

# Railtalk Magazine *Xtra*

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# 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 travels to the Nene Valley Railway near Peterborough for their diesel gala, which despite the weather was an excellent event..

Well I must say that after my outburst last month regarding a certain preserved railway that omitted to stop at a station, I was very surprised that this month I would be mentioning the exact same thing happening on the East Coast main line, where as I was waiting for the train home after attending the Nene Valley gala, a railtour charter which had been scheduled to set down at Peterborough, went straight through the station. Perhaps this is not such an uncommon occurrence after all?

I'm off to Hamburg this month, and in particular Hamburg-Harburg, a fantastic place for freight with plenty of container trains heading in and out of the close by ports, but if you can't get abroad I can highly recommend one of the numerous webcams that are now available and stream real time video. Try [www.eisenbahnlivecam.de](http://www.eisenbahnlivecam.de) for a number of rail related webcams, and become an armchair enthusiast.

As always thanks for reading the magazine 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 Kendall, Laurence Sly, Colin Hart, John Coleman, Steamsounds, David Mead, Piotr Kozlowski, Derek Neesham, Roger Williams, Mark Bearton, Andy Pratt, Gary Smith and John Hitchen.*

Front Cover: On April 13th, FS Class D445.1025 approaches Castelfiorentino whilst working Regional train No. 11779, 15:10 Firenze S.M.N - Siena. [Laurence Sly](#)  
This Page: A NOB service to Westerland is seen crossing the lifting bridge at Husum, April 21st. [Steamsounds](#)

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## Submissions

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

**[entries@railtalk.net](mailto:entries@railtalk.net)**

Please include a detailed description and credits.

## Railtalk Magazine Xtra

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immer und  
überall -  
schnell

  
Rauchfreier Bahnhof  
Smoke-free Station

GRUNDIG

Snacks

Seen just a few days after its transfer to DB Fernverkehr, Class 140.585-1 is seen on the blocks at München Hbf having worked an ECS into the terminus on January 11th. [Anton Kendall](#)



An FS Class D445 loco propels Regional train  
No. 11764, the 13:18 Siena - Firenze S.M.N  
towards Castelfiorentino on April 12th. *Laurence Sly*



On March 4th, Class 1141-012 passes  
Dudo Selo with a liner train heading for Zagreb's  
Ranzimi Yard. [Steve Madden](#)



An impressive line up of locomotives at  
Klostermansfeld on the Kreisbahn -  
Mansfelder Land line, lead by 98 80 3 312 031-8.



*Anton Kendall*



Trenitalia Class D445-1147 and another D445  
locomotive propel the 08:18 Siena - Firenze  
S.M.N away from Poggibonsi on April 13th. *Laurence Sly*



Croatian Class 2044-015 passes Podgorje with train  
No. 783, 08:29 Koprivnica to Osijek  
on March 5th. [Steve Madden](#)



Erix units Nos. 648.478 and 648.491 stand at  
Soltau in the early morning of December 17th  
2012 with workings to Uelzen and Bremen.



*Anton Kendall*



FS Class D445-1073 approaches Castellina  
in the Chianti-Monteriggioni region whilst working  
Regional train No. 11755, 09:10 Firenze S.M.N - Siena  
on April 13th. [Laurence Sly](#)





At Cakovec in Croatia on March 7th, two ends of the GM design can be seen as Class 664-112 in Slovenian livery and Class 2062-051 in the blue of Croatian Railways, await departure. [Steve Madden](#)



Top Right: Steam loco No. 534.0432 heads a raittour through the Vallachian area from Luzna Valasska towards Polanka on May 5th. [Ivo Rušák](#)



Bottom Right: As if to prove steam heat still exists in FYR Macedonia, Class 661.238 blows off in the platform at Skopje on February 25th, with train No. 660, the 08:05 to Kicevo, while alongside Class 460.002 waits to depart with train No. 336, the 08:20 to Beograd. [Andy Pratt](#)



Below: An early morning regional service is seen ready to depart Köln Hbf. [Stearnsounds](#)



Top Right: A pair of work stained CD Cargo Class 240s, with Class 240.050-5 leading are seen waiting to depart Veseli nad Luznici on April 11th. [Andy Pratt](#)



Bottom Right: On April 11th, Class 754. 006 arrives at Ceske Velenice station with train No. Os 2155, the 09:01 arrival from Ceske Budejovice, this train would normally be worked by a Class 242 electric, however engineering works had resulted in the OHLE being isolated and the Goggle working instead with the service starting from Nova Ves u Ceskych Budejovic and bus replacement between there and Ceske Budejovice. [Andy Pratt](#)



Below: SBB Re 6/6 No. 620.088 returns to daylight at Göschenen after passing through the Gotthard Tunnel with a northbound freight.



[Steamsounds](#)



On hire to DB, Vossloh Class 98 80 0 650 107-2 works the empty sleeper stock out of Berlin Lichtenberg on December 14th 2012. [Anton Kendall](#)



Class 1142-006 approaches Dugo Selo with train No. 2208, 14:00 Koprivnica to Zagreb service, March 4th.

