



These trams are intended for the extension of lines A and D and will serve the city centre of Illkirch-Graffenstaden, which has undergone rapid development over the last few years. They will also run on the cross-border line linking the centre of Strasbourg to Kehl in Germany; these are the first trams in France to

cross a border. The first technical and gauge tests concerning circulation on the German portion of line D have started with the new Citadis trams. Alstom is also responsible for the

design and installation of the overhead contact line for the line D extension towards Kehl, as well as the laying of 300 metres of track on the Rhine Bridge.

“With a first order in 2003 and the signing of a framework agreement in 2014 which includes this new order, the CTS will own a total of 63 Citadis trams. The exterior design of the cabin was chosen by the passengers; the Strasbourg tram therefore proves that Alstom’s Citadis range can be based on tried-and-tested technology while being highly personalised,” says Jean-Baptiste Eyméoud, President of Alstom in France.

The Citadis trams of Strasbourg will be the first approved by German Federal BoStrab regulations covering the manufacture and operation of trams in Germany. The trams will be 45 metres long with a capacity for 288 passengers. They will be fitted with LED lighting and full glass doors, enhancing passengers’ sense of comfort and security. To conform to the PRM (People with Reduced Mobility) decree, the trams are fitted with accessible buttons for opening doors, wider seats and zones reserved for wheelchair users and pushchairs.

The trams will be manufactured mainly in France: La Rochelle (design and assembly of the trams), Ornans (design and manufacture of the engines), Le Creusot (bogies for intermediate modules), Tarbes (elements of the traction chain), Villeurbanne (electronic equipment), Saint-Ouen (design) and at the Salzgitter site in Germany for the bogies fitted under the drivers’ cabins. To date, 2,300 Citadis trams have been sold to over 50 cities in 21 countries.

DB Class 143.568 stands at Koblenz on February 22nd, working a service to Koln Hbf. *Class47*



DB Regio orders 39 multiple-unit regional trains from Siemens

First order for 24 articulated trains based on the new Mireo platform

15 double-decker trainsets from the proven Desiro train family

Beginning in 2020, DB Regio AG will operate its Rhine Valley rail network in southwest Germany exclusively with new trains supplied by Siemens. The mass transit arm of Deutsche Bahn has ordered 39 trainsets specifically for this purpose. The order comprises 15 Desiro HC and 24 Mireo trains. This marks the first order for the company's new articulated Mireo regional train platform that was recently premiered at Innotrans, the world's biggest rail trade fair.

Keeping Baden-Württemberg moving: from 2020, the Mireo will stand for premium-class mass transit.

"Following the product launch, we very quickly succeeded in entering the market with our new Mireo train platform. The Mireo combines economy with sustainability and offers optimal flexibility over its entire lifecycle," said Sabrina Soussan, CEO of Siemens' high-speed trains, regional trains and locomotives business.

Train service in the Rhine Valley will be restructured. When completed, there will be a clear separation between fast cross-regional trains running between the major cities,

and a regional suburban rail system (S-Bahn) with stops at all local stations. At the same time, the number of trains operating in the region will be substantially expanded. The new trains have been ordered to meet these special requirements.

The Mireo will operate as a regional train (RB) along the Offenburg – Freiburg – Basel/Neuenburg (Switzerland) route as well as in the Kaiserstuhl area on Sundays between Freiburg and Endingen/Breisach. The train is conceived as a scalable articulated train. With the help of its new aerodynamic design and quiet bogies, noise is substantially reduced. The train's lightweight construction, energy-efficient components and intelligent board network management system reduce energy consumption by 25 percent compared to previous trains. The three-car trains have 220 seats.

The Desiro HC will operate as a regional express on the Karlsruhe – Offenburg – Freiburg – Basel route. Each train will consist of four cars, of which the first and last cars – the end



cars – will have a single-deck design and the middle two cars will be double-deckers.

Over 50 percent of the interior space is barrier-free, completely without steps in the two single-deck end cars and equipped to meet the needs of mobility-impaired passengers. With the double-decker middle cars, the trains are only 105 meters long yet offer 410 seats and spacious legroom. Both regional train types are designed to have top speeds of 160 km/h.

