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### Wilmington Show November 17-18, 2007 by show coordinator Dan Pawling

Club participation was excellent & the module showing members had help setting up from members who were not showing modules. See the photo (left) of the set up and Saturday morning crew. We were running trains before the doors opened and working out the bugs in the track & wiring through out the morning. Thanks for your participation this really does help those that bring modules and equipment. The show was well attended as it seemed that crowd was constant throughout both days. The Fez Room seems to be a good place because we can expand the size of the layout. There seemed to be a good flow of spectators even though we were not on the main floor.

We had some new enthusiastic young folks come and run trains which helped keep the trains moving on the lay out. Good job guys and gals your help & the enthusiasm is much appreciated. There are a couple things to remember is that we need to use the sign-up sheet for running time so that every one gets a chance to run. We also have members that have rolling stock that they have invested a lot of time to get them looking great. We all need to remember to ask before you touch someone's trains.

Paul Azevedo Brought two new modules to test out and they seemed to do well. Paul plans to add mountain line (Green line) and scenery in the coming weeks. He has installed power pole connectors on his module and used the clubs power pole to Clinch Jones adapters to hook up to the rest of the layout which still has predominately Clinch Jones connectors. The adapters were originally put together to allow us to connect to modules from other clubs at the Springfield Big E show. The club owns & maintains one set of adapters at present and these should be kept available for the purpose that they were originally assembled. If you're new modules require power poles it is recommended that you put together a clearly color marked male & female set of adapters so that there is flexibility as to where your modules will be placed in the layouts in the future. If you don't have them you need to make it clear to the Coordinator that you have a module with power pole connectors. The coordinator will decide if it is possible to include your module base on what is available for equipment at the time.

The Greenberg show was a great success and I am looking forward to seeing you all in Springfield. Remember to give John Dunne a call to let him know what you are bringing to the show.

*Here is the group at the Greenberg Show on Saturday November 17. (front row l to r) Mike Walker, Bob Pawlak, Roland Kelley, John Dunne, Robert Burn & Fay Chin. (back row l to r) Mark Ferracane, Chuck Abraham, Ron Cavanaugh, Peter Wisniewski, Rand Hoven, Dan Pawling, Paul Azevedo Frank Dignan & Garry Keil. Picture by Mark Ferracane.*



### President's Message

Here it comes!! Winterfest is here. Buy the time you read this you should have made your reservations at the hotel and sent in your registration. Sorry about getting the registration page on the site late. We had problems with the website. Also, you should have your contest entries ready. I hope that we have lots of entries for the contests. The website will have contest entry forms to be filled out BEFORE you submit the entry. There will also be new things added to Winterfest this year. And for those people who have not heard, the show will be four buildings big this year. The new building is the Mallory Complex, the building is to the left of the Young Building. Hope to see you there!

Til next month  
Mark

**BIG SKY: FOURTH DAY (con't)*****Photos, story by Pawling's Jr. & Sr.***

We left LaCrosse, WI, before noon on July 23rd on I-90. Within minutes we were across the Mississippi River into La Crescent, MN. The CP/UP/AMTK/DME (x-MILW) crosses the river south of the I-90 Bridge into a "Y" within a "Y" to join the Iowa Chicago and Eastern RR (ICE) (also x-MILW). Driving north on the left we saw a long siding holding covered hoppers. On the right was the Corps of Engineers Lock and Dam #7 on the river. We stopped at the nearby Minnesota Visitor Center which has a river overlook and free State of Minnesota Transportation maps. This map shows and names railroad lines, as do the official transportation maps of several other states. We saw very little of the rail lines the map showed as being close to I-90 and did not look for them, choosing to boost our daily mileage instead. In South Dakota, the Dakota Southern (DSR) and later the Southern Dakota (SD) rails were in view from time to time, but we saw no traffic. We found out later the line has been out of service for seven years due to "unfavorable rates" imposed by BNSF, the only interchange line. In South Dakota we began to see forever, and then some. Flatter land, less trees, "farm" acreage was greater and associated structures farther apart. We saw a few wind farms, both operating and under construction, and power line pylons of similar height. We also saw the outside temperature rise into the mid and high 90's. At 150 miles west of the MN border we came to the Missouri River at Chamberlain, SD, about 6:30 PM Central Time. Right off I-90 is a rest stop and overlook on the bluff above the river. A plaque told the story of the railroad bridge we saw below. I thought it credited the CBQ; my atlas map says MILW. I don't have a photo of the text so I will go with MILW (now DSR) until I learn otherwise. Photo below shows the full length of the bridge and the top of next column shows a closer view of the truss spans. (Back home, I printed a Google air photo and was able to calculate horizontal distances; 0.9 miles to the near (east) shore of the river and another 0.9 miles to the far side). The bluff has been severely eroded from the edge of the bluff to the