*Steve Madden*



Top Right: On May 26th, Class 122.007 heads a Slovakian bound cargo working to Jablunka, seen here as it passes through Vsetin. [Ivo Rušák](#)



Bottom Right: CD Class 749.100 is pictured stabled between duties at Tabor on April 11th. [Andy Pratt](#)



Below: A roadside view of the Wuppertal Schwebebahn near Vohwinkel on April 21st. [Stearnsounds](#)



Wuppertal Schwebebahn No. 2 is seen arriving into  
Robert Daum Platz on March 6th.



[Railwaymedia](#)





StLB operated Taurus Class 1216.960-5 leads MGW operated Taurus Class 183.500-8 through Salzburg Gnigl on a china clay slurry working, January 8th. Of note is that the first 3 wagons are UK gauge vehicles. [Anton Kendall](#)



Top Right: Class 661.238 waits patiently for departure time at Kicevo with train No. 663, the 12:18 to Skopje on February 25th. [Andy Pratt](#)



Bottom Right: Elderly Ceske Drahy Class 460.082 and 460.021 are seen passing Luzna Lidecko on May 27th. [Ivo Rušák](#)



Below: The Tatra Cog Railway runs the short distance between Strba - Strbska Pleso in the High Tatra mountains in Slovakia. Unit 405.951 waits at the mountain station of Strbska Pleso before descending to Strba, the cog rail is just visible between the running rails. [Andy Pratt](#)



Top Right: On April 11th, CD Cargo Class 771.182 is seen in the yard at Veseli nad Luznici awaiting departure with a car train towards Ceske Velenice. [Andy Pratt](#)



Bottom Right: A work stained Class 752.040 is seen stabled between duties at Trebisov on February 15th. [Andy Pratt](#)



Below: Unit No. 1082-4 is seen at Berlin Zoologischer Garten U-Bahn station with an Eastbound Line 2 service, April 25th. [Steamsounds](#)



PKP Class EP09-006 is seen at Poznan Główny  
having arrived from Warszawa Wschodnia with  
train No. IR18120, April 18th. [Steamsounds](#)



FS Class D445-1037 passes Ponte a Elsa whilst working  
Regional train No. 11751, 16:10 Firenze S.M.N - Siena,  
April 13th. [Laurence Sly](#)



Ceske Drahy's Class 742.433-6 drags another Class 742 through Česke Těšín on April 16th.



*Class47*



Top Right: JHMD narrow gauge Class 705.015 arrives at Lovetin station with the 11:50 Obratan - Jindrichuv Hradec with it's single coach in tow on April 11th. [Andy Pratt](#)



Bottom Right: Carrying the relatively new Najbert livery, CD Class 460.023 is seen heading a Jablunka - Vsetin service on May 30th. [Ivo Rušák](#)



Below: On April 26th, SNCB/NMBS Series 21 No. 2148 is seen ready to depart from Liège-Guillemins. [Steamsounds](#)



An unidentified Class D445 locomotive propels  
Regional train No. 11786 the 13:34 Grosseto -  
Siena through the Tuscan hills near Ponte D`arbia on April 14th.  
*(This spectacular location was reached with Tom Tom taking the  
photographer 3 miles down dirt tracks....only to find a tarmac road  
from the other direction!).* [Laurence Sly](#)



Top Right: On February 16th, Class 757.002 awaits departure from Kosice with train No. R814, the 13:25 to Bratislava Hl. St. [Andy Pratt](#)



Bottom Right: Slovakian Class 754.035 is seen at Trebisov on February 16th with train No. REX908, the 11:22 Humenne - Kosice. The Goggle will be taken off here to be replaced by an electric for the remainder of the journey. [Andy Pratt](#)



Below: Kirnitzschtalbahn tram No. 21 is seen at Bad Schandau on April 24th. [Steamsounds](#)





An ordinary service train for Poznan is seen arriving at Steszew as steam loco No. OI49-59 works train No. KW77331 Wolsztyn - Poznan Gl. It's a bit different from the usual DMU! [Steamsounds](#)



Top Right: Mallet lok 0-4-4-0T No. 99-5906 brings the stock of train No. 8965, the 13:57 departure to Hasselfelde into Gernrode station on February 10th. [Andy Pratt](#)



Bottom Right: The view from on board RE21083 from Flensburg Hbf to Hamburg Hbf with Class 112.143 approaching the Nord-Ostsee-Kanal (Kiel Canal) bridge which is reached using a spiral to gain height just south of Rendsburg, April 21st. [Steamsounds](#)



Below: A Hamburg Hochbahn Line U3 train is seen approaching Landungsbrücken on April 19th. [Steamsounds](#)





CD Class 742.280-1 is seen at Ostrava hl.n. on April 16th working a passenger service in the direction of Havířov. [Class47](#)



Top Right: On April 18th, line 10 tram No. 701 is seen at Most Dworcowy, Poznan.  
[Steamsounds](#)



Bottom Right: An unidentified Voith Maxima loco is seen shunting outside  
Göttingen station on February 8th. [Andy Pratt](#)



Below: A DSB ICE TD is seen on the train ferry from Rødby Farge to Puttgarden,  
April 20th. [Steamsounds](#)



Bulgarian Railways Class 46.221  
arrives at Pirdop with a Burgas to  
Sofia express on May 17th. [Mark Bearton](#)





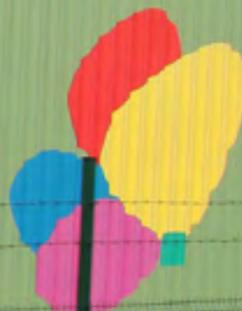
An SJ2000 tilting unit is seen arriving into  
København H. on April 20th.



