OFFICE *of the*
RAIL REGULATOR

Proceedings of Train Operator Seminar into Incentive Framework for Track Access Charges

held at
The Law Society, London WC2
on
Monday, 28 February 2000

(Transcribed from the stenographic/shorthand notes
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THE REGULATOR: Good morning, ladies and gentlemen and welcome to the ORR's second home. (**Fire evacuation details**) We are making a transcript of today's proceedings in the normal way. That gives us an opportunity to record permanently your opinions on these matters and we very much hope that you will fully participate in today's proceedings. We will check the transcript when it is made available to us and we will place it on the ORR website and in the ORR library.

Today is all about the periodic review of Railtrack's Access charges. It is about the incentive framework and I am going to say a few words by way of introduction. Parties to Track Access contracts and most notably Railtrack itself, have criticised the existing incentives framework. We have been considering the matter of incentives very carefully as part of the periodic review of access charges and we consulted the industry, the railway institutions and the wider world on these issues in October, 1999 and in our October, 1999 document we set out the objectives for reform in the incentive framework.

The responses that we got were generally supportive of these objectives and we at the ORR also recognise the wider objectives of the government and of funders to increase the use of the railway network by passengers and by freight. We recognise the need for the incentive framework to be compatible with these objectives.

Railtrack needs to become more proactive in promoting the use and development of the railway and it needs to become more focussed on the customer and the funder and their needs. We believe that this can best be achieved by effective, incentive-based regulation. That means using the carrots far more than the sticks, moving away from the perception - because it was never a reality - of an enforcement-based regime. That is not to say that we will give up the opportunities to use enforecement in appropriate cases, but we very much want that to be a second option, not a first option.

We would like to get the incentives right. We would like to do that in circumstances in which we set out in advance, and in relation to the penalties we say so in advance and we will specify these things so that people know where they stand when they embark on a particular course of conduct or particular enterprise or, indeed, if they decide to refrain from any conduct. As I said previously, we do intend to use the carrot as well as the stick. After all, we want to create the right framework for the railways industry as a whole to invest in and promote the development of the UK railway network.

In relation to the timetable for the periodic review, we will publish the provisional conclusions on the incentive framework, including the topics of today's discussions, and that will be produced in Spring 2000. Final conclusions on the periodic review as a whole will follow this summer. There will then follow a period in which the periodic review has to be implemented and that means putting it into operation with the individual access agreements that Railtrack has with its customers. The broad legal process for this was set out in an annex to our periodic review document published in October 1999. It is quite a complex process and we need to allow time for those procedures to work.

In conclusion, I should also say that these procedures may be influenced by, but we do not yet know, the decisions which the Government will take in relation to the Transport Bill and the passage of that

legislation when it comes through Parliament and when it comes into effect. I have said publicly on several occasions that I support Railtrack having a right of appeal to the Competition Commission on the merits of the conclusions on the periodic review so as to bring Railtrack into line with other network infrastructure operators who are facing price reviews by independent regulators. I believe it is only fair for Railtrack to have that right like any other, and I have publicly supported that and I hope the department will accept that case and the necessary provisions put forward in the Transport Bill as it goes through Parliament.

That is all I am going to say by way of introduction and I am going to hand you over to Paul Plummer who is the Chief Economist at the Office of the Rail Regulator.

MR PLUMMER: Thank you. I will just say a few words by way of introduction and then we will go into the main sessions this morning. The incentive framework, as you know, consists of a package of complimentary elements which will be designed to achieve the objectives which Tom has described. These include the conventional cost-incentives linked to RPI-X. They also include incentives relating to performance in its widest sense, rather than the narrow sense we tend to think of performance in the railway industry. We also have a key element in the framework which is about promoting and facilitating investment in the network through a framework for enhancement expenditure. There are important issues about promoting and ensuring that Railtrack maintains the long-term health of the network.

The focus of today's discussion though, is primarily on the structure of charges which has an important implication for all of these areas. This includes the variable charge elements of the current charging structure as well as the fixed charges. There are a number of sessions today which deal with all of these. There will be presentations from Railtrack, from Booz-Allen & Hamilton, our consultants and from ourselves, and the purpose of today really is for us to set out to you the key decisions that we have to take on the incentive framework in the next few months, particularly leading up to provisional conclusions in the Spring.

But, primarily, we want to hear views from the floor in each of the sessions and the specific issues will contain a discussion where we hope to hear your views and we would hope to take account of all these views in the provisional conclusions later in the Spring. The remainder of the morning then, I will hand over in a minute to Richard Middleton who will talk about Railtrack's view of the incentive framework as a whole. Then we will talk about usage charges and the capacity reservation fee, break for lunch and continue after lunch.

In the discussions, can I just ask you to state clearly your name and organisation so that that can be recorded by the stenographers for the transcript. I will just hand over now to Richard to talk about his views of the framework.

MR MIDDLETON: Good morning, ladies and gentlemen. I cannot tell you how delighted I am as an engineer, to be speaking in such an august location, at the Law Society! We regard the incentive framework as probably the single-most important aspect of the charges review, largely because the management of the railways and the delivery of a better railway is best left to those that work within

the business rather than those who sit on the sidelines and referee. That is about alternative ways in which the railways might be regulated. You can either have intrusive micro-management or, if you get the financial incentives right, you get a light touch and a light direction.

We firmly believe that incentives will work. Incentives will change behaviour, thus enabling us to deliver efficient use of the existing network and to deliver growth of the network. It is also the opportunity to correct flaws in the existing regime and I will say a bit more about that in a minute. Railtrack has been working over the last year with the ORR in a joint research programme to try to develop proposals that you can hear more about during the course of the next 20-25 minutes.

