

Railtalk Magazine Xtra

Welcome to the Railtalk Magazine Xtra, which compliments the main Railtalk Magazine and means that we can put even more pages together every month. As always in Xtra, we focus on life outside the UK, and once again we have some excellent shots from around the world. Our "From the UK" section this month looks at the National Railway Museum's Railfest event.

Well another month has passed and still no sign of summer in the UK, but I am happy to report that mainland Europe has certainly had plenty of sunshine, as I recently found out on an Inter-rail journey through Germany, Switzerland and France. I also noticed that we seem to lag behind several other European countries in terms of comfort, passenger service and high speed trains (ie: TGV and ICE).

Back in the UK, I went (along with several others) to the NRM's Railfest, and despite my reservations, it turned out to be a rather pleasant affair. Some of the photos can be seen in this month's magazine, apologies to those that aren't included, we just couldn't use them all.

As always thanks for all the photos sent in this month, and remember if you are going on holiday, don't forget to pack the camera.

David

Once again many thanks to the many people who have contributed, it really makes our task of putting this magazine together a joy when we see so many great photos. This issue wouldn't be possible without: Colin Gildersleve, Steve Madden, Brian Battersby, Paul Godding, Richard Hargreaves, Pavel Kopec, Tomáš Kubovec, Martin Grill, Martin Válek, Mark Pichowicz, Richard Weber, Filip Štajner, Pavel Šturm, Bea Želtvayová, Petr Holub, Pavel Martoch, Honza Štofaňak, BVT, Ivo Rušák, Zdeněk, MirKo, Libor Hyžák, Keith Hookham, Jaroslav Charvát, Matouš Vinš, Martin Hill, Steve Dennison, Ian Leech, Anton Kendal, Laurence Sly, Colin Hart, Piotr Kozlowski, and Roger Williams.

Front Cover: A pair of former SJ Rc4s Nos. 1179 and 1193 now operated by Green Cargo are seen between jobs at Astersund central station on a dreary Sunday afternoon, June 3rd. In the background is an Rc6 with a rake of coaches (one of which is still in the old livery) for the late afternoon SJ service to Stockholm. Colin Hart This Page: Class 2M62U-0282 passes through the small town of Silmalas Pagasts at speed with a long coal train bound for Daugavpils. Steve Madden

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Submissions

Pictures, articles and news can be entered through the forum, or by email to us at:

entries@railtalk.net

Please include a detailed description and credits.

Railtalk Magazine Xtra

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CD Cargo liveried Class 742.171-2 and 742.204-1 haul a mixed freight working from Kojovice - Byšice on April 27th. *Pavel Šturm*



















































An original cycle track resulted from the modernization of the railway line and the initiative of the city of Zábřeh

The scent of railway sleepers and a beautiful scenery of green wooded hills – this is just a fraction of experiences we can enjoy on a completely new over 2,5 km long cycle track between Hoštejn and Lupěné in the Olomoucky Region. The path (not only) for the cyclists was built thanks to the modernization of the line Česká Třebová – Zábřeh na Moravě, part of III Railway Transit Corridor, and to the construction of a new tunnel relocation running through Hejnice Massif and after leaving the original earthworks and trackbed construction. The investor of the line modernization is the Railway Infrastructure Administration, state organization (SŽDC).

The investor of the cycle track is the city of Zábřeh and the Olomoucký Region contributed with over CZK 1,6 MM. The funds at the amount of CZK 9,1 MM were granted by the State Fund for Transport Infrastructure. The investment cost (including the related transport infrastructure) totals approximately CZK 12 MM. The

modernization of the line and the afore-mentioned need to re-align the line initiated talks about the cycle track on a deserted earthworks bordering Hejnice hill. SŽDC was most helpful to supporters of the future cycle track. The result was quite logical and meaningful as the ideal track was used with existing bridge structures and practically a zero gradient (max. 2%), which will surely satisfy less trained cyclists or in-line skating enthusiasts. The new cycle track can also be used e.g. for the organization of speed competitions in cycle run of the Republic's Championship (Rollo liga).

More information about the project:

The cycle track is part of the significant regional cycle track No. 6232 running on existing adjoining III class roads in the direction of Hoštejn.