[Stearnsounds](#)



 **Dalkia**  
Kolin



At the Dalkia power plant in Kolin  
Class 703.503-3 and 702.531-5  
are seen stabled on April 17th. [Class47](#)



On May 17th, Class 44. 063 leads the 18:00  
Plovdiv to Sofia, seen approaching Kosteneec.



*Mark Bearton*



Carrying the now rather scruffy looking Europa livery, DB Class 101.101 is seen at Köln Hbf on April 23rd. [Steamsounds](#)



Top Right: Hired by DB Regio for RB services between Eisenach and Halle (Saale) Hbf, MRCE Dispolok owned Class 182.533 is seen at Eisenach waiting to propel RB16179, the 16:13 all stations to Halle (Saale) Hbf service on February 8th. [Andy Pratt](#)



Bottom Right: DB DMU Class 648.268 passes under the impressive signal gantry protecting departures from Bad Harzburg on February 8th, with the 09:58 from Holzminden. Note the train already displays the destination for it's next working from Bad Harzburg. [Andy Pratt](#)



Below: A DB ICE unit is seen departing from Köln Hbf at sunset, April 22nd. [Steamsounds](#)



On May 17th, Class 07.032, standing in for an unavailable DMU, climbs out of Strelca working the 13:55 Plovdiv to Panagyuriste.

*Mark Bearton*



Top Right: Sri Lanka Railways diesel hydraulic Class W1 No. 658 passes under the lower quadrant signals on the approach to Nattandiya station with the 07:40 Maradana to Puttalam service (train No. 3411) on January 28th. [Dave Felton](#)



Bottom Right: Sri Lanka Railways diesel electric Class M7 No. 805 is seen at Paiyagala South station with the driver waiting patiently for the single line token while operating a southbound PW train on January 30th. [Dave Felton](#)



Below: An unidentified OBB Class 1216 heads south past Wolf whilst working EuroCity train No. 81, 07:31 Munich - Verona P.N, on May 23rd. [Laurence Sly](#)





On May 26th, ADIF locomotive No. 310.042 is seen basking in the evening sun at Murcia Mercancias, a freight yard just outside the city of Murcia in South East Spain. This is one of a series of 60 locomotives constructed by the company Macosa in Valencia between 1989 and 1991. It is operated by ADIF (Administrador de Infraestructuras Ferroviarias), the Spanish equivalent of Network Rail.

*Steve Dennison*



An OBB Class 1216 crosses the viaduct at Peschiera del Garda with a freight train to Lonato, May 20th.



*Laurence Sly*



AWT's Goggles Class 753.724-4 heads through Ostrava hl.n. on a sunny April 16th with a rake of empty coal wagons. [Class47](#)



On May 18th, Class 87.020-4  
is seen stabled at Pirdop.  
*Mark Bearton*



FS Class D445-1148 passes Bottegone whilst  
working Regional train No. 11747, the 06:20  
Firenze S.M.N - Grosseto. [Laurence Sly](#)



In the attractive advertising livery of  
Nový Smíchov, Czech tram No. 7262 heads  
towards the Žižkov district of Praha with service No. 9  
on April 17th. *Class47*



NADMĚRNÉ PĚVY



← Siwecova

LEKÁRNA VIKTORIA

Obchodní centrum  
NOVÝ SMÍCHOV

7262

SPOJOVACÍ

9

9

819

P

OBČEV  
SOŠEK

## Unified brand for the transportation of trucks by rail - Rail Cargo Group focuses on new, more efficient structures for the rolling road



So far, the rolling road rail transport - which is the carriage of all truck units on special wagons - has been sold under the brand ÖKOMBI GmbH. With the merger of ÖKOMBI GmbH into Rail Cargo Austria (RCA), ÖBB Group has set a further milestone in the organisational simplification of the freight transport division successfully operating on the European market. The merger enables even more streamlined structures and effective, transnational cooperation in a wide range transport of goods by rail.

### From ÖKOMBI to Rail Cargo Austria

ÖKOMBI GmbH was for decades, the operator in accompanied combined transport, with Europe's largest provider of the rolling road. Approx 300,000 truck units were shipped last year of the ÖKOMBI by Austria and in several foreign target destinations - and the most environmentally friendly on the track. To act as a strong, long-term partner for our customers, we put all the power from continuing to simplify the company structure. The clear objective of Rail Cargo Group is to further advance the ÖBB freight and expand market share. The integration into the Rail Cargo Austria AG will also bring through simplification, transparency and merging of tasks also economic benefits. The services for our customers and partners around the rolling road will remain unchanged.

Photo: © ÖBB / Christoph Posch



CD Class 754.075-0 is seen stabled at Stare Mesto on April 20th. [Class47](#)



## Bombardier Wins New Order from Transport for London



Rail technology leader Bombardier Transportation has announced that it has signed a contract with Transport for London (TfL) to provide 57 additional BOMBARDIER ELECTROSTAR rail cars for the London Overground network. The order is part of Transport for London's programme to increase passenger capacity on the successful London Overground network – the 57 new cars will be used to turn existing four-car trains into five-car versions. The new units will be supported under an existing maintenance contract.