So, what are the problems with the existing regime? It was designed for a different sort of railway. When we were going through the costing of Railtrack back in 1993-94 and setting up the privatised railway that we now all work in or work with, we were talking about a railway which was not growing. Most of the regulatory rules and, in the wider sense, the OPRAF rules were about trying to prevent the railway from contracting. We had minimum service levels to be preserved and Railtrack had a very high fixed charge as against a variable charge, to enable it to concentrate on maintaining the existing assets and with little incentive to provide for growth.

Since then, of course, we have seen dynamic growth across the whole of the railway industry, driven by a number of factors and I will not rehearse those today, they are all well known to you. But, that means that the current basis for charging is not aligning incentives across the industry, so that all of the parties involved are working in the same direction. Variable charges are currently below marginal costs. There is a different basis for charging for initial and additional access rights and any changes to the access rights have to be negotiated separately and certainly the train operators think that Railtrack's calculation of charges is less than clear.

It is also apparent that Railtrack has little financial incentive to deliver the commercial objectives of operators and perhaps even more importantly, to deliver the social and environmental benefits that other funders can gain from the railway network. A good example of that would be if you have a station adjacent to a major shopping centre, which is well served by road and with vast car parks. If you can improve access to the shopping centre by a subway under the tracks, who actually gets the benefit from that investment? Actually we all do. If we can encourage people to make better use of the railway, that would allow our over-congested road system to be relieved of some of the strain. How those investments are to be funded is clearly a key challenge for this regulatory regime.

So, what are the opportunities to change? Well, we do see a clear benefit in for having Railtrack's incentives aligned with those of customers and funders. We do need variable charges that reflect the actual marginal costs of running increased traffic and, importantly, we do see that where possible we should replace negotiation with a tariff-based approach and there are two ways that can be done.

One is the capacity reservation fee where train operators can reserve capacity ahead of using it. The other one - and I know this is probably one of the most contentious proposals - is the volume incentive where Railtrack can be incentivised by the delivery of higher growth in volume across the rail network. Not all train operators like this proposal, but train operators are incentivised to grow their revenue

through the fare box to get more people travelling by trains and I find it a complete paradox that train operators do not think Railtrack should have the same incentive to participate in growth of the network, to get more people and more freight travelling by rail and to be rewarded for doing so.

If we can get that right, we can remove and reduce the need for regulatory intervention because all of the parties to the Track Access Agreement will be working in the same direction, making better use of the existing network.

So, we welcome the opportunity to contribute to the development of new incentive regimes. We are ready to help take these proposals forward. We welcome the opportunity to participate today in the consultation exercise and we do think it is extremely important to sort out these incentives within this periodic review. We should not wait for refranchising or an interim review to get this very important element of the charging structures right.

I would now like to hand over to Stephen Gibson from Railtrack's Economics Department who will take you through an illustration of the effect of the changes to charges.

MR GIBSON: Thank you, Richard. I would now like to provide an illustration of the effects of the proposed changes to the structure of charges. However, first of all, I would like to give you a more detailed overview of the proposals, but I will deal with that in more detail in the following sessions.

Currently, charges have a cliff edge. There is a very different way in which charges for the initial set of rights are dealt with compared with charges for additional rights. So, currently, for the initial rights, there is a very high fixed charge element and a very low marginal rate which simply reflects usage and EC4T charges. Beyond that, there are criteria for charging for additional rights which add to the usage and EC4T charges, case by case modelling of the congestion costs of those rights - that is the cost reflective element of those charges and then the negotiation of the share of benefit between the cost floor and the value that has been created by the rights. That gives a different answer in each case, dependent on the outcome of the negotiations.

Our proposals are for a consistent set of charges, independent of what sort of rights the train would run under. So, we would have the same marginal charges, whether they are in the initial set of rights or in the additional rights. Because the charges are currently negotiated, you cannot say absolutely whether the new price would be much greater than or less than the current price, although because we have this sort of break in the charges currently, it would mean that TOCs should see additional variability in their over all charges.

However, most of that would be within that passenger service requirements so would not necessarily change behaviour that much. To illustrate the effect of the proposals, what we have done is develop a detailed model which shows how the charges for services and for funders would change the results of our assumptions. We based it on the December provisional conclusions with no incremental output statements and no additional renewal spend and based on the 1999 NMS outputs, 2.65% growth in passenger miles.

Based on current traffic patterns with variable charges calculated from bottom-up, based on information from the passenger billing system and the unit rates that we are proposing, we have illustrated the volume incentive based on an approximate equivalent to the amount of revenue we currently receive from negotiation of additional rights, although obviously the particular level of volume incentive that is chosen is a policy question and we based the allocation of the fixed charge on a pilot study we did on the Midland Zone last year.

The focus today is not about the fixed charge. However, it is important to understand briefly how that impacts on the charges we are going to show. The fixed charges are the residual revenue requirement given when you take Railtrack's total revenue and subtract from it the single till revenue, that is, stations, depots, property income, and expected variable income from franchise revenue. That gives you a total revenue requirement for fixed charges.

What we do is take Railtrack's costs on the left side of the slide. We allocate them to residuals, take off the variable charge that is appropriate to the level of disaggregration, and that gives residual costs at a national level which we then allocate by one of a number of metrics: train or vehicle miles to give the fixed track access charge by TOC and funder.

To give an overview of what that leads to in terms of the changes to the variability of rights. Currently we are all familiar with the 91%:9% ratio. What we must not forget is the charges at the margin: the 91:9 proportion is on average and charges at the margin are very different from that. We have a break-down of the charges for additional rights that have been purchased since the additional Schedule 5 rights and it shows quite a different set of proportions. There is a range between different TOCs. Some don't pay any EC4T as they do not run any electric trains. That gives a different proportion of fixed charge of around 70% compared with just over 90% with a range of charges for the other elements, down to 30% for Gatwick Express because they run services over a shared network which is a very highly congested network and, therefore, the proportion of the fixed charge element would be relatively low.