DB Class 152.136-2 speeds through a dull Rudesheim (Rheine) on February 23rd. *Class47*

Bombardier to Provide 21 Additional FLEXITY Trams to Berlin

Berlin expands Germany's largest tram network with additional FLEXITY vehicles

FLEXITY trams feature low-floor, easy access for passengers and regenerative braking system

Rail technology leader Bombardier Transportation has announced that it will provide an additional 21 BOMBARDIER FLEXITY Berlin trams to the German capital. This fourth call off exercises all options from the framework agreement signed with Berlin Transport Authority (BVG) in 2006 for a maximum of 210 vehicles. The order is valued at approximately 71 million euro (\$ 76 million US). Maintaining one of the biggest tram networks in the world and the biggest tram network in Germany in a rapidly growing city, BVG will use the additional FLEXITY 100% low-floor trams to increase capacity and meet the demands of a rising passenger base.

Michael Fohrer, Chairman of the German Management Board and President Locomotives & Light Rail Vehicles, said, "We're glad to have received this additional call off. It represents an important milestone in the long term partnership with our valued customer BVG and is a strong proof of the passenger-focused features and exceptional performance of the FLEXITY platform."

To date, 137 Bombardier FLEXITY trams have been delivered, on-time and to the satisfaction of both customer BVG and its passengers. Since entering service in 2011, BVG's FLEXITY fleet has reliably performed 29 million kilometres with 132 vehicles in operation as a key part of Berlin's public transportation offering.

The FLEXITY Berlin concept has proven its value through the long-standing cooperation with BVG in what constitutes one of the largest tram framework agreements in Europe. The bidirectional trams are 40m long and 100% low-floor. A

speciality of the Berlin vehicle is the big wheel diameter which allows for a longer wheel life time – yet achieving 295mm low entrance height and an almost ramp-free passenger cabin. The tram also features a regenerative braking system that harnesses the energy typically lost when vehicles brake and feeds it back into the tram's propulsion system. The award-winning and ecologically-friendly vehicles offer ample space, multipurpose areas and air-conditioning in both the passenger area as well as the driver's cabin.

In 2006 BVG ordered four pre-series vehicles for testing of suitability for series production. 99 trams were ordered in 2009, 39 more trams in 2012 and another 47 vehicles in 2015. To enhance their fleet performance, BVG is also testing Bombardier's remote diagnosis system myBTfleet on four of their FLEXITY trams. The system enables users to optimise service and maintenance through real-time data gathered directly from the vehicle.

Photo: © Bombardier



























▶ Type DH3-1200 B-B diesel-hydraulic locomotive No. 631 was originally a class W1 built by Rheinstahl-Henschel until rebuilt by Adtranz in 1997 and fitted with a Caterpillar DI-TA engine when it was reclassified to Class W3. Seen here at Colombo Fort and coupling up prior to working away train No. 1023, 12:40 to Hatton. *David Pollock*

▶ CClass M2D type G12 A1A-A1A diesel-electric locomotive No. 628 'KANKASENTURAI' built by General Motors / Electro-Motive Division and equipped with GMD/EMD 12-567C engine draws a rake of empty coaching stock into Maradana prior to working train No. 8772, 17:40 to Aluthgama. *David Pollock*

▶ Class M10A type WDM3D Co-Co diesel-electric locomotive No. 944 built by Diesel Locomotive Works at Varanasi, India and equipped with an Alco 251B-16 engine departs Colombo Fort with a southbound consist. *David Pollock*





▶ Class M2B type G12 A1A-A1A diesel-electric locomotive No. 595 'NEWFOUNDLAND' built by General Motors / Electro-Motive Division and equipped with a GMD/EMD 12-567C engine calls at Hikkadewa whilst working train No. 8788, 10:10 Kalutara South – Galle. This class of locomotives were sold to Sri Lanka with Canadian government aid thus many carry Canadian place names in recognition.

