



## Thameslink new Class 700 trains

Your questions answered		
1.	When will the new trains enter service?	<p>The first trains are expected to enter passenger service in spring 2016 on the existing Bedford to Brighton, Wimbledon and Sutton Thameslink routes.</p> <p>The trains will be introduced on the East Coast Mainline (Great Northern route) in 2017. The full fleet of new trains is planned to be in service in time to enable the full 24 trains per hour peak timetable across central London towards the end of 2018.</p> <p>Initially new 12-carriage trains will replace the busiest 8-carriage trains on the Bedford to Brighton Thameslink route in spring 2016 providing an immediate boost to capacity. The 4-carriage units released by splitting the replaced 8-carriage trains will then be available for use in lengthening the 12 remaining 4-carriage peak hour services to 8-carriages, helping to address overcrowding.</p>
2.	What will happen to the existing trains?	<p>Ultimately it will be for train operators and the owners of the current trains to decide their future, but should the industry deem it appropriate, there would be the opportunity to cascade some units onto other areas of the network,</p>



		<p>particularly to support newly electrified routes.</p> <p>Should the train operators and owners decide to relocate the existing trains they will need to be refurbished and upgraded by 2020 in order to meet the latest access requirements for wheelchair users and other people with reduced mobility, unless they already meet those standards.</p>
3.	How many new trains are there?	<p>The Department for Transport specified that the manufacturer and maintainer (Siemens) provide a fleet of sufficient size to be able to operate a reliable and robust 24 trains per hour peak period service.</p> <p>Siemens has committed to meet these requirements with a total fleet size of 115 new trains: 55 trains in a 12-carriage formation and 60 with 8-carriages.</p>
4.	Who led the design of the trains?	<p>The trains are designed by Siemens to meet a specification developed by the Department for Transport in consultation with train operators and other stakeholders.</p> <p>They incorporate the feedback of existing UK train crews, operators, cleaning and maintenance staff, as well as Siemens' own extensive experience as one of the world's leading train manufacturers.</p> <p>A survey prepared for Passenger Focus in a joint project with the Department for Transport and London TravelWatch was also used to influence the design.</p>

		<p>The trains will be the first significant national rail fleet in the UK to be developed with automatic train operation integral to the design.</p> <p>The result is an evolutionary and revolutionary industry-leading train designed to meet challenging environmental, reliability and capacity targets, which will transform the experience of passengers travelling on Thameslink routes.</p>
5.	Why are they different from existing UK trains? What benefits do they offer?	<p>The new trains will offer a step change in passenger experience, with greater passenger carrying capacity, improved passenger information systems, climate control and easy access for passengers with specific mobility needs.</p> <p>The trains will be more energy efficient and therefore be better for the environment. They will be lighter, which means less wear and tear on the tracks and will subsequently lead to less disruption caused by maintenance.</p> <p>They have also been designed to be significantly more reliable than the existing trains on this route.</p>
6.	What factors contributed to the configuration of the seats?	<p>A passenger survey prepared for Passenger Focus in a joint project with the Department for Transport and London TravelWatch highlighted that “The majority of passengers in the sample recognise the underlying design objective to increase capacity during peak times especially by increasing the ratio of standing spaces to seats.”</p>

		<p>The full research findings are available on the Passenger Focus website in a document titled 'Thameslink Rolling Stock Qualitative Research'. Other points included:</p> <ul style="list-style-type: none"> <li>• Safe and comfortable standing was their number one priority</li> <li>• Wanted more personal space</li> <li>• 'Three plus two' seating was disliked</li> <li>• 'Two plus two', perch and tip-up seating was welcomed – also on outer routes</li> <li>• Wider stand-backs around doors welcomed.</li> </ul>
7.	Why don't the trains have intermediate cabs?	<p>As the trains are fixed length (i.e. they cannot be split and joined) they will only need driver cabs at the ends of the trains (i.e. not intermediate cabs). This means more space for passengers.</p> <p>The trains also have interconnected gangways creating a wide open passage along the entire length of the train. This will help with passenger circulation on the train, so passengers will be able to easily move to parts of the train where there may be more space.</p>
8.	Are there specific accessibility / disability features?	<p>The trains provide excellent accessibility features that are fully compliant with the latest disability legislation, including accessible toilets central to the train and plenty of space for wheelchairs / buggies etc. Platform humps at central London stations will provide level access for swift boarding by wheelchairs and people with</p>