This shows the breakdown of the charges by sector. It shows you that particularly for InterCity and London South East TOCs, they would be facing quite a large increase in their variable element in their charges. However, the reasons for that are quite different. For InterCity TOCs, the high volume incentive reflects the commercial value of the rights whereas for London and South East TOCs, the high congestion around London would push up the reservation fee which would lead to a higher level of variability and a reduction in the fixed charge - and for all train operators we would see a higher level of usage charges reflecting the higher usage costs which we will talk about in the next session.

It is also possible to break down the proposed charges by funders, and this shows how it would change compared with existing charges. Obviously, the overall reduction would depend on the Regulator's final conclusions in July. The allocation of the fixed charge, as I said before, is based on the Midland Zone's pilot study and we see that the increase in the West Midlands reflects the additional renewals required for the West Coast upgrade whereas the sharp fall in Manchester and Merseyside reflects assumptions over allocation of First North Western traffic to funder, the comparison between what we have now and what was assumed when the 1994-95 charges were set.

The key to the incentive proposals however, is about charges for additional rights. Here we see two examples of comparisons between current and proposed charges for morning peak services compared with off peak services for Southend to Liverpool Street and Norwich to Liverpool Street. We see here again usage charges are rising to reflect the usage costs but also peak usage and EC4T peak charges being higher than off peak, reflecting the large consists in the Southend to Liverpool Street example. You see the capacity reservation fee and the congestion charges reflecting the high peak congestion into Liverpool Street.

Similarly, the example for Birmingham Snow Hill to Marylebone and Clacton to Liverpool Street. These compare charges for rights which have no flex (hard wired rights) compared with rights which have plus or minus 10 minutes flex. These reflect the lower costs Railtrack would face and therefore the lower charges we would charge for reflecting the amount of flex in the access rights.

Interestingly, on the Snow Hill example, you see that the proposed volume incentive would be significantly smaller than the negotiated share of benefits on the Snow Hill to Marylebone service or similar services.

Just to give you an overview, this demonstrates how the unit charges would vary at a lower level of detail. This demonstrates how the unit charges would vary across the route reflecting the changes in congestion of the network from Sheffield to St. Pancras, on the Midland Main Line service.

So, in summary, the proposals would generally increase the variable proportion of charges and reduce the fixed proportion. However, individual charges for additional rights or service groups could move in either direction. In some cases the negotiated share of benefit will be greater than the proposed volume incentive. In order to neutralise individual TOCs from the effect of these changes, it will require quite detailed modelling to understand those effects. Thank you.

MR PLUMMER: There is clearly a lot of information to take in there and further work will be required when the key policy questions have been decided. Clearly, also, a lot of the issues can be discussed later on under the main headings identified in the agenda, but I think now, would people like to ask questions at a higher level based on what you have heard from Richard Middleton and Stephen Gibson just now? As I said earlier, please state your name and organisation.

MR M. SCHABAS, GB RAILWAYS: One issue which does not seem to be mentioned and does not seem to be on the agenda, is what this will do to the cost of capital to Railtrack and to the train operators. There seems to be a transfer of risk and reward upside and downside from train operators to Railtrack. It is going, presumably, to increase the cost of capital works by Railtrack and reduce the exposure and commercial independence of train operators?

MR PLUMMER: We will certainly be considering whether there are any implications for Railtrack's cost of capital as part of the review and will set the cost accordingly.

MR R. GOUNDRY, FREIGHTLINER: How does the proposal, particularly the last one from Mr. Gibson, read across to freight, if at all?

MR PLUMMER: Strictly, freight is outside the periodic review as you know, but a lot of the issues are very, very common and, hence, freight operators have been showing very, very considerable interest in the review, so I think there is a great deal of read across, particularly in relation to the usage charge element.

MR W. SYKES, ENGLISH WELSH & SCOTTISH RAILWAY: Our interest and concern is in the talk about the charging for capacity and the large element that is going to come in on that. We are very interested how that will be calculated, not just for the passenger companies but we would be very, very concerned if any of those capacity booking fees or other charges for capacity were to be applied to the freight sector. I hope someone from Railtrack will be able to address that later on in the day.

LORD BERKELEY: RAIL FREIGHT GROUP: One incentive that has not been mentioned so far is an incentive to keep the railways open for trains. When I read Modern Railways last month and found that the section between Stockport and Manchester Piccadilly was going to be closed for 38 days for re-signalling on the whole West Coast Mainline, I wondered what the trains are going to run on? Surely Railtrack should have an incentive not to close the tracks more than they need for possessions and come up with new proposals, new methods of working which will keep the line open. That is what the freight customers actually want.

MR MIDDLETON: Tony, you are absolutely right, we do need to come up with better ways of utilisation of possession time and we are seeing, West Coast main line in conjunction with ourselves has bought a piece of high output kit and there is a separate exercise being undertaken now considered by the ORR, looking at improving possession management in terms of utilisation of down time on the network and also the arrangements we currently have for starting up and closing down possessions. UK passenger tracks lag far behind others in the world. 30-40% of our time is ineffective due to the way we have to comply with the old existing standards on the network. We do not want to compromise safety when we look at changing that regime but if other European networks can do it, then that system can be applied here.

MR M. BESWICK: It is not covered by today's agenda, but we are looking at the statements in Schedules 4 and 8 of the passenger track access agreements and they will go over to the freight access agreements as well. I think Schedule 4 is very much designed to incentivise Railtrack to make best use of the network, including the amount of downtime and we want to make sure it is used effectively in that context.