This regional cycle track connects the via Hoštejn running regional cycle track No. 521 (Moravská Třebová – Štíty) with the long-distance Moravian cycle track No. 51 running via Lesnice. Diversion of its part to the deserted earthworks contributed to enhanced safety of cyclists in this section. The change of the function of the deserted earthworks thus has a positive impact on less noisy transport in the vicinity; it will fulfil transport-service function as well as the recreational, touristic and sporting role.

The diversion of cycling traffic to deserted earthworks in the section from Hoštejn to Lupěné was recommended in the "Concept for cycling transport development on the territory of the Olomoucký Region" in 2003 as well as in the current "Area feasibility study of cycling transport development in the Olomoucký Region". The project was implemented in order to enhance the safety of cyclists by diverting the cycling traffic from roads to deserted earthworks. The path runs along the watercourse of the Sázava River. Its existence opened the aesthetically most interesting section of this waterway. The construction of the cycle track was physically implemented from August to November 2011.

The city of Zábřeh, with the cycle track on the deserted earthworks within the follow-up project, has recently built a nature trail with several stops (information boards) presenting information about the beauties of nature of this location and railway history.

The construction of the cycle track on the deserted earthworks was funded by the Olomoucký Region, State Fund for Transport Infrastructure and the city of Zábřeh.



Bombardier Signs Technology Licence Agreement to Take State-of-the-art Tram Technology to China

Rail technology leader Bombardier Transportation has announced that it has signed a Technology Licence Agreement with CSR Puzhen, a subsidiary of the largest player in the railway manufacturing sector in China – China South Locomotive & Rolling Stock Corporation Ltd (CSR). Under the agreement, Bombardier provides CSR Puzhen with a 10-year licence to manufacture and sell 100 per cent low-floor trams with Bombardier technology in China (including Hong Kong and Macao).

The licensed product is a variant of the BOMBARDIER FLEXITY 2 platform of vehicles already operating in Blackpool, UK and being delivered to the Gold Coast, Australia. The agreement covers the preparation and delivery of documentation of the licensed product as well as training and assistance for CSR Puzhen's employees to understand the documentation and enable them to successfully manufacture and sell the licensed product. Bombardier will not actively build vehicles in China, but comprehensively support its new Chinese partner. The vehicles will be



equipped with the innovative BOMBARDIER FLEXX Urban 3000 bogies and the BOMBARDIER MITRAC 500 propulsion and control system.

After recent significant achievements in China's high speed train, locomotive, signaling and metro segments, Bombardier Transportation is now entering the tram market in China through a co-operation with CSR Puzhen. This move supports Bombardier's strategic drive to grow strong "local roots" in key markets. "After many years of intense development of metros, Chinese cities are embracing low-floor trams to complement their urban transit systems. Bombardier is now bringing its state-of-the-art technology to this new and growing market," said Jianwei Zhang, President of Bombardier China.

Germar Wacker, President Light Rail Vehicles, Bombardier Transportation, added: "Our FLEXITY trams combine market-leading experience, proven parts and visionary engineering. We are proud to take this vehicle family to China. This will ensure that passengers in China can enjoy the highest standards in comfort and safety. By providing efficient and ecological transport solutions, Bombardier's FLEXITY trams shape the identities of modern cities across the globe." As the market leader in the tram and light rail vehicle (LRV) segment, Bombardier and its FLEXITY family offer modern mobility solutions to meet the requirements of any city. The most comprehensive portfolio of the industry ranges from 100 per cent low-floor trams and 70 per cent low-floor trams and LRVs to proven dual system solutions. More than 1,700 FLEXITY trams are already in successful revenue service, and Bombardier has sold more than 1,000 FLEXITY 100 per cent low-floor trams to date. A total of 3,500 trams and light rail vehicles from Bombardier are on order or operating in nearly 100 cities in more than 20 countries around the globe.

World record locomotive for Brazil

Stadler Rail and the Brazilian company MRS Logística have celebrated the unveiling of by far the largest and most powerful rack-and-pinion locomotive ever built. MRS ordered seven of these locomotives with a total value of around CHF 60 million (including reserve materials) from Stadler for the freight line from São Paulo to the Port of Santos. The first two vehicles will be transported to Brazil via Basel and Antwerp over the next few weeks. With this order, Stadler Rail has been able to demonstrate its innovative power and its leading global position in the construction of rack-and-pinion rail vehicles.