**Show Schedule for 2007 – 2008****Jan 25 to 27, 2008, WINTERFEST 2008, West Springfield, MA**

Big "E" Exposition Center, West Springfield, MA

Set-up Fri noon to 5pm and Sat 7am \* Show Sat 9am to 5pm - Sun 10am to 5pm

**Coordinator: John Dunne - 508-697-7635****Winterfest Coordinator: Bob Pawlak - 781-862-2485****Feb 16 & 17, 2008 Museum of Our National Heritage, Lexington, MA**

Set-up Sat 7:30am Show Sat 10am to 5pm - Sun noon to 5pm

**Coordinator: Bob Pawlak - 781-862-2485****Mar 24-25, 2008 Great Train Expo, Wilmington, MA**

Shriners Auditorium, Wilmington, MA

Set up Sat 7:30AM Show Sat 10AM to 4PM - Sun 10PM to 4PM

**Coordinator: Fay Chin - 978-657-7913****Apr 22, 2008, Hooksett Lyons Club, Hooksett, NH**

Cawley Middle School, Hooksett, NH

Set-up 8am Show 10am to 4pm

**Coordinator: Mike Walker - 603-426-8620**

river. We did not stay here long; there was a stiff wind, the air was dry and dusty and the temperature was now 110 F. Looking south while crossing the river (photo) are the truss and some deck spans of the DME bridge beyond Dan Jr's profile. We arrived in Wall, SD for a supper of sorts, and a tour of the world famous Wall Drug Store operation. The Dakota Minnesota and Eastern RR (DME) serves Wall and may be the starting point of a long planned extension into the Powder River Coal Basin in Wyoming. There was no room in the inns here so we drove on to Sturgis, SD and found a place even though there was an international motorcycle convention was going on. We ended the Fourth Day with 655 more miles completed. Tomorrow: into Wyoming and Montana and the family's camp. End of Fourth Day





**EuroStar From London to Paris**  
**by Roland Kelley**



***This is a picture of Waterloo Station in London. The start of my trip. The Shed in the foreground is where the EuroStar is parked. It is the international section of the station. This picture was taken from the London Eye.***



***Above is Ashford International Station in England. This station is in England just before you enter the tunnel for France.***

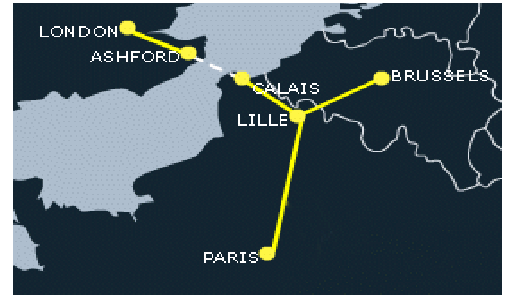
This train was not only fast but the ride was so smooth. There was no side to side motion just a great smooth ride. There are no grade crossing to worry about. Not like the Acela Express that not only has grade crossing to handle but sharp curves which on the EuroStar are not an issue. You ride this train and wonder why the United States has let its passenger trains go. Just look at the latest news about the on time status of the Boston "T"? One thing in Europe is that passenger trains have the priority, maybe we should think of putting passenger trains back as a priority here again, before passenger service was given to Amtrak.



***Here is my train on the left before we left Waterloo Station in London.***

My trip started at Waterloo Station in London. The lines to check in for the train are just as bad as rush hour at Logan Airport. First you wait in line to have your ticket checked. Then on for the security check, the same as for the airplane. Guess this is so because of the tunnel. Once you have gone through the security check you are on your way to board the train.

The train was sold out, but the seats are pre-assigned. We were in car 1 of 18 in the train set. The train we took only made one stop and that was at Ashford International Station in England just before we entered the tunnel. (see picture top of next column) Once leaving the station it was not long before we entered the tunnel for France.