MR A. McTAVISH, ATOC: One of the key things we need to do in looking at this is to think about the franchise agreement that is being prepared at the moment. One of the things in that is that train operators are having less and less discretion. Certainly the fares, as we all know, are pretty well all fixed, and fall in the agreements that are being put together is being fixed more and more. It is not just the PSR, but also the number of miles. Therefore, we need to bring together what is happening on the franchise side to see how incentives will work in practice, given what is going on on the other side. I think before the day is out, we should make sure we see that linkage forged very clearly. Thank you.

MR PLUMMER: I am sure that is right. I think it should come out in the individual sections. One more question on the general points?

MR T CRABTREE, WALES & WEST: Relating to the volume incentive which I understand is intended to incentivise Railtrack to enhance the network, of course, we want the network enhancing both to enable more trains to run and also to enable the effects of previous congestion on operators who have not expanded to be alleviated. Having enhanced the railway, you do not expect to touch it again for another 30 years. How will the volume incentive by the operators using it over the next 30 years, reflect the investment that was needed at the beginning? There is a time disparity of about 10-15 years, in my reckoning.

MR PLUMMER: I think that is a fair point. Volume inventive means different things to different people and I think is quite a complicated matter as to what it is designed to incentivise, if it were to be introduced, but I think it is best if we defer that until the discussion of volume incentive itself. We move on then to the first main session on usage charges. I would like to ask Matthew Cherry, one of our economists, to outline the key policy decisions that we have to consider over the next few months. There will then be further presentations from Railtrack and Booz-Allen, setting out some of their views on these issues before the open discussion.

MR M. CHERRY: Good morning. I would like to introduce the first of the more detailed sessions with a few words. Currently, there are two elements of access charges that vary with traffic. Traction electric charges and usage charges. The ORR has consulted already on principles and methodology by which the second of these charges should be set for the next control period in both our October 1999 periodic review document and in the technical consultation - specifically on usage charges - in November of last year.

There are different ways of measuring usage costs that can be used to derive usage charges. These usage costs are defined as the additional maintenance and renewal costs faced by Railtrack arising from an extra train running over the railway network. Railtrack undertook to carry out a programme of work to better understand the causation of costs on its network, as was described in the July 1998 periodic review document.

The consultants, AEA Technology, have provided expert engineering advice on this work, and last year the Regulator commissioned Booz-Allen & Hamilton to review the emerging results from this work stream which was published last November in conjunction with our technical consultation document on usage charges.

The November consultation set out two main options for driving usage costs to inform the setting of usage charges for the next control period. The first was the approach developed by Railtrack which was predominantly a bottom up approach. This means it considers from engineering principles the individual cost elements caused by an extra vehicle running over the railway network and adds together these individual cost elements to create a variable usage charge.

Booz-Allen & Hamilton have recommended that the ORR use a top down approach that estimates that overall proportion of total costs that can be considered variable and then divides this between vehicle types. The next two presentations will deal with these two approaches both of which use the underlying engineering relations researched by AEA Technology. Our aim in this is to ensure that the methodology chosen should not be overly complex and should improve incentives over the current system.

In deriving the charges the ORR also consulted on the issue of whether the short run or long run costs of renewals should be included in the variable charge and how the efficiency savings assumed in the periodic review should be taken into account in the setting of the usage charges. Both of these issues I expect will be dealt with in the next presentations. A short run approach to the renewal costs will take into account the expected level of renewals in a short time period - for example the next control period. A long run approach would take into account the total expected effect of extra traffic on costs which raises the issue of the appropriate way of estimating renewal costs that will be incurred many years hence.

Turning to the treatment of the assumed efficiency, the issue is whether the increase in the estimates of the costs should be adjusted yearly by an efficiency factor over the control period or whether they should be set at the level of efficiency it is assumed will be reached by the end of the control period rather than go up and down.

There are a number of specific areas where the ORR will need to set out its provisional conclusions in this area in the Spring. First, the basis on which Railtrack levies these charges. The existing system is a charge per vehicle mile for an individual vehicle type calculated on the basis of national averages for each vehicle type. The November technical consultation raised a number of options about whether there should be changes. Consultees, in general, tended to favour sticking with the status quo.

Second, the ORR also consulted on whether charges should vary for running trains over different parts of the network and, third, the November document raised the issue of the complexity of the charge that is appropriate and whether the charge should be calculated on the basis of individual vehicle types or for categories of vehicles types.

Fourth, Booz-Allen & Hamilton also recommended the introduction of a regime to incentivise the maintenance of track and vehicles. We have a session to discuss this issue this afternoon.

Lastly, we will also need to consider the implementation issue about when changes should be implemented and when the new charges should take effect. For example, this could either be in April, 2001 or when the new timetable comes into force after that.

I would now like to ask Booz-Allen & Hamilton and Railtrack first to present their respective proposals.

MR D. BOYDE, RAILTRACK: My name is Dan Boyde and I have been dealing with the work we have been doing in understanding usage costs and developing charges. I would like to start with a

quick run through the background so that people understand the work that has gone on. The joint ORR and Railtrack work programme was initially mapped out and agreed in the summer of 1998. We set out focussing on cost causation research to understand how our costs change with the objective of informing the development of efficient charges.

In carrying out the asset usage cost research. What we set out to do and this is a quote from our usage cost methodology paper, was to establish the "increases in whole life-cycle costs of maintaining and renewing assets that result from the operation of additional trains". The whole life cycle element of that is important. It is a key part of our philosophy that in estimating costs we are not trying to get right down to a micro level taking account of the specific bits of the network, rather to smooth these things over the life of the asset. We see that as sensible in terms of planning a charging regime. We would not see the charges shifting around and being inversely related to quality.