David Pollock

▶ Class M10A type WDM3D Co-Co diesel-electric locomotive No. 940 built by Diesel Locomotive Works, India and equipped with a Alco 251B-16 engine, waits departure from Matara with train No. 8051, 14:10 to Maradana. *David Pollock*

▶ Calling at Kalutara South whilst working mixed train No. 8349, 09:00 Galle – Colombo Fort is class M7 Bo-Bo diesel-electric locomotive No. 807 built by Brush Traction and equipped with an EMD 8-645E engine. *David Pollock*











▶ RhB Ge 4/4 III No. 642 approaches Bergün with train No. RE1141 from Chur to St. Moritz. *Stearnsounds*



▶ Rigi Bahn trains from Arth-Goldau and Vitznau stand at Rigi-Kulm. *Stearnsounds*

▶ Jungfrauabahn Bhe 4/8 No. 224 descending from the Jungfraujoch, approaches Kleine Scheidegg. *Stearnsounds*







Stadler signs contract to build and maintain 52 metro trains for Liverpool City Region

Stadler has signed a transformative deal with Merseytravel worth up to £700 million to build and maintain 52 metro trains on the Merseyrail network for the Liverpool City Region from 2020. Replacing one of the oldest fleets in the UK, the new trains will provide fully step free access for all passengers, making Merseyrail the most accessible traditional network in the UK. A new Kirkdale maintenance depot will be entirely designed, built and operated by Stadler,

Transforming rail travel

The current Merseytravel fleet is one of the oldest in the UK, with an average age of almost 40 years. This contract will entirely replace the existing fleet, making it one of the most modern in the country and transforming the passenger experience. The trains will be able to carry 60% more passengers, while retaining the same number of seats, and will cut journey times by up to 10%.

The new four-car trains will all be in service by 2021, with the first unit arriving for testing by the middle of 2019. The value of the manufacture and maintenance contracts for the 52 trains is up to £700m and Merseytravel also has the option to trigger the manufacture of a further 60 vehicles.

The trains will have lower floors, only 960 mm above rail level, and will be entirely walk-through, increasing their capacity to 486 people (182 seated, 302 standing, and two wheelchair users). Strong but lightweight carriages, built from aluminium extrusions, mean they will be safer and more energy efficient.

The 64.98 metres long and 2.82 metres wide trains will operate on a 750V DC third rail network with a maximum speed of 75 mph (120 km/h). The units will also be equipped with batteries that allow independent movement of the units in the workshop and depot areas. The trains will be able to be retrofitted for 25 kV AC operation and ETCS Level II.

Transforming safety

The new vehicles have been designed for the specific needs of customers travelling on the Merseyrail network, with many features reflecting what people said they wanted in research done by passenger watchdog, Transport Focus, in 2013.

Providing a new level of safety, intelligent sliding steps, combined with infrastructure improvements, will virtually eliminate the gap between the platform and the train, providing step free access at all entrances.

With no 'gap to mind', the new fleet will be highly accessible for all, from wheelchair users and the elderly, to cyclists and passengers with luggage. Sensitive door sensors will detect obstructions, while door illuminations will inform passengers when it is safe to embark and alight.

On-board safety will be enhanced by open and airy compartments with no dividing doors, as well as CCTV and a transparent cabin for the driver. The trains will have wider aisles, larger vestibules at the doorways, more grab handles, making the train safer to use for standing passengers too.

All the interior fittings will be damage resistant and the exterior will be graffiti and spray paint

resistant. The driver's cab offers a comfortable working environment with enhanced sight lines, an ergonomic desk arrangement and all of the functionality required for flexible, modern trains.

Transforming Stadler's presence in the UK

Through the maintenance contract, Stadler will undertake light and heavy maintenance of the units throughout their 35 year life cycle. Ensuring the highest possible availability of trains and the most efficient maintenance turnaround, Stadler will design, construct and operate a brand new, state of the art depot at Kirkdale. Stadler will also oversee the maintenance of the existing fleet, which will be carried out at the current facility in Birkenhead.

Stadler will transfer 155 maintenance workers from Merseyrail into its own operations, bringing the total number of Stadler employees in the UK to over 200 people by 2019.

Peter Jenelten, Executive Vice President and Head of Marketing & Sales of Stadler said: "This contract with Merseytravel marks a very important milestone for Stadler in the UK. It will bring safer, more comfortable trains that can carry more people and will help provide the Liverpool City Region with the metro service it deserves.

"The UK is a key part of our global strategy and this contract represents the latest step in our growth here. We have recently been successful in several high profile tenders, including the provision of 58 multiple units for the East Anglia franchise and the delivery of 17 metro trains for the Glasgow Subway, and we now look forward to working with Merseytravel to deliver its new trains on schedule."

Frank Rogers, Chief Executive of Merseytravel said: "We are very much looking forward to working with Stadler. The fleet of new trains will provide the foundations of our City Region's long term rail strategy and we anticipate our relationship with Stadler developing into a strong, enduring partnership.