The seven powerful rack-and-pinion freight locomotives are needed by the large Brazilian cargo company MRS Logística S.A. primarily for heavy iron ore trains. The freight line from Sao Paulo to the Port of Santos is a 1,600-millimetre broad-gauge track with an approximately 10-kilometre long ramp, which is fitted with the Abt rack system. With a power of 5,000 kW,

760 kN tractive force at starting and a length of almost 19 metres per locomotive, these are the largest and most powerful rack-and-pinion locomotives ever built. Two of these locomotives in double traction will have a towing capacity of maximum 850 tonnes on the 104‰ ramps, making them 50% more powerful than those currently in use.

Peter Spuhler, owner and CEO of Stadler Rail Group, is delighted with the successful construction of these unique locomotives: "We are proud to have built the world's most powerful rack-and-pinion locomotive. Thanks to our experienced engineering team, we are in a position to offer every customer tailor-made solutions."

The four-axle locomotives have two bogies, which in turn each have two pinion transmission systems engaging with the triple-lamella Abt rack. Support is provided by two separate adhesion transmission systems, which contribute about 25% of the traction as the train goes uphill. The regenerative ability of modern traction equipment also enables massive energy savings to be made on the 3 kV DC line.

Bombardier Wins Contract to Supply 260 New Metro Cars for the San Francisco Bay Area

"Fleet of the Future" to offer highest levels of quality, performance and reliability

Bombardier Transportation has announced that it has signed a contract with the San Francisco Bay Area Rapid Transit District (BART) for the supply of 260 new rail cars. The order is valued at approximately \$631 million US (\$647 million CDN, 502 million euro). The contract includes a first option order for 150 cars that BART intends to order on June 25, 2012 and additional options which, if exercised, would bring the total number of cars ordered to 775 and the total value of the order to approximately \$1.5 billion US (\$1.6 billion CDN, 1.2 billion euro).

Designated by BART as its "Fleet of the Future", the new cars will be used to replace BART's entire existing fleet as well as for system expansion. They will offer a range of new features such as more doors to make

boarding faster and easier; more priority seating for seniors and people with disabilities; more comfortable seats; bike racks; energy efficient lighting; interior and exterior digital displays showing passenger information; an improved public address system, including automated announcements; and improved onboard security cameras.

The cars will be assembled at Bombardier's manufacturing plant in Plattsburgh, New York. The Plattsburgh facility is Bombardier's center for rolling stock production in the United States. In operation since 1995, it has produced more than 3,000 passenger rail cars and locomotives now in service across the United States.

The cars will be powered by highly reliable BOMBARDIER MITRAC propulsion equipment with energy-efficient inverters. The cars' onboard systems will be integrated by Bombardier's industry-leading MITRAC train control and management system with internet protocol technology. Bombardier's Propulsion and Controls business unit located in Pittsburgh, Pennsylvania will supply the propulsion and control equipment.

Delivery of 10 pilot cars is scheduled to take place in the spring of 2015, followed by comprehensive testing of the pilot cars on the BART system, then delivery of the 250 remaining production series cars between early 2017 and the spring of 2019.

Weakness of the euro hits Stadler hard



Stadler Rail Group's turnover amounted to CHF 1.39 billion, around CHF 300 million above last year's figure. Turnover for 2012 is forecast at around CHF 2.25 billion. Growth in 2011 and 2012 is mainly down to the large number of orders received in 2008 (CHF 2.6 billion) and 2010 (CHF 2.9 billion). Last year, Stadler received orders to the value of around CHF 1.3 billion, roughly equivalent to the 2009 figure but well below the record years of 2008 and 2010.

In order to secure increased capacities and job numbers in the medium term, Stadler needs to fight even harder for orders, given the strength of the Swiss frank. Two thirds of the current workforce, which comprises 4,500 employees, work in Switzerland. However, around two thirds of production from the Swiss Division go to the export market, where currency shifts have made it more difficult to win tender processes.