***To the right is a map showing the route of the tunnel.***



***The inside of Gare du Nord station in Paris (above). (Below is the outside of the Gare du Nord station.***



Two hours and 15 minutes after leaving London we arrived at the station in Paris on time. On the way we passed four passenger trains northbound to London and did pass one auto rack train northbound. If you ever have a chance take a ride.

## **Background Information on the EuroStar**



Eurostar's main rolling stock is made up of a total of 28 electric multiple unit sets, named as Class 373 in the United Kingdom and TGV373000 in France. The Three Capitals trains are 400 metres long, weigh 800 tonnes and carry 750 passengers in 18 carriages. In case of an incident in the Channel Tunnel, the trains can be divided in two in order to evacuate the passengers in the unaffected carriages.

The trains were constructed by GEC-Alstom (now Alstom) at its La Rochelle, France, Belfort, France and Washwood Heath, England. They can run on third rail and various catenary voltages, drawing up to 12 MW of power and achieving a maximum in-service speed of 300 km/h (186 mph) when collecting current from 25 kV overhead catenary. They are essentially modified TGV sets, and some Eurostar trains not needed for cross-Channel runs are used in domestic TGV service by SNCF.

In July 2003 a Eurostar train set hit a new UK rail speed record of 334.7 km/h (208.0 mph) during safety testing on the first section of the CTRL. This section opened for commercial services in September 2003 and has shortened journey times by 20 minutes, helping increase passenger numbers by as much as 20%. Because of the different power systems in the UK and Mainland Europe, with the existing lines in the south of England using a third-rail (at 750 volts DC) for powering their trains, and mainland Europe and elsewhere in the UK using overhead wires, the Eurostar trains have both pantographs for mainland Europe and third-rail contact shoes for use in the UK. All the Eurostars are tri-voltage (750 V DC, 25 kV 50 Hz, 3 kV DC), with five sets having quad-voltage (1500V DC) circuitry for working in the south of France.

While operating on the pantograph power collection, the Eurostar has to be able to cope with three different standards of overhead catenary: regular-height catenary

on the Belgian and French domestic railways and through Lille and Ashford; lower-height catenary as found on the LGV lines; and the higher catenary through the Channel Tunnel. The tunnel catenary is much higher as the tunnel carries double-deck auto racks and piggy-backs. The driver of the train is required to lower the pantographs as he exits one system and raise them again when he enters the new system.

Whenever the driver lowers the pantograph and deploys the 750 volt DC shoe gear to run on the UK South Eastern regional domestic lines, the speedometer scale automatically changes from kilometres per hour to miles per hour. The short section of track into and out of Ashford International has dual 750 volt DC and 25 kV AC power systems with the line side speed limit signs in both imperial and metric, so that no change in the speedometer is required. Eurostar can operate at up to 300 km/h (186 mph) on high-speed lines, 160 km/h (100 mph) in the Channel Tunnel. Since there is an automatic application of the brakes if the speed exceeds 300 km/h, 160 km/h when the pantograph is in the tunnel setting, the target speed is in fact 297 and 157 km/h respectively. Speed limits in the Channel Tunnel are dictated by air-resistance, energy (heat) dissipation and the need to fit in with other trains operating at slower speeds.

The Eurostar trains and their drivers have to be able run under four different signalling systems: the UK domestic system between Waterloo and CTRL1 near Swanley in Kent, around Ashford International Station, and at St Pancras International; the French domestic system between Paris Gare du Nord and the LGV; the Belgian domestic system between Brussels-South and the TGV line; and the TVM signalling on the LGV.

Due to the high speed of travel, the driver is considered to be unable to see line side signals and to be able to respond accordingly. With the TVM signalling used on the high-speed lines, the target speed for the end of the current block is displayed, along with a flashing indication for the next block if it is a different speed. Also, auxiliary signalling such as the location of neutral sections in the overhead supply and pantograph adjustment zones are displayed in cab as well as by the line side. The operation of the locomotives' circuit breakers over the neutral sections is handled automatically on the TGV lines only, but the pantograph adjustments must be performed by the driver.

The Eurostar trains have three braking systems. The motors can operate in a regenerative mode providing dynamic braking. Each axle has four disk brakes on it. Both power cars have wheel brakes operating directly on the wheels. The combined effect of the three braking systems can bring a train travelling at 300 km/h to a complete standstill in 65 seconds. The train covers about 3.5 km during this time.