		<p>buggies or heavy luggage – meaning no more ramps at the busiest central London stations.</p>
9.	What about the seats?	<p>The seats offer a good level of comfort and have been carefully selected for the capacity requirements. Modern seats such as those in Class 377 and 700 trains tend to have a firmer feel due to improvements in fire regulations.</p>
10.	It seems as though the new trains will have fewer seats than the existing stock. How does this improve the journey for passengers?	<p>There are fewer seats in each carriage to provide passengers the 2-plus-2 seating which research showed customers prefer instead of the more cramped 2-plus-3 layout. 2-plus-2 seating also enables the gangways to be wider, facilitating the quick boarding and alighting needed to maintain 24 trains per hour in the busy central area.</p> <p>However, on many routes passengers will have longer or more frequent trains (or both) so there will be more seats across the full 3-hour peak periods and capacity to carry more people. For example at London Bridge there will be 60% more carriages in the morning peak and from St Albans we'll have 30% more seats at that busy time of the day</p> <p>The trains also need to meet the latest legislation for people with reduced mobility, creating space for accessible toilets, spaces for wheelchairs / buggies and space for wheelchair users to be able to manoeuvre.</p> <p>On top of these areas there are wider doors, large vestibules and wider aisles to</p>

		help passengers board and alight in just 30 seconds in central London which allows the train to run at high frequencies on this part of the network.
11.	Is this additional capacity really needed?	Yes! Many routes on the existing Thameslink network are already heavily crowded and significant growth is expected over the next 30 years, including at off peak times. The new trains have been designed to address the current and future demands.
12.	Why do you have first class?	<p>First class seating will always be provided where it is required. However, where it is not needed, first class areas can be declassified.</p> <p>The new trains also have the very latest passenger information systems which will automatically declassify some or all of the first class area according to the route. For example, around the Wimbledon and Sutton loop we don't foresee the need for any first class at all.</p>
13.	Why isn't there a separate fleet for the metro-style services that doesn't feature first class?	One of the key benefits of the Thameslink Programme for passengers is that routes that formerly terminated in London, can now go across the capital enabling many passengers to avoid the need for additional onward journeys via the tube. This means that most routes will have an element of metro area working whilst also needing to cater for commuter journeys and provide links to key airports like Gatwick and Luton, and via Crossrail at Farringdon, to Heathrow. It would not be possible to have specific sub-fleets to cater for these different journey types.



		<p>Having just one type of train means they can be used on any one of the many different routes of the new, bigger Thameslink network, giving us many more trains at our disposal so we can provide passengers with the best and most resilient overall service possible.</p>
14.	<p>How do you know they will be more reliable than the existing Thameslink trains as this is a new design?</p>	<p>Siemens' trains are widely known to lead the way in reliability. Statistics show that their current UK trains – which travel over 50 million miles a year in the UK – are twice as reliable as the existing Thameslink Class 319 trains.</p> <p>The Class 700 train has taken all the best features and proven technology from class-leading units and combined it with feedback from UK train operators, train crew, cleaners and maintenance staff to create a truly evolutionary train.</p> <p>Additionally the trains will be maintained at state-of-the-art train maintenance depots that will feature the latest technology and be staffed by highly trained people who use their skills and a high performance 'pit stop' approach to make sure the trains are maintained to the best standards.</p> <p>A contractual element of the order included the train maintainer Siemens ensuring that fully operational fault-free trains are available to the operator every day.</p>
15.	<p>How environmentally friendly are they?</p>	<p>Electric trains are already one of the most environmentally friendly forms of</p>



		<p>powered transport and the Class 700 is up to 50% more energy efficient than its predecessors – saving enough energy to boil 3,000 kettles per day per 12 carriage train.</p> <p>They are also better for the tracks because they will be lighter. This means less wear and tear and disruption caused by maintenance on the network. Additionally, the trains are 95% recyclable.</p>
16.	Will they feature automatic train operation?	<p>The Class 700s will have a feature that will automatically drive the trains between stations through the central London section. The driver will remain in control, checking and closing the doors and starting the train from each station but the automatic train operation will control the speed for energy efficiency and accurate arrival times at the next station – essential to maintain the high frequency service through central London.</p>
17.	Will there be tables in standard class?	<p>It has been decided not to have tables in standard class. Passenger research for the rail watchdog, Passenger Focus and London TravelWatch showed that people recognised the main priority was to maximise capacity. Seat tables are a nice to have but they also slow people down getting on and off trains – and we'll have just 30 seconds to get people on and off these new trains in central London.</p> <p>Our priority is to get more people from A to B as quickly and as reliably as possible. These new trains will give us more carriages and more capacity and much better reliability than existing trains, which is what people want.</p>



18.	Will Wi-Fi be fitted?	Wi-Fi was not included in the original specification laid out in 2008. However, the trains have been designed to make it as easy as possible for Wi-Fi (or an alternative next generation technology) to be fitted.
19.	Will people feel secure in the new trains?	There is excellent visibility up and down the train thanks to the wide interconnecting gangways between the carriages increasing people's sense of security. Passengers are also able to move along the full length of the train, away from anyone they may be concerned about. The new trains are fitted with prominent CCTV cameras which should act as a deterrent and the driver can view these images in his cab. Each carriage has emergency alarms that also allow passengers to speak with the driver.