Merseyrail is already high performing network and these trains, designed with local people in mind, will help support that for decades to come. The new trains will be safer and able to carry more people, more quickly and, when combined with infrastructure improvements, the new fleet will make Merseyrail the most accessible traditional network in the UK."





Siemens to supply signalling systems for new metro system in Nagpur, India

Trainguard MT ordered for first two metro lines of Nagpur Metro Rail Project

Order worth around €40 million

Siemens is to supply signalling technology for the first two metro lines of the Nagpur Metro Rail Project in India. The order, worth €40 million, comprises the delivery of Siemens' Trainguard MT system that uses wireless Communications-Based Train Control (CBTC) technology to enable automated train operation. Overall, around 38 kilometres of the project's double-track route, two depots and 23 three-car metro trains will be equipped with the system. The CBTC solution allows trains to operate at headways of 90 seconds or less.

Nagpur is the largest city in the geographical center of India and has over two million inhabitants. Over the past decade alone, the city's population has grown by some 17 percent. Less than five percent of all inner-city trips are currently made on public transportation systems.

The number of cars, motorbikes and bicycles in the city is growing much faster than the population. The two new metro lines will help prevent a threatening traffic gridlock.

The east-west corridor of the metro line will have 19 stations, and the north-south corridor will have 17 stations and connect with the city's airport.



Alstom signs two-year extension contract to support train availability in San Francisco

Alstom and the San Francisco Municipal Transportation Agency (SFMTA) have signed a two-year extension contract for an inventory control program, called Vendor Managed Inventory (VMI), which enables SFMTA to improve fleet availability. The contract extension is worth approximately €14.5 million.

SFMTA's fleet is composed of 151 light rail vehicles, 26 historic streetcars and 40 cable cars, and require a continuous supply of spare parts and inventory from a variety of vendors. Many parts become obsolete or difficult to locate as the fleet ages. Alstom's VMI program identifies the most-critical and the most-used parts, manages the purchase of trains parts as well as the control and flow of the inventory, and provides reverse engineering for parts that are unavailable or obsolete.

"We want to thank SFMTA for this additional contract extension and for the confidence they have shown in Alstom since the beginning of this partnership in 2013," said Jérôme Wallut, Senior Vice President of Alstom North America.

"We are proud of the improvements in efficiency and reliability that Alstom's VMI program provides for SFMTA."

The VMI program, which is part of Alstom's services portfolio, reduces the processing and delivery time for restocking inventory through automated parts replacement and improved forecasting. Greater parts availability means preventive and scheduled maintenance can be performed on-time and vehicles can be returned to service more quickly. Alstom's VMI service has resulted in nearly 10% more cars available for revenue service each day and a 74% increase in the mean distance cars travel before requiring repair.

A key differentiator is Alstom's ability to apply its VMI program to assist in the servicing of other manufacturers' vehicles. Alstom's international sourcing team is capable of locating vendors around the world.

Alstom has a proven global history of using VMI to help its customers more efficiently manage the flow and inventory of parts, including providing its VMI services to Amtrak to help it maintain and repair its current Acela fleet. The Alstom VMI service provided to SFMTA is managed out of Alstom's Mare Island facility, north of San Francisco.

In addition to the VMI service for SFMTA, the Alstom team at Mare Island performs extensive wreck damage repairs on the Amtrak Pacific Surfliner fleet and is making modifications to 66 Caltrans bi-level intercity passenger rail coaches. Alstom is also currently overhauling and rebuilding traditional passenger cars into more luxurious coaches for Rocky Mountaineer. Alstom has been a service provider for more than 25 years and has been awarded over 100 maintenance projects and more than 80 modernisation contracts around the world.

Photo: © Alstom





Alstom and SNTF reveal the design of Alstom's new "main line" train for Algeria



Alstom and the National Rail Transportation Company of Algeria (SNTF) have unveiled the design of the new Coradia Polyvalent "main line" train destined to run in Algeria during the 4th edition of the International Transport, Logistics & Mobility Exhibition held in Algiers.

In July 2015, SNTF ordered 17 Coradia Polyvalent trains from Alstom as part of a project to modernise and extend its network. The trains' entry into commercial service, notably connecting Algiers to the cities of Oran, Annaba, Constantine and Bechar, is scheduled from January 2018.