The principal element of the asset usage cost causation research has been the track cost model developed by AEAT. This update elements of the mini-MARPAS model which was used in the derivation of the existing variable charges and which was held with BR Research. To date we have run the model out to cover three zones so we have a good range of routes, with different infrastructure and different rolling stocks types to accommodate both passenger and freight.

As you are all aware, this has been subject to independent review by Booz-Allen & Hamilton and is subject to the ORR's technical consultation paper in November, 1999 and the industry responses in December, 1999. I hope you are aware, because we have circulated the papers, that Railtrack has responded in full to both those papers.

A few words about the charging principles. I think it is important to bear in mind, thinking about some of the detailed cost issues, where we are trying to get to and what the charging regime should look like. These charges should incentivise efficient use of the network. What we are trying to do is derive the appropriate signals about the cost of varying traffic to TOCs and ourselves. Charges should be cost reflective, we should be setting charges that ensure Railtrack is remunerated for the costs imposed by additional usage but, and I know this is one of the SSRA's concerns, traffic that does cover its costs should not be priced off the network.

We think that the charge regime should be stable, we do not want further changes, and that the nature of the charges should be comprehensible and transparent. In the context of long-term business planning, with longer franchises on offer, we think this is important to enable you to plan your businesses.

It should also incentivise continuous efficiency improvement and with the proposals we are taking forward this would be done with the X-factor in the standard RPI-X, ensuring that we only recover the efficient costs of maintaining the network.

I am not going to talk much about numbers today. This presentation is going to focus on some of the choices and issues in the consultation process but it is probably a good idea to bring people up to date

with where the cost research is emerging and the further work that has been done since the technical paper which was produced by the ORR.
What I have presented here in the graph is a comparison between the average charge per passenger vehicle mile, what is paid at the moment is 4.6p, with our emerging estimates of what the costs look like at this point in time. That is differentiated between the different asset categories we have been looking at.
The key message to take off this that firstly the existing variable charges are well below the track asset usage costs. While there is a debate about the overall extent of that change, I think the Booz-Allen & Hamilton review has said that the existing ones are too low.

This slide presents a summary of that. This shows our conclusions on usage costs, based on analysis of the drivers of usage costs. In order to give you a feel how the top down looks,we have compared this with our annual cash cost, and we have taken a baseline from the provisional conclusions analysis, so in each case the black section indicates what proportion of our overall expenditure we believe to be driven by usage.

The detailed track cost modelling sets the variable number at 47%, this is a function of usage. The variable signalling element is much smaller. Usage affects points, signal filaments and track circuits. This is dominated by renewals generally, very often, technology changes the driver.

The next most significant element is structures. It is clear that increases in usage have a systematic effect on under-bridges, principally metal ones, but also masonry. On electrification, contact wire and third rail wear with the passage of trains and we think that this is essentially a renewal element of expenditure that accounts for 18% variability. Looking at other assets and total infrastructure costs, this gives about 17% on overall variability of asset maintenance and renewal costs. This is a slight revision down from the time of the Regulator's paper where we were suggesting 20% and I believe the ranges suggested by Booz-Allen & Hamilton were 15-20%.

Moving on to the key issues, the first one that we see is how we define the efficient costs that should be reflected in charges. The Regulator suggested that charges should be based on efficient costs at the end of the review period. The consultation responses have been in favour of this because it leads to lower charges in the first four years.

We are strongly opposed to this proposal. It means that having worked out what you think the actual level of costs is, you then deliberately set charges to be below marginal costs for four years. This proposal is a disincentive to Railtrack to sell additional paths and undermines the fundamental review objective of improving the incentives on Railtrack and the Operators. It conflicts with all UK regulatory precedent and with the 1998 Railway Regulations. Our proposal then, subject obviously to debate about the value of the X factor, is that the conventional RPI-X should be maintained and charges should be based on what the costs are at the start of the next control period in 2001.

The next major issue from the consultation paper, as Matthew has referred to this morning, is whether costs should be calculated bottom up or top down. It is useful to define terms a bit here.

The bottom up modelling approach derives usage costs from detailed understanding of the asset degradation relationships, particular types of asset from additional vehicles as a function of parameters of those vehicles. The detailed modelling relies on extensive experience built up by BR Research and added to subsequently. In estimating a lot of very, very small impacts of individual services at a micro level, it is clearly important that it is calibrated at the top level in predictions of overall volumes of renewal that are required to ensure that when you add all the little bits together you get a sensible prediction.

What has been proposed as an alternative approach is top down. This uses a process to establish externally an estimate of what proportion of the total expenditure is considered to be variable. As I understand the suggestion, this is applied to average spending over possibly two control periods and we then rely on the detailed bottom up models we have developed to allocate these costs between different vehicle types. What developed through the consultation paper, what I think is misleading, is to consider these two options as a black or white choice and potentially being complete alternatives. We believe they are not alternative approaches they are complementary, and that any rational regime should certainly have looked at the question both from the top down and the bottom up. I will elaborate a bit more on that.

What can the top down approach give you? It gives a fairly good cross-check on approximately what the overall magnitude should be. In their review, Booz-Allen & Hamilton review a range of experience elsewhere and I think the key word is "range". We have 30-60% for track costs. Other variations are quoted and this did not seem to lead to a distinct and definitive answer. To date, we have not seen a process that will define a precise answer as opposed to establishing an indicative range.

We believe that the bottom up modelling process we have developed is robust. It has been subject to considerable review and criticism and we have responded to the criticisms that have been made. We believe there are no fundamental omissions from the model in terms of the materiality of the costs associated with those and we do not believe any errors in the processes that we have developed have been identified that would significantly affect the overall magnitude of the costs.