The order is valued at approximately £88 million GBP (105 million euro, \$137 million US).

Delivery of the 57 new ELECTROSTAR Class 378 cars will start in late 2014 and finish in 2015. They will be built at Bombardier's facility in Derby. The 75 mph Class 378 units are specially designed for suburban operations with passenger comfort and safety in mind. Walk-through carriages provide more standing room and space for passengers, reflecting the type of short trips most passengers make on the network. The vehicles also include CCTV and air conditioning. The 378s are part of the proven and highly reliable ELECTROSTAR family of Electrical Multiple Units which are in daily passenger service with other UK train operators, including c2c, Southeastern, Stansted Express, and Southern Railways. The prestigious Gautrain railway in Johannesburg, South Africa, also operates ELECTROSTAR trains.

Des McKeon, Commercial Director UK, Bombardier Transportation said: "This contract underlines the strength of the long-standing relationship between Bombardier and Transport for London. Bombardier is playing an important role helping TfL deliver increased capacity on the network. As well as delivering new, reliable trains we are improving availability and reliability together with the operator through our fleet maintenance offering. Bombardier helps keep

thousands of passengers moving in London and across the UK every day."

Bombardier Transportation supports its customers to minimize operational costs and maximize revenue generation over their assets' whole lifetime, while ensuring the highest levels of passenger safety and comfort. It offers services and support to fit each customer's exact requirements, including full train maintenance, materials and logistics programmes, modernisation, re-engineering and overhaul of vehicles and components.

Bombardier proved its global expertise during the London 2012 Olympics, when maintenance teams and support functions worked around the clock to ensure that more than 800 Bombardier trains on nine key routes serving London were able to meet the increased demand. Supported by Bombardier teams, London Overground played a key role in transporting visitors to the Olympic Park in Stratford.

Bombardier is at the forefront of developing cost-effective solutions to move more people and goods than ever before efficiently within and between cities. In order to sustain global



economic growth while ensuring the health and quality of life of citizens, cities the world over are looking for smarter and more environmentally friendly forms of mass transit compared to individual car transportation. Bombardier's globally proven portfolio of vehicles and solutions is delivering a future of interconnected mobility that is both sustainable and convenient for customers and passengers.



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## Alstom and its Russian partner TMH to create Russia's first dual-voltage electric freight locomotive for the Russian Railways



Alstom, its Russian partner Transmashholding (TMH) and the Russian Railways (RZD) have entered into an agreement for the development of the first Russian dual-voltage freight locomotive called "2ES20". The dual-voltage, double-section mainline electric locomotive with asynchronous traction drive, will be able to run on both 3kV and 25 kV current. This will allow eliminating loco swap at station where the current is changed over, which will save time and resources.

The agreement was signed recently in presence of Alstom's CEO Patrick Kron by RZD President Vladimir Yakunin, TMH President Andrey Bokarev and Alstom Transport President Henri Poupart-Lafarge during the VIII International Railway Business Forum "1520(1) Strategic Partnership" in Sochi (Russia).

The agreement sets up the foundation of a team work to prepare and validate the technical design of the 2ES20 locomotive, expected to be finalised by September 2013, while the loco's first prototype is expected to be ready for testing in March 2014. The delivery of 2ES20 electric locomotives to RZD is scheduled for December 2014.

"A dual-voltage mainline electric locomotive is a modern solution, brand new for Russian industry of freight operations", said A. Bokarev. "Its application is able to considerably reduce the time for goods traffic in critical sections of the rail network. We expect the introduction of dual-voltage electric locomotives in the network to significantly increase the efficiency of the railway transport".

"This is the third locomotive project we are implementing in Russia with our partner TMH thanks to our fruitful cooperation. This new and high performing locomotive will enhance freight operations in the country as well as in the 1520 market. This project is part of Russian Railways plan to modernize 20,000 locomotives by 2030 and I am particularly proud to know that Alstom and TMH are considered as trusted strategic partners to support its ambitious project" said Henri Poupart-Lafarge.

The design and engineering of the new electric locomotive and its key components, including traction equipment, will be performed by TRTrans, the engineering company jointly managed by Alstom and TMH in Moscow and Novocheerkassk.

The production of the new locomotives will be done at Novocheerkassk Electric Locomotive Plant (NEVZ, part of Transmashholding). There, in April 2013, Alstom and TMH inaugurated their new joint production site of RailComp, dedicated to asynchronous traction drives and other key components. The best-in-class traction and other key components for this new locomotive will be produced in RailComp.

Locomotives developed by Alstom and TMH are among the most powerful in the world, meeting local requirements of Russia and other 1520 countries. TMH and Alstom together are currently executing the contracts on the supply of 400 locomotives to Russia and 295 locomotives to Kazakhstan.

(1) 1520 mm track gauge for the CIS region (Russia, Kazakhstan, Ukraine...)