"The project is underway and is progressing extremely well - at full speed!" said Yacine Benjaballah, Managing Director of SNTF. "We are very satisfied with

the progress made and the results obtained. This train will become a national asset, satisfying the needs of our passengers who will be proud to use it."

"The design of Coradia Polyvalent for SNTF was developed by Alstom's Design&Styling department in close collaboration with the SNTF teams. Through the design, the teams have attempted to evoke the modernisation, movement and beauty of Algeria's landscapes with the shared goal of offering passengers a unique and comfortable travelling experience," said Henri Bussery, General Manager of Alstom Algeria.

The external livery of the train reflects the various landscapes travelled through (city, countryside, coasts, mountain), through its subtly reflective coating. The interior of the train is spacious and bright. The train is fully air-conditioned and has a dining area and comfortable seating. Coradia Polyvalent for SNTF benefits from the latest technological innovations. It is a bimodal train (diesel or 25kV electric) capable of running at speeds of 160 km/h. With a total length of 110 metres, the train has six cars and can accommodate 254 passengers.

It is adapted to the climatic and environmental conditions of the country with a highly efficient air conditioning system. Its low floor facilitates access and movement on board, in particular for people with reduced mobility (PMR). The architecture of the train and its powerful engine eliminates noises and vibrations, offering unrivalled comfort of travel. The 17 trains are being manufactured at Alstom's site in Reichshoffen, France.

Four other Alstom sites in France are involved in the development of the trains: Le Creusot for the bogies, Ornans for the motors, Tarbes for the traction system and Villeurbanne for on-board electronic and passenger information systems.



Railtalk Magazine
Xtra

World News



Alstom to supply 9 additional X'Trapolis trains to Victoria



Alstom has signed a contract worth around €100 million with Public Transport Victoria (PTV), the State's public transport authority, to supply nine additional X'Trapolis trainsets for Melbourne's suburban rail network. This will expand PTV's fleet to 101 trains (606 cars) delivered from Alstom's manufacturing facility in Ballarat since 2002.

The new trains will begin production at Ballarat's facility in late 2017 with delivery of the 101st train expected in late 2018.

This order coincides with the 100th anniversary of the Ballarat site. With privatisation of public assets in the late 1990's, the workshops were acquired by Alstom in 1999. Alstom X'Trapolis trains have proven to be the most reliable trains on the Melbourne network and will further enhance the network's capacity while also increasing the reliability of the entire system. Composed of six cars, the 145 metre long train has been designed to optimise the capacity (1,430 passengers) whilst maximising passenger experience, comfort or safety. "We are proud to have been trusted by the Victorian government to supply a further 9 trains from our industrial base in Ballarat. This will guarantee regional jobs, training and investment and ensure ongoing support to Alstom's extensive network of local suppliers.

These new trains will provide additional transport capacity to the residents of Melbourne's area and allow them to commute on-board a reliable, comfortable and environmental-friendly mode of transport" said Mark Coxon, Managing Director of Alstom in Australia and New Zealand. X'Trapolis is the brand name for suburban train among Alstom's trains portfolio. In over 10 years, more than 4,600 X'Trapolis cars have been adopted by countries like: Australia, Chile, Spain, South Africa and France.



Alstom installs latest ETCS technology to Network Rail's Class 313 trains

Alstom has completed the upgrade of its ETCS technology, Atlas 200, on Network Rail's Class 313 test train, so that it is now compatible with ERTMS Baseline 3. This follows successful compatibility testing at Network Rail's ERTMS National Integration Facility in Hertford and benefits from train-track integration of a baseline 3 track installed for the first time worldwide by Alstom in Denmark last summer.

being supplied by Alstom. Atlas is interoperable across European rail corridors and can be applied to all types of trains. It has a great track record abroad and we are looking forward to bringing its benefits to the UK," said Nick Crossfield, Managing Director for Alstom in the UK & Ireland.

"The ETCS technology upgrade is a critical step forward in furthering the Digital Railway agenda. Having seen what the technology can do for rail travel in other European countries, we are excited



Alstom and Network Rail will now use the upgraded Class 313 train for testing and commissioning work to deliver ERTMS Baseline 3 to the Paddington-Heathrow stretch of the Great Western Main Line by 2017.

The work is a key milestone in the development of digital signalling, which will support the UK's Digital Railway plans to reduce journey times for passengers, improve safety, reduce maintenance costs and create more capacity on the UK rail network.