Because of the strength of the Swiss frank, Stadler is also at a severe disadvantage against competition from the Eurozone when it comes to invitations to tender in Switzerland. This proved the case in the 2011 invitation to tender for Basel-based transport company BVB: Stadler lost out because of the euro exchange rate, as the winning competitor had production sites in Eastern Germany and Austria and could submit a quote at a much lower rate. This decision is a clear signal that Swiss industry faces tough times ahead given the current exchange rates, not only in the export market but also in the Swiss domestic market.

Successful sales in 2011

Despite the difficult currency situation, Stadler could still report some successful sales. These include:

- Regionalverkehr Bern-Solothurn (RBS) is buying a further eight low-floored multiple-unit express trains (NExT).
- Ferrovie Appulo Lucane (FAL) has placed an order with Stadler for nine narrow-gauge trains. FAL operates a network to the south-west of Bari.
- Südtiroler Landesverwaltung ordered another eight 6-carriage FLIRTs and an additional eight intermediate cars for the existing 4-carriage FLIRTs which are already in service.
- Junakalusto Oy is exercising an option for nine FLIRTs for the Helsinki commuter railway system.
- Matterhorn Gotthard Bahn has ordered 7 additional KOMET multiple-unit trains, 4 articulated trains and 11 low-floored intermediate cars.

Successful sales in Germany

Stadler Pankow has successfully achieved a number of important sales over the last year. The following orders merit special mention:

- First order from Great Britain: six Variobahn trams for Tramtrack Croydon, a subsidiary of Transport for London
- 35 FLIRTs for Veolia (for use in the Rosenheim e-network in Bavaria)
- 28 FLIRTs for Deutsche Bahn (for use on various routes in Rheinland-Pfalz)
- Framework contract with Deutsche Bahn for 400 vehicles by 2018

These successes follow a string of good sales results for the German Division in the previous years. Based on the good prospects, Stadler Pankow opened two additional production sites in 2011: the Berlin-Reinickendorf site produces and paints vehicle body shells, while a second final assembly works has been opened in Berlin-Hohenschönhausen.

New markets

Given the dwindling prospects in the Eurozone, establishing new markets is becoming increasingly important. Stadler sees great potential in the countries of the former Soviet Union. Orders received earlier from Belarus and Estonia are already being processed. The first order from Russia was received in mid-2011. Russian group Transmashholding (TMH) ordered 100 four-axle diesel drive components, with two delivered in advance as prototypes. The drive components are to be fitted into 50 trains produced by TMH subsidiary Metrovagonmash for the Russian railway company RZD. The customer anticipates that part of the added value is generated at local level. This requirement should be taken into account when trying to attract further orders from the Russia/Belarus/Kazakhstan economic and customs union. Stadler is expecting an order for an additional 19 trains for Belarus in the third quarter of 2012, and is therefore looking at setting up a production site in Minsk.

Roll-out of first GTW for Vechtdallijnen (NL)

Arriva and Stadler Rail are celebrating the joint roll-out of the first electric articulated multiple-unit train (EMU-GTW) in the Dutch provinces of Overijssel and Drenthe. In mid-2010, Arriva Netherlands placed an order with Stadler for 14 EMU-GTWs for the Vechtdallijnen concession. These vehicles have been developed in many areas and, as such, are improved versions of the Arriva GTW trains that are already successfully in service.

Arriva is one of the largest public transport service providers in Europe. Their buses and trains carry more than 1.5 billion passengers in 12 countries every year. The company was taken over by Deutsche Bahn in August 2010. In June 2010, Arriva Netherlands ordered a total of 38 GTW articulated multiple-unit trains from Stadler, of which 24 were for the province of Gelderland and the remaining 14 for the provinces of Overijssel and Drenthe. This brings the total number of GTW trains ordered by Arriva for use in various parts of the Netherlands since 2005 to 99.

Christian König, Sales Director Switzerland and Netherlands of Stadler Rail Group, is pleased about the development: "We are proud to bring Stadler state-of-the-art low-floored vehicles into service in two other provinces in the Netherlands. Once again, Stadler was able to process the order quickly. This was only possible thanks to the real commitment and enthusiasm of all those involved. I am very grateful to all of them."