## Alstom to provide 14 regional trains to AKN



Alstom has been awarded a contract worth around 60 million euros by the private operator AKN Eisenbahn AG for the supply of 14 Coradia Lint regional trains to run in the Northern Germany, connecting the cities of Hamburg, Elmshorn, Neumünster and Norderstedt in the federal state of Schleswig-Holstein.

With 9.5 million passengers transported per year in the rapidly growing environs of the city of Hamburg, the second largest city in Germany, AKN wanted to renew its actual fleet in order to enhance its transport capacity. The new trains will circulate on a 131 km-long network and serve 48 stations.

The Coradia Lint train ordered by AKN is diesel multiple-unit (DMU) and can run at a maximum speed of 120 km/h. Equipped with three engines, the train can accelerate more efficiently. It is also equipped with an intelligent traction and operation management, meeting the currently applicable most stringent exhaust emission standards.

The trains offer an overall transport capacity of around 350 passengers. For more fluidity in the heavy frequented suburban traffic, the 54 meter long train is equipped with four doors to ease entry and exit. To offer comfort to passengers including those with reduced mobility, the trains offer spaces for wheelchairs or strollers, intercom and a gap bridging between the train and the platform. In addition, the train is equipped with an air conditioning system. To increase the feeling of safety, the train is equipped with monitoring cameras. "With nearly 750 trains sold in the last fifteen years, commuters of the suburban area of Hamburg can be assured to travel aboard reliable, safe and environmentally-friendly trains" said Dr. Martin Lange, member of the board of Alstom Deutschland AG.

"The procurement of new vehicles is an elementary step for our company: The new Alstom vehicles will replace our old vehicles from the second half of the year 2015. With a lifetime of forty years, the present vehicles are indeed very old and loud and do not offer enough passenger comfort", Wolfgang Seyb of the AKN Management Board expresses the importance of the new vehicles to the Kaltenkirchen company.

The new trains are scheduled to be delivered in the second half of 2015 and will be manufactured at Alstom Salzgitter site in Germany.



## Video surveillance with ÖBB for passenger safety



To ensure the security of 1.3 million passengers every day on ÖBB services, ÖBB is to apply a multi-stage safety concept. Part of this concept is the video surveillance at the large stations and on modern commuter trains. Recordings on trains are stored up to 48 hours and recordings at stations up to 120 hours. These periods correspond to the valid data protection decision of the Federal Chancellery.

The ÖBB are legally obliged to provide the police video data for detection of offenses available. This can happen to the seizure of certain videos only by means of a prosecutor's order. In practice, the investigators will pass a hard drive with a confirmation of receipt. There is no automatic access external third parties to the stored data.

ÖBB provide a number of measures for the safety of passengers. The main measures are:

At major stations video cameras are used, additionally ÖBB security personnel are provided. In some stations, such as Wien Westbahnhof, Vienna Stephan's, Vienna Franz-Josef-Bahnhof Wien Meidling a police station is located on the station.

Smaller stations are frequented by mobile ÖBB security personnel. In many Park & Ride facilities, parking for women is available in the immediate vicinity of the entrances and exits. Emergency phones on some platforms can be used by passengers at any time if required.

ÖBB trains are partially equipped with video cameras and emergency call stations. Addition, there is also train staff for security questions. In all ÖBB Euro City and intercity trains and certain other types of train, ladies compartments are furnished with six seats. The train attendant pays particular attention to these areas. Also in sleeping cars of the night trains special ladies compartments are established, which can be reserved three months in advance.

Customer surveys show that customers of the ÖBB with the safety measures are important and increase the sense of security.

# UITP 2013: Alstom launches Axonis and Urbalis Fluence, two major innovative solutions



Alstom has launched at UITP (1) World Congress & Mobility and City Transport Exhibition two innovations: Axonis, a metro system and Urbalis Fluence, a signalling solution.

Axonis is a non-proprietary integrated metro system, able to carry up to 45 000 passengers per hour per direction, available in a record time and designed to run on a viaduct but also at ground level and underground.

Urbalis Fluence is the first urban signalling solution that is train centric and train-to-train communication enabling headways to be down to only one minute.

“Innovation is at the heart of our strategy. We remain focused on differentiating ourselves by state-of-art technologies and our strong expertise”, commented Henri Poupart-Lafarge, President of Alstom Transport. “With these new solutions, we will further strengthen our cooperation with cities to help them solve the challenges they are facing today: congestion, saturation, high pollution, and tight budgets”.

Alstom remains the one-stop-shop for urban mobility solutions adaptable to every city across the world.

## Axonis – a fully integrated metro solution available in a record time



Axonis is an elevated metro system able to transport from 15 to 45 000 passengers per hour per direction which run mainly on viaduct but can also run on ground level and tunnels. It is a non-proprietary system, allowing cities to increase their fleets and develop line extensions through a competitive bidding process. Axonis fits smoothly into the cityscape thanks to a narrow viaduct that follows the curves of the street (45m curve radius) allowing for greenery, shops etc. to be installed underneath.

The viaduct designed in partnership with a subsidiary of Bouygues (VSL) uses precast concrete girder boxes for technological simplicity, enabling them to be built by a large number of public works companies around the world. To limit construction nuisances, the viaduct superstructure is formed by concrete beams, cast off-site. Once the viaduct is elevated, concrete railway tracks will use Appitrack - an Alstom fast building method for trams and metro tracks that lays 150 metres of tracks per day compared with 20-50 metres when using traditional technology.