A number of comments made in the criticism of the model get on to points of considerable detail and this comes back to the point I made earlier about the relevance of asset condition. We have deliberately avoided trying to relate our costs estimates and charges to the condition of particular pieces of infrastructure. I think it is reasonable that where, as people have commented, we have averaged and simplified some of these relationships. Given the objective of establishing a variable charging regime, I think that those moves are entirely appropriate.

The Booz-Allen & Hamilton review did seem to endorse the relative costs and they have attempted to fit in equations which I think they are going to talk about more later. It gives some comfort that the different vehicle types come out in sensible rankings. From the original stages, it is clear that it was designed to be completely transparent. Almost all of the parameters can be changed and sensitivity tests can be done.

There has been a lot of debate about precise data input. Right axle loads, appropriate speeds, this can all be done relatively easily. This is a significant advance over the previous approach, where mini-MARPAS was considered a black box and I do not think anybody to this day understands how the charges came out of that.

We believe the bottom up model is the appropriate method of deriving charges. We agree that the sort of top down validation increases confidence in the magnitude of costs. The view put forward is important. We went through it internally ourselves from an early stage. My interpretation of their conclusion is that it gives us considerable confidence in the order of magnitude of costs with 15-20% variability. We have refined our estimates from 20% to 17%. If Booz Allen had said 5% or 50% I would be a lot more worried, but I think that gives us comfort that we are producing the right sort of order of estimates.

The other major issue in relation to costs which Matthew again referred to, is the treatment of renewal costs. Whether you base them on a long or short run. The long run is based on renewals needed to maintain the network in a steady state on the basis that you are carrying out a constant volume of renewal work each year. It is predicting a proportion of the life of an asset of each type consumed by a vehicle. The model can be calibrated against service lives summing these individual elements.

Some of the comments on the consultation process suggested there was great difficulty in estimating the long run level of renewal costs, given changes in technology that might be coming in, better materials, better processes. I think it is important to bear in mind that a control period of five years is a short period of time in terms of step changes in renewal costs where we are looking at assets with substantial lives. I would take the view, therefore, that in setting the value of X, for the RPI-X formula, these issues can be sensibly taken into account.

The short run approach starts with a top down definition of how much of the proposed spend is variable and then applies this to planned spend in the next control period. This is implicitly assuming the real costs of additional spend will be proportional to planned levels of spend.

This definition of the short run approach is not necessarily cost reflective. What matters is the change in spend, not the level of the base spend. To assess the impact of additional usage on our expected renewal expenditure in the short term, what matters is not so much what we are already planning to do in the next twelve years but how many assets are that close to renewal that an extra bit of usage is going to bring them forward. That relationship is not necessarily proportional and the work we have done focussing on that suggests that the costs are significantly higher, given the profile of asset age and condition.

The other aspect of the short run approach is that, by definition, it can produce unstable charges. In principle these may change significantly, up or down the level of variable charges at future reviews based on changes in the overall levels of renewal. I think the consultation debate has been slightly unhelpful in possibly leading people to think that the short run is going to produce a lower cost than the long run.

The long run approach, by contrast, gives stable charges and smoothes short run variation in renewal spend. It is linked to transparent asset renewal rates and has benefits in terms of certainty for planning for operators on long franchises.

There are a number of issues relating to charging dimensions in existing charges are national rates per vehicle-mile by vehicle type. There are three particular options, whether we should go to any form of geographical or route specific variation, whether consist miles is the appropriate metric and the question of a maintenance quality regime.

In making decisions about these, we need to have an understanding of what level of cost variation is associated with the change and understand what the implementation issues are, if any. With geographic variation, which I deliberately defined here as route-specific, what we have suggested, based on the cost research we have done, is that there are significant differences in levels of cost variation between different usage incurred costs, based on the difference in infrastructure.
The key drivers of cost we have identified will be variations in line speed and also in the complexity of the route affecting the density of switches and route crossings. We have not put forward any suggestions for geographic variations associated with differences in local working practices or local labour rates.

The following slide, which I will come back to, shows some of the variations in cost which we believe are significant. In terms of implementation, this is straight-forward. The model can produce all the numbers we need to have usage costs by service group. I am conscious that this is a suggestion coming out of the cost research. It shows that for different types of assets, the dimension that drives the changes in costs is different. Vehicle-miles is an appropriate metric for track. Some of the signalling costs are more appropriate to the number of trains passing rather than the tonnage, on structures. We are advised that it is the overall weight of the train rather - than the sum of individual vehicles - that matters.

The most recent structures analysis suggests that the actual difference between consist miles and vehicle miles may be relatively small but the best way of reflecting the true cost is to charge it to consist miles. Again, I refer to EC4T where rates are specified for the consist and in terms of comprehensibility I would have thought it made more sense to define rates for, for example, a four car multiple unit rather than for individual vehicles which you have to add up to get the overall charge. The quality regime we will talk about properly this afternoon, but within this framework I would suggest cost variation is not known and implementation is very difficult. Booz-Allen & Hamilton may be suggesting something this afternoon.

As an illustration about route-specific costs, I picked out some examples from London North East Zone here. These show values against an index of 1 which is the average cost for that vehicle type and is the value that we go for under the existing approach of national averages. So, with the class 144 trains on the Middlesbrough to Whitby branch line, not surprisingly these are relatively cheap, 15% less, while Leeds to Sheffield is 15% more. The Class 156 shows greater variation of +/- 3% on the national average. In discussion, it would be interesting to have some views as to this materiality of cost variation and whether that is something you wish to see reflected in the charging regime.