Anne Hettinga, Managing Director Arriva Netherlands: "It is a milestone in the implementation when the first trains coming out of the factory. With the Roll Out we let our clients see that we are on schedule with the implementation. In additition, our clients can see with their own eyes that we are on schedule and can judge that the trains to all the requirements and extra offers we have done. "

The vehicles are essentially based on the various EMU-GTW trains delivered to Arriva since 2005. The trains are air-conditioned and 75% low-floored. Legroom is very generous in all compartments. Up to four trains can run at the same time in multiple-unit operation. The vehicles are made of lightweight aluminium. The vehicles have public WLAN, five TFT monitors in each carriage a working area and a silence area. The trains are also designed in accordance with the TSI standard for disabled access.

"50 years of Army Sports"

Specially designed Taurus engine now advertises services in Austria for the Army-athletes

On the occasion of the anniversary "50 years of Army Sports", Transport Minister Doris Bures, Defence and Sports Minister Norbert Darabos and ÖBB-Holding AG board member Franz Seiser baptized a specially branded ÖBB Taurus locomotive. The sides of the locomotive decorated stylized military-athletes from various disciplines and the emblem of the Austrian army. "With the ÖBB we have strong partners who support us in promoting the sport in Austria, it depicts the motif that adorns the Taurus engine," said Norbert Darabos, Federal Minister of Defence and Sports. Transport Minister Doris Bures praised the excellent cooperation between ÖBB and the Federal Army. Conversely, the army supported the train, like last winter's problems with the large amounts of new snow.

"And especially on a sporting level, the country benefits from close cooperation between ÖBB and army - because without these two institutions, many major sporting events in Austria would be unthinkable," says Bures.

"The branded locomotive underlines the close long-lasting relationship between the ÖBB and the Austrian Army. In crisis situations such as last winter with arctic cold and tons of snow in western Austria are the Armed Forces has helped quickly, efficiently and energetically. In health management, we have been cooperating for almost a decade with the professional athletes of the Armed Forces. With joint projects, we thus enhancing well-being and motivation of our employees, "said Franz Seiser, CEO ÖBB-Holding AG.

Armed promotes competitive sports

The Austrian Federal Army supports competitive sports for decades and offers the Army Sports Centre every year around 300 athletes a social and financial basis for their athletic and professional career.

Successful cooperation in health management

The ÖBB-Technische Services GmbH and the Austrian Armed Forces have been working closely together since 2003. The basis for this



partnership between ÖBB and the Army Sports Center is the already established health project "Fit4You". The aim of this project is to increase under the ÖBB staff awareness of health, nutrition, exercise and well-being, to increase motivation and performance. As before, the mutual support available for projects and exchanges of know-how in the foreground. In the "train the trainer" training of the ÖBB, in the ÖBB-health promotion program "back-Fit" and in many common sports such as ski weekends or TS employees Olympics demonstrates the excellent cooperation and professionalism of the staff of the Army Sports Centre in terms of Sports and health promotion.

Photo: Defence and Sports Minister Norbert Darabos, Transport Minister Doris Bures, board of ÖBB-Holding AG Franz Seiser, General Edmund Entacher, army and athletes at the christening of the "50 years of Army Sports" locomotive. ÖBB / Zenger

Alstom will supply 46 additional Coradia Nordic regional trains to the Swedish operator Storstockholms Lokaltrafik



Alstom Transport has received an order from the Swedish Public Transport Authority AB Storstockholms Lokaltrafik (SL) for 46 new Coradia Nordic regional trains. This order worth €440 million is part of a frame agreement signed in 2002 between Alstom and SL. It brings the total number of Coradia Nordic trains ordered by SL to 129.

This order will allow SL to replace a part of its aging fleet and extend its network. Alstom will start to deliver the 46 trains to serve the lines of the greater Stockholm area in 2016.

"This new order from SL is a strong sign of trust and confidence in Alstom Transport's know-how and solutions to secure a sustainable public transport service for the city of Stockholm," said Henrik Anderberg, Managing Director of Alstom Transport in Sweden.

"We are convinced that the arrival of new and modern train sets in the commuter train network of the greater Stockholm area will contribute to increase our competitiveness and provide a higher level of customer satisfaction", commented Anders Lindström Vice President of SL.