The train is Metropolis comprising two to five cars that can run at a speed of up to 80 km/hour on a gradient as high as 6%. With over 70 years of experience, Alstom sold 4,000 Metropolis in more than 40 cities across the world. For safe, easy evacuation, this metro opens up at both ends to allow passengers to walk to the next platform. Energy consumption is limited as it is equipped with steel wheels, 100% motorised bogies and Hesop, a technology that enables full reuse of the kinetic energy generated by the train in breaking phases. Hence combination of these three elements reduces the traction energy required up to 40% compared with metro trains running on rubber wheels. The metro is driverless, equipped with the latest Alstom CBTC solution, Urbalis Fluence, which ensures maximum fluidity with minimum headways.

Axonis is designed for cities with high population density not yet equipped with metro systems or seeking to extend their current networks. It is also intended for cities with underground areas that have protected status as UNESCO World Heritage Sites or are difficult to access. Lastly, it can meet the needs of cities looking for a faster metro system at lower cost.

The system will be available to market by the end of the year 2013.

## Urbalis Fluence – a breakthrough innovation through simplification



Urbalis Fluence, the new Alstom signalling solution, has been chosen by the Urban Community of Lille Metropole in France for Line 1 to be delivered in 2015.

Urbalis Fluence is the first vehicle-centric CBTC2. For the first time, most routing and interlocking functions are efficiently built into the train. This optimal architecture reduces equipment down to 20% and eliminates the need for the traditional split into separate automatic train control and interlocking sub-systems. In addition, Urbalis Fluence is innovative in its use of direct train-to-train communication. The train registers only the track resources it requires to optimise traffic fluidity and communicate with other train much more quickly, leading to headways reduced from three minutes to only one.

With intervals reduced, Urbalis Fluence increases transport capacity and decreases saturation. With more trains, crowding is less frequent; waiting periods at stations and travel time are shorter making the journey much more enjoyable for passengers. Furthermore, the new solution offers higher operation availability (24/7 operations) with extreme flexibility of train movements. Therefore in the event of incidents such as a station closure or a point failure, the solution allows the train to move back to the previous station or bypass the failed point. Passengers are no longer blocked between stations. Additionally, Urbalis optimises train operations as it enables it to plan its speed according to each situation during the day, allowing 30% energy savings. In terms of safety, the new solution meets with the highest standards of safety assurance recommended by official authorities.

The system can be installed on standard and elevated metro lines, metro-trams and automated light transit systems. Urbalis Fluence provides the performance needed for heavy ridership exceeding 1 million passengers per day as well as smaller ones of 10,000 passengers a day. It applies to manual and automatic train operations, and new and older lines alike. It takes less than 24 months to implement the system.

1 - International Association of Public Transport

2 - communication based train control

## Aeroexpress and Stadler Sign Contract for Delivery of Double-Deck Trains



Russia's Aeroexpress and the Swiss railway equipment manufacturer Stadler Rail Group have publicly signed a contract for the delivery of double-deck rolling stock in the Moscow City Administration.

The contract, worth a total of EUR 350 million, was concluded in the presence of the following: Moscow Mayor Sergey Sobyanin; Deputy Mayor of Moscow and Head of the Transport and Road Infrastructure Department, Maxim Liksutov; Minister and the Head of the External Economic and International Relations Department of the Moscow City Administration, Sergey Cheremin; OAO RZHD's Vice-president for Passenger Transportation, Mikhail Akulov; Advisor and General Counsel of the Swiss Embassy in the Russian Federation, Hansjörg Mayer; and mass media representatives. The contract was signed by Aeroexpress CEO Alexey Krivoruchko on the company's behalf, and by Peter Spuhler, president and owner of the Stadler company.

Before the signing ceremony for the contract commenced, Moscow Mayor Sergey Sobyanin noted that the trains currently serving the routes between Moscow rail terminals and its airports are of insufficient capacity, and thus, new rolling stock will be put into operation on these routes.

"Aeroexpress services, which include transporting Moscow passengers to the capital's airports, have become one of the most popular means among other public transport modes. The project has proven to be developing successfully; this year will result in 158 million passengers being carried by Aeroexpress trains," Sobyanin commented during the signing ceremony. The General Counsel of the Swiss Embassy in Moscow, H.-J. Mayer, mentioned that Stadler Bussnang AG manufactures high-technology products, which are in demand worldwide. The General Counsel also expressed hope that this contract will set an example for other Swiss companies that are about to enter the Russian market.

"Collaboration with Stadler aims to solve one of the most essential problems faced by Aeroexpress today, which is an increase in carrying capacity. Aeroexpress passenger traffic is increasing from one year to the next by almost 20%, and introducing new double-deck trains is a logical solution, allowing us to not only significantly enlarge our trains' seating capacity, but also provide our passengers with even greater comfort during their journey. The new double-deck Stadler trains, which should arrive in Russia as early as 2015, correspond to the highest international standards", commented Alexey Krivoruchko, CEO of Aeroexpress.