To summarise, first the charges should be based on the efficient costs at the start of the period, the conventional RPI-X approach, not front loading of five years of efficiency savings. We believe that charges should be based on the bottom-up cost estimates and the top down analysis gives a useful cross-check that we are identifying the appropriate level. Costs should reflect long run treatment of renewals costs and a key element of that is producing stable variable charges and no further changes at further reviews. Charges could be set by consist-mile by consist-type. That would be the most cost-reflective way of doing it would vary charges by route. We have identified significant variations in charges.

Finally, covering more on this this afternoon, the maintenance quality regime should be evaluated for the next periodic review, although that does not rule out different forms of track quality incentive in this next control period. This is all I have and I hand over to Booz-Allen & Hamilton to follow up.

MR BULLOCK: Good morning. My name is Dick Bullock, I have been working for Booz-Allen & Hamilton on the alternative approach to calculation usage costs which I am going to outline this morning. I am going to talk in four sections. First of all I will briefly outline the approach that I adopted and then I will talk briefly about first of all how we drive the aggregate variable costs, that is, the quantum of costs, the total amount of costs that are going to be recovered through usage charges. Then I will talk about how we attack the problem of relativity of different vehicle types and lastly, the procedure by which we propose actually estimating the costs. I am not going to talk about the numbers because the main thrust of what I am talking about this morning is the method rather than the particular numbers.

First of all, I will just repeat aloud - which has already appeared twice - the Regulator's objectives, but as we are working for the Regulator, this has been a key thing in the way we have gone about doing this. In practical terms, what we have tried to do is to develop an approach which is first of all consistent with cost structure at the macro level. In other words, develop an approach which is consistent with the aggregate expenditure.

Secondly, we want to develop an approach which is consistent with cost variation at the macro level. Different passenger vehicles and freight vehicles reflect the relativities of the costs that they impose on the infrastructure. But, thirdly, we want an approach that is transparent, that people can understand, simply and easily. Fourthly, we want simple and clear rules that can be easily up-dated. These have been important considerations in what we have done.

So, what is our approach? Well, as Dan said, it is a top-down approach. This means that you start with a total amount of expenditure and from that you estimate how much of the expenditure is variable. You can do this by type of infrastructure and we have done it by the main groups: track structures, signals and within track we have looked at the main elements of track-related costs, maintenance and then renewals by type of infrastructure. The variabilities which we apply to this aggregate expenditure we have developed by analysis of the literature. There has been a lot of work over the years. As Dan said, this has produced a range of results but I will briefly comment on that when I get to that section, as to why we have picked the numbers we have.

The second step is to estimate the usage of the network. Years ago, this was just measured in terms of gross tonne miles but as time has worn on, people have understood more about the ways in which damage is caused by different sorts of vehicles. They have introduced factors which adjust for speed which is the equivalent gross tonne miles, the UIC approach. You can introduce systems adjusted for speed, axleload and factors for other vehicle characteristics, but it is a simple straight forward process and we have developed these factors based in large part on the work that has been done and then the third stage is a matter of using the aggregate variable expenditure, dividing it by the usage and each vehicle type then represents so many units. So, if they have a heavier axle-load they will use a bit more. If they go a bit faster they will use a bit more and so on.

So, aggregate variable costs. We say well, we have derived these from forecast expenditure. There is this debate about short run versus long run. I think there are arguments from both sides. I think most economists would generally support the long-run, certainly much of the economic literature in favour of life-cycle costings. How do you estimate it? Certainly, in many other infrastructures, this has still a long way to go in life cycle costing and looking at expenditure over a period has the advantage of certainty and with some of the life cycle costing you may be paying for assets that will never ever be replaced. One cannot imagine some of the rails on some minor branch lines being replaced, certainly in my lifetime.

We adjusted from forecast efficiencies. As Dan said, there are ways for doing this. The variabilities are based on published analyses. There are many of these sources and they go back to the 19th century. There has been much work done in other countries on this, particularly in the US, but there has also been work done in Canada, India, Russia, China, Australia, many, many places. A wide variety of types of infrastructure, types of operating conditions and they do produce different answers but there are reasons for this. It is not the case that it is completely at random, whether it is 30% or 60%. This diagram is similar I think probably to the one that Railtrack put up but it shows the total costs by function that we have considered as having some element of usage. We have track which is the biggest component, structures, track maintenance and renewal, I should say, structures, the maintenance element of signals and then the electrification which is the overhead, continuing third rail, *et cetera.*

On the left-hand side, you can see a component of that that is usage-related and over all it is 25-30%. You can see also that the bulk of the variable element is track followed by structures and a minor amount for signals. I think this diagram has the same general characteristics as Railtrack's. The electrification elements we have included here but as far as charging is concerned, I understand that the Regulator proposes that that be part of the EC4T costs.

Now, variabilities. This, of course, is the guts of what we are about. What I am putting up here is our views as to what these numbers are. Track maintenance, various analyses that have been done go from 30% to 60%. These are all discussed in the report which we wrote, in the box at the back of the report, but the thing to remember about track maintenance is that there is a fixed element in track maintenance and then a variable element. It depends very, very much on where you are in terms of volume and generally speaking, the higher variabilities are the ones from the heavy usage railways in the US. When you get down to the lower density railways - and the UK, with only under 5m tonnes

per track km, is a low density railway by world standards - of course, the variability as a proportion of the total cost is much less and 30% is consistent with the sort of variabilities you get at the generally low tonnage railways whose tonnage is of the order of what the Railtrack average is.