"The successful upgrade of our Atlas 200 technology on the Class 313 train is a significant milestone towards a digital railway in the UK. It has the potential to bring huge benefits to Network Rail, operators and passengers alike. Alstom is one of the global leaders in rail signalling, with nearly three quarters of onboard ERTMS equipment in service

to be bringing digital enhancements to the UK Rail Network that will lead to an improved passenger experience." Said Michael Flynn, Programme Director of Digital Railway, Network Rail.

The Class 313 upgrade is Alstom's third UK trainborne contract to install its ERTMS Baseline 3 technology. On trackside, Alstom was recently awarded a contract worth around €17 million by Network Rail to provide ETCS for Crossrail. The contract will see Alstom's signalling and infrastructure division deliver ETCS to enable Crossrail on the line between Stockley Junction and Heathrow Terminals 4 and 5.



Alstom to supply traction, static inverter and train control monitoring systems for Shanghai

Alstom has been awarded a 17 million euro contract by Shanghai Shentong to supply traction systems, static inverters (SIV), and train control monitoring systems (TCMS) for 64 new metro cars destined to circulate on Shanghai metro line 2. The new metro cars will extend 16 existing metro trainsets from four cars to eight in order to increase transport capacity of the line which is facing higher ridership.

Shanghai metro line 2 connects the city from the west to the east via 30 stations in a total length of 64km, connecting two airports and major tourist sites in Shanghai including Jing'An temple, Nanjing Road, The Bund, Lujiazui and

control system integration.

"Alstom is pleased to pursue its collaboration with Shanghai Shentong and be part of Shanghai line 2 developments which will increase transport capacity and improve passenger experience. With its proven and reliable technology deployed worldwide, 17 years of presence in Shanghai and strong partnership with local actors, Alstom is the best partner to support Shanghai in its urban mobility projects in a context of higher urbanization" said Ling Fang, Managing Director of China & East Asia, Alstom.



Shanghai Science and Technology Museum. Today, 360 metro cars are circulating on the line for which Alstom supplied traction systems, SIV and TCMS in 2006 and 2008.

Under this contract, Alstom is in charge of supplying its ONIX system, which includes traction inverters, motors, static inverters and a train control and monitoring system. The ONIX system is designed to improve operational performance and reduce life cycle costs by using regenerative electrical braking. The TCMS system, which interfaces, controls and monitors train equipment and processes, allows full

In 1999, Alstom won its first metro contract in China to supply 168 metropolis metro cars for Shanghai Line 3. So far, Alstom has supplied 1,222 metropolis metro cars for seven Shanghai metro lines. 3 Alstom joint ventures have been established in Shanghai since 1986 providing signalling systems, traction systems, metro and trams to China and abroad.



From the UK

East Lancashire Railway

The East Lancashire Railway is a 12 1/2-mile heritage railway line in North West England which runs between Heywood and Rawtenstall with intermediate stations at Bury Bolton Street, Burrs Country Park, Summerseat, Ramsbottom and Irwell Vale. In mid February the line held its first major event of the year - The Spring Diesel Gala.

- ▶ Class 40 No. 345 stands at Ramsbottom on the rear of a Rawtenstall to Heywood service on February 18th. *Richard Hargreaves*
- ▶ Awaiting departure time. Class 41 466, still in EWS livery, is pictured at Rawtenstall with a Heywood bound service, February 18th. *Richard Hargreaves*
- ▶ Having blown a battery cell, Class 33 109 'Captain Bill Smith RNR' is seen retired to the bay at Rawtenstall, February 18th. *Richard Hargreaves*



From the UK

▶ Class 14 No. D9531 'Ernest' leads Class 45 108 as the pair depart Bury with a service to Heywood. *Richard Hargreaves*

▶ Recently returned to service following engine repairs, Class 47 No. D1501 prepares to depart Heywood on February 18th with a service to Rawtenstall. *Richard Hargreaves*

▶ Having just arrived on a Ramsbottom to Bury 'local' service, Class 73 001 enjoys a little weak winter sunshine at Bury Bolton St. on February 18th. *Richard Hargreaves*





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Italy

FS Class E428.161 stands at Napoli Smistamento shed with E426.125 on the turntable and 835.210 beyond, August 26th 1977.
John Sloane