"The contract with Aeroexpress for the development and delivery of double-deck rolling stock has been one of the biggest contracts signed by Stadler to date in Russia. Aeroexpress' decision in favour of these high-speed trains is definitely a success for us and is unquestionable evidence of the fact that Stadler's products are in demand. Our trains have already proven themselves in many countries, such as Switzerland, Germany, Austria and Luxemburg, and we are very pleased that soon Russians will also be able to assess them at their true value," stated Peter Spuhler, President of Stadler Rail Group.

The official signing of the contract between the companies is yet another important step towards realising this project after Aeroexpress revealed the results of the tender, held in February 2012, for supplying 172 double-deck railcars. By May 2016, the victorious Stadler shall deliver 118 railcars to Russia, according to a basic contract (16 4-railcar and 9 6-railcar train sets). Later on, a total of 54 railcars will be supplied to Russia according to an option.

These forthcoming Aeroexpress trains will be developed on the basis of the already well-known Swiss KISS trains. The railcars will be produced of light aluminium, which enables lowering their weight as compared to railcars traditionally made of steel, thereby reducing operating costs. The new trains will be able to achieve a velocity of 160 km/h.



## Bombardier Locomotive Demonstrates Its Power and Completes Rail Logistics Chain



Rail technology leader Bombardier Transportation has recently proved that its TRAXX AC Last Mile locomotive is closing the logistics gap in the rail sector during a customer and press event in Velim, Czech Republic.

The Last Mile mode, a combination of diesel engine and support traction battery premiered by Bombardier, allows rail vehicles to overcome short distances without catenaries. At the test circuit in Velim, the TRAXX AC Last Mile locomotive showed that it can haul trains weighing up to 2,000 tonnes not only on electrified lines but also in Last Mile mode. The locomotive masters short distances on non-electrified lines without producing any emissions by using only its battery. This will enable rail companies to manage traffic into harbours, freight terminals and loading depots without additional trucks or shunting locomotives.

In Last Mile mode, the locomotive reaches a top speed of 40 km/h while hauling heavy trains and up to 60 km/h running alone. On electrified lines, it reaches up to 160 km/h. The transition from electric to diesel traction is performed dynamically, which means without stopping. The Last Mile function thereby enables operators to benefit from the huge environmental advantage of an electric locomotive running also on short non-electrified lines.

The TRAXX AC with Last Mile function is currently undergoing homologation. Launch customers are Railpool and Akiem. Railpool will lease three of these locomotives to the Swiss railway company, BLS Cargo.

"This new locomotive harmoniously combines economy and ecology, a big advantage for our customers in the global market," said Janis Vitins, Director Marketing and Product Planning, Locomotives, Bombardier Transportation. "Around the world, we are facing challenges to people's mobility and the environment due to urbanisation. Bombardier is at the forefront of developing precisely fitting technologies that improve total vehicle performance to move more people and regarding the TRAXX AC Last Mile especially more goods than ever before efficiently."

Locomotives are the backbone of most freight and many passenger services around the world. In Europe, TRAXX locomotives are the most widely used, with more than 1,550 of them sold in just over a decade.

## New Škoda tram designed for Hungary is in test operation in Plzen



The newest tram manufactured by Škoda Transportation has ventured out into the streets of Plzen. It is a modern, fully low-floor model 26T, which is designed for the transport company in Miskolc in north Hungary. It commenced test operation from May 15th.

“15 months after signing the contract our tram runs in test operation in the streets of the city of Plzen. We were able to develop and produce a new tram that meets all the latest standards and it was in a very short time. The first two cars will be delivered according to the contractual terms to Miskolc until February 2014, the rest from a total of 31 of these trams will follow until February 2015,” says Zdeněk Majer, Vice President of Sales at Škoda Transportation.

The contract to supply thirty one low-floor trams for nearly two billion crowns was closed in the beginning of the year 2012. It also includes an option for ten years full-service for 175 million. Škoda Transportation defeated in the tender other European manufacturers of trams, namely the Italian manufacturer AnsaldoBreda, the Spanish CAF, Romanian Astra Vagoane and Polish Solaris.

The tram for Miskolc is based on the best tried and tested design solutions. It is a two-way five part with three fix chassis, two outer of them are powered and middle one is standard. With a width of 2.65 meters it is the widest vehicle produced by Škoda Transportation. During the construction of the vehicle by manufacturer there was an emphasis on minimizing the weight, installing the energy-efficient power generators and proven components with the aim to minimize vehicle operating costs. “The tram can hold more than 300 passengers, who can enjoy the air-conditioned vehicle and a modern information system including LCD screens. Of course there is also plenty of space for prams and handicapped passengers,” says Zdeněk Majer.

In addition to the technological advantages the tram offers also an interesting modern design. “We try to accommodate to our customers. For example, the colour theme of green flowers on a white background was chosen in a poll of Miskolc people who will use the tram every day,” says Zdeněk Majer. The tram 26T respects also the latest European safety directive EN 15227, which requires no threat to passengers or driver according to given collision scenarios.