Coradia Nordic is an EMU-type (Electric Multiple Unit), six-car, regional train that can run at a speed of 160 km per hour. The train designed for SL will be equipped with the latest ERTMS1 signaling technology and meet all the latest interoperability requirements. Its distributed power optimizes the braking and acceleration of each carriage reducing energy use. With an approximately 95% rate of recyclability, the train is environmentally friendly. Built to stand up to rigorous winter conditions, operating at -35% C, Alstom Coradia Nordic regional train is particularly well-suited to Scandinavian climates.

Coradia Nordic regional train is designed to meet all passengers' requirements in respect of comfort, access and mobility. Its lower floors and absence of steps facilitate access to passengers, especially those with reduced mobility. With roof-mounted traction equipment, the train offers larger space for comfortable seating.

Coradia Nordic regional trains for SL will be manufactured in Alstom's centre of excellence for regional trains in Salzgitter in Germany. Since 2002, Alstom has sold 239 Coradia Nordic regional trains in Sweden.

1 - ERTMS: European Rail Traffic Management System is a system for the management and control of the rail traffic on the lines of Trans-European Networks

Deutsche Bahn and Alstom sign an agreement for 38 regional trains in Germany

Deutsche Bahn AG (DB) and Alstom Transport have signed a contract worth €160 million for the supply of 38 additional Diesel regional trains Coradia Lint in Rhineland-Palatinate, Hesse and Baden-Württemberg. This order includes 14 train sets with 112 seats as part of a frame agreement signed in 2008 and 24 train sets with 160 seats as an option from a contract signed in 2011. The trains will start commercial service in the Southwest Diesel network of Germany in 2015. The Coradia Lint trains will be manufactured at the Alstom Salzgitter site, in Lower Saxony.

"We consistently invest in the modernization of our rolling stock for the benefit of our customers and our employees. We therefore need to strengthen our competitiveness and ensure our sustainable business success. For the past year alone, we invested nearly eight billion euros in new trains", said Dr. Rüdiger Grube, Chairman and CEO of Deutsche Bahn.

Coradia Lint can run at a speed of up 140 km/h. This train meets the most stringent emission standards. 90% of the particle emissions are eliminated thanks to exhaust gas cleaning and inner-engine measures. An innovative engine management leads also to Diesel fuel savings and the consequential reduction in CO2 emissions of around 10%.

These trains will be equipped with air conditioning system and a low floor to facilitate access on board. For reduced mobility passengers, each train set will provide two wheelchair spaces, suitable toilets and intercom units as well as a ramp for bridging the gap between the train and the platform. Equipped with monitoring cameras, the new trains will increase safety.

"This contract for the Southwest Diesel Network, is another success for the Coradia Lint. With more than 650 trains already sold in the past fifteen years, we offer Deutsche Bahn and its passengers a proven and environmentally friendly solution. This new contract further strengthens our partnership with DB Regio", said Henri Poupart-Lafarge, President of Alstom Transport.



The Alstom-Bombardier consortium will supply 70 duplex trainsets for the RER A line

On 29 June 2012, the RATP(1) announced that they will place an order with the Alstom-Bombardier consortium for 70 additional duplex trainsets, known as MI09s. The total amount of the contract is €1 billion, including around €700 million for Alstom, and will be booked in the second quarter of the Fiscal Year 2012/13. Two thirds of the project is financed by the RATP. It is sponsored and the remaining one third financed by the Ile-de-France Transport Authority (STIF). The order corresponds to the exercise of an option in the contract signed in April 2009 for an initial firm order of 60 MI09 trainsets.

The April 2009 order is currently being executed. The first MI09s, in service since December 2011, have already covered a half-million kilometres. Like the first MI09s, the 70 additional trainsets will operate on the RER A of the Ile-de-France Region network. Delivery will start in 2014 and be completed in late 2016.

"I am delighted that the RATP have again placed their trust in Alstom. This project will strengthen the development of French industry throughout the regions", said Henri Poupart-Lafarge, President of Alstom Transport.