Škoda Transportation supplied electric equipment for the Budapest metro in Hungary since 2007, trolley buses to Debrecen, Szeged and Budapest and now starts trams to Miskolc. The total value of the closed contracts for this country makes CZK 3.5 billion. “Škoda Transportation trams also run in Cagliari, Italy, in Riga, Latvia or in Wrocław, Poland. There is the contract signed for 60 low-floor trams for the Turkish city of Konya this year. Currently we are preparing for a series of tenders for example in Germany, Italy, Turkey or Scandinavia,” says Zdeněk Majer.





## Locomotive 109E has received homologation according to TSI



New locomotive 109E from Czech manufacturer Škoda Transportation has obtained a certificate of conformity with the technical specifications for inter operability of the European high-speed rail system for the subsystem of rail vehicles (TSI High Speed RST). The certificate is a key document required to obtain a permit to operate in six European countries.

Locomotive 109E is the latest, three-system, high-speed machine for commercial traffic with speed up to 200 km per hour. The entire production and complete development took place in Plzeň Škoda Transportation. The advantages of locomotive are mainly its high performance, reliability, low power consumption and environmental friendliness. "Certificate TSI is a confirmation that our locomotive is one of the first machines, which fulfil latest requirements and

regulations of the European Union, particularly in terms of safety," says Josef Bernard, Chief Executive Officer of Škoda Transportation.

Certificate of TSI High Speed RST is required for type approval of locomotives for each of European states. "The locomotive has successfully completed a test access in the Czech Republic, Austria and Poland. In Germany, the Slovak Republic and Hungary are either final or the last type of tests," says Bernard. The new three-system locomotive can operate on the railway corridors of all neighbour countries of the Czech Republic and in Hungary. In these countries locomotive can smoothly pass over areas with different power systems. The machine handles with the specific conditions of track and power systems with AC voltage of 25 Hz kV/50, or 15 kV/16, 7 Hz and also possibly with a DC voltage of 3 kV.

Škoda Transportation has invested more than 38 million euros to the development of the fastest and most powerful domestic locomotive. Locomotive contains thirty kilometers of cables and it has more than ten thousand electrical

connections. During its production Škoda Transportation used the most modern materials. For example, fibre composites similar to those used in Formula 1 cars which greatly improve driving attributes.

Locomotive 109E is highly durable. This corresponds to its structure - for example in the driver cabin are deformation zones, which have task to absorb large amounts of energy in the potential collision. Driver remains undamaged and space undistorted when locomotive crash into the truck with a tank weighing around 15 tons at speed 110 km/h. Because of its resistance is also possible to fix locomotive relatively easy.

Škoda Transportation paid much attention to maximum security. New locomotives have to fulfil the most strict safety limits. This design has successfully completed tests of fire protection. The machine has fire detectors and effective fire extinguishers. The wall between the cabin and the engine room resisted fire for fifteen minutes.

## Nene Valley Railway

The Nene Valley Railway (NVR) is a preserved railway in Cambridgeshire, England, running between Peterborough Nene Valley and Yarwell Junction. The line is currently seven and a half miles in length. As well as stations at each terminus, there are currently three stops en route: Orton Mere, Ferry Meadows and Wansford. On May 18th/19th, the line's diesel gala took place with several visiting locos attending. Here HNR's Class 20 311 and 20 314 cross the river at Wansford, arriving with a service from Peterborough. [Class47](#)



Swedish SJ Class Y7 Diesel Railcar 1212 B-2 'Helgar' having one of its first runs since restoration was completed arrives into Wansford. [Brian Battersby](#)



Class 50 006 'Thunderer' having arrived at the line for the gala, was then sidelined with electrical problems. Seen in the yard at Wansford on May 18th, the loco didn't get used all weekend. [Class47](#)



Class 31 108, one of the Nene Valley's resident locos is seen shunting in the yard at Wansford on May 18th.

*Brian Battersby*



A couple of the lines steam locos are pictured at Wansford.  
LMS Fowler Class 4F 0-6-0 No. 44422 built in 1927 is seen next to  
1954 built BR Standard Class 5 4-6-0 No. 73050  
'City of Peterborough'. [Class47](#)



Visiting the Nene Valley for the diesel gala, Class 56 301 is seen crossing the River Nene at Wansford on May 18th.

*Richard Hargreaves*



BR Swindon 0-6-0 Diesel Hydraulic Locomotive Class 14 No. D9520 (carrying No. 45 from when it was in use at a steel works) is seen at Wansford with the shuttle for Yarwell. [Class47](#)



Class 56 303, 56 103 and 56 301 are seen lined up on Wansford shed, May 18th. [Andrew Wilson](#)



Still carrying its Fertis livery from when it was on hire in France, Class 56 103 is seen partnering Class 37 109 as they approach Orton Mere on May 18th. [Richard Hargreaves](#)



At the Peterborough end of the line, Railworld houses a unique collection of exhibits including an American Alco S1 switcher diesel locomotive number No. 804, seen here undergoing restoration. [Richard Hargreaves](#)





On June 21st 2004, OBB Class 1042.005-7 heads through St. Valentin with a loaded coal working, heading for Linz. [Class47](#)



SBB Re6/6 No. 11625 'Oensingen' and  
SBB Re4/4 II No. 11311 are seen heading a  
freight through Pratteln on August 21st 2008. [Brian Battersby](#)



Heavily graffitied Trenitalia Class E655.083  
is seen at Brescia on August 28th 2006.

*Brian Battersby*