The design of the MI09 gives priority to seating capacity, smooth traffic flow and passenger comfort. Each of the double-deck trainsets – the only ones able to accommodate a million passengers a day – can transport up to 1,300 people. The 112-metre train is made up of five cars equipped with three large doors to optimise the exchange of passengers in stations. The maximum speed of 120 km/h assures improved speed and flow on the line. For passenger comfort, the lighting creates a calm visual mood. The onboard screens display information on destination, stations served and correspondences. Dedicated facilities are available for people with reduced mobility. The interior arrangement, which provides a full view of both decks when entering the train, and the onboard video-protection system ensure enhanced passenger safety.

The new MI09 trainsets are equipped with a more efficient traction system to reduce energy consumption and generate less brake dust thanks to increased use of electric braking. Furthermore, the trainsets will feature a system to transmit train operating parameters in real time to maintenance teams, allowing them to anticipate which maintenance operations will be required. The MI09 is manufactured in France. Since the contract signing in April 2009, more than 200 people (engineers, technicians, draftsmen, workers, etc.) have been working on it at the Alstom site in Valenciennes, the centre of expertise for metros and Ile-de-France RERs (other contracts under way: MF01, MP05).

Four other Alstom Transport sites in France contribute to the MI09: Le Creusot for bogie manufacture, Ornans for engines, Tarbes for traction equipment and Villeurbanne for onboard computer systems. In all, some 500 Alstom employees work on the MI09 and 1,500 employees of suppliers are supporting Alstom in this project. The December 2011 entry into commercial service was in line with our commitments and the excellent performance of the delivered trainsets in operation demonstrate the capabilities of the French rail manufacturing industry in the service of operators and French transport organisation authorities.

In addition, RATP has stated its desire to order eight additional metro trainsets from Alstom in accordance with the decision taken by STIF on February 8, 2012. This new order, which is designed to prepare for the extension of Line 14, will later be the subject of an amendment to the contract dated 2005. These rubber-tyred metros, called MP05s, are already in operation on Line 1 of the Paris network.







Above: West Coast Rail's Class 33 207 "Jim Martin" had been carrying out most of the shunting of exhibits for Railfest, *Brian Battersby*

Top Right: South Eastern Trains Highspeed Class 395 019 is seen in the rain which sadly marred quite a few days at the NRM. *Brian Battersby*

Bottom Right: Kerr Stuart 'Wren' 0-4-0 Tank No. 4256 "Peter Pan". Richard Hargreaves

Below: Only just released back into traffic following overhaul, DRS Class 37 419 gleams. *Richard Hargreaves*









Above: GWR 4-6-0 Hall Class No. 5972 "Olton Hall" or Hogwarts Castle as it is known to many. John Alsop

Top Right: Looking at the sky, Southern Railway Class V Schools 4-4-0 No. 925 "Cheltenham" is about to get a soaking. *Andy*

Bottom Right: One of the many DRS exhibits at Railfest, Class 20 312. TeesideAnth

Below: London Midland and Scottish Railway (LMS) Princess Royal Class No. 6201 "Princess Elizabeth" is seen still carrying the headboard from its part in the Thames pageant. *John Alsop*

















Above: London, Brighton and South Coast Railway A1X Class No. 55 "Stepney" visiting from the Bluebell Railway. *Richard Hargreaves*

Top Left: No. 2150 was built by Peckett & Sons, Bristol, in 1954 and was one of only three of the OQ class constructed and owing to its huge size was named "Mardy Monster". *Brian Battersby*

Bottom Left: Probably the smallest standard gauge steam loco in the world, No. 1 "Gazelle", built in 1893 by Alfred Dodman, King's Lynn as a 2-2-2WT for William Burkett. *Richard Hargreaves*

Below: English Electric Class 50 008 "Thunderer" is seen inside the "tent". Brian Battersby















Above: Having carried the advert for Railfest on its bodysides for several months, I suppose Class 56 312 had to put in an appearance. *TeesideAnth*

Top Left: Ex Virgin Trains "Thunderbird", and about to enjoy a new life with DRS is Class 57 309, fresh out of works. Class47

Bottom Left: One of the many on-track plant to be featured at Railfest is this Network Rail rail grinder. *TeesideAnth*

Below: Another piece of OTP was this Network Rail Snowblower. TeesideAnth