Of course, within the UK it will vary from line to line. High tonnage railways have a higher variability proportion than the lower tonnage. For renewal, 95% per rail. Sleepers and ballast we based on the asset lives that were used in the Asset Management Plans put forward by Railtrack. There were a couple of graphs in material that has been produced which shows asset lives as a function of usage and, of course, both these have environmental components in them or they are a function of elapsed time as much as they are a function of usage.

If today you are going to get a sleeper wearing out through usage it has to be a heavy tonnage. My Russian colleagues tell me even with Russian technology they get 1.6 million tonnes per sleeper. The corresponding number in the US is different but you can imagine that is an awful lot of years at the average track density in the UK

Switch and crossings we have taken 80%. They are undoubtedly heavily affected by usage and I think that is a reasonable number, but the key thing to remember including at this variability is that Railtrack is a relatively low density railway. The relativities between vehicle types, we have developed by building on the work that was done by AEA and in particular by the results that were provided by Railtrack for the London and North Eastern zone. That is a subset of vehicles on a subset of the network but it is quite a large subset so I think at this stage, it is not a bad basis to be working on. There are two commonly accepted drivers or influences on the effect of vehicles on track: axle load and speed.

These are acknowledged in almost all the literature and, of course, there are other influences as well which are details of the bogie design and so on and so forth and generally locomotives are recognised to do more damage tonne for tonne than ordinary rolling stock. So, what we did was to fit a regression model, statistical analysis of all these results for these. 120 different bits of rolling stock running over London and North Eastern and that is this graph here which you will not be able to see in the black and white print outs in all its glory, but these just show that the costs along the bottom are the costs that came out of the AEA model.

The costs up the side are what you get by looking at the regression and you can explain 80% of the variation in costs between these vehicle types simply and solely in terms of the axleload, the speed, whether it is a passenger locomotive or a freight locomotive or passenger rolling stock. Obviously, you could build on this and include a few more variables for particular bogie characteristics, but when I did this I did not really have the more detailed information. One or two of these outliners here, like this thing out here, that is actually a very low mileage vehicle. In my view it is just as likely that there has been a mistake in punching in the data as doing anything else, as it is so far away from the general pattern of things, but I think these results support what Dan said. The results show that the AEA model at the micro level, I think is generally sensible and it produces results which conform to general experience from macro analysis.

So, having got a relationship from these relativities, how do we put it all together, well, first of all for each vehicle type, we need to know how far is it going on the network. How many vehicle miles are there by vehicle term and more importantly, for the freight, how many tonne miles are there for each of the main classes of vehicle? So, you then look at each of the vehicle types and you say, "Well, we need to adjust the tonne miles for the axleload" and the axle load adjustment factor is such that if you double the axleload the cost per tonne or the damage per tonne is going to go up by about 30-40%. That came out of the regression but it is also consistent with what has been produced in various top-down analyses around the world.

The second thing we need to provide is the operating speed adjustment factor and as it happens that is pretty similar to the factors which are in the UIC equivalent miles calculations. I think it is probably not a coincidence because I am sure it is the same basic research which is underlying the AEA and the UIC calculations. We had specific adjustments for passenger and freight locos. Passenger are 40% more than a standard vehicle tonne for tonne; freight locos are 13%. That is what came out of that analysis. We have then also allowed in the same sample that we did in the report, special factors for spillage but nowhere near as big as what was in the original analysis that we saw. This is clearly a technical issue about which I think there is probably quite a lot of work to be done. Two-axle, four axle wagons and also an allowance for track-friendly bogies or three-piece bogies versus the others.

Having established each of these factors for each vehicle type and they are fairly simple to establish, you multiply them up, you get your adjusted tonne miles divided into your total costs and that gives you a cost per tonne mile and you can thus derive a cost per tonne mile for each vehicle type you convert into vehicle miles, consist miles up to how you want to apply it. So, that, in a nutshell, is our approach.

I will just finish now by summarising what we think the benefits of this approach are. First of all, it is consistent at a macro-level with overall expenditure. It is also consistent at micro-level with individual vehicle characteristics. So, you want to support the good vehicles, encourage the use of better vehicles, if I can put it like that. In my view, it is transparent and understandable and also it is easily updatable.

MR PLUMMER: Thank you very much. We want to go straight into questions from the floor on any of the presentations on usage charges. If you would like to put your hands up and a microphone will find you.

MR S. BAKER, NORTHERN SPIRIT: It is strange that the Whitby branch should manage to find its way into such an august gathering! I am neither a lawyer nor an engineer but I am a scientist with an inquiring mind and I am somewhat baffled by the examples given by the AEA about the costs the train operators are buying journey times from point to point and I suspect what has happened in the calculations there is that people have assumed that the Sheffield train flies along at line speed. In practice, it makes so many stops, it is barely quicker than the Middlesbrough line and since the line is welded track on Sheffield, and pretty dreadful on Middlesbrough/Whitby, I suspect there are a number of factors gone wrong in that calculation and I would expect the basis of the calculation should always be the train speed, not the line speed, because that is what we are buying.

Otherwise,for operators like ourselves, 99% of our stock is designed for high speed running, designed for all stations on local services on high speed routes. We are going to be adversely affected by that. We would be better putting lower speed stock or putting a speed restriction on the trains. I think something is fundamentally wrong with the speed calculation against the usage.

Then if you move on to the crucial routes where 5m gross tonnes would be phenomenal, we are probably talking about a number that is a tenth of that and from what Booz-Allen & Hamilton have just said, there is going to be virtually no variability in trackwear at all, dependent on usage. Most of the factors are different from that. I would expect that for the crucial routes; where we are trained to encourage traffic development at marginal costs, this review is probably going to do very little.

MR PLUMMER: I think what I will do is ask Railtrack and Booz-Allen & Hamilton to respond to any major points that arise at the end of this session. So, are there more questions we want to take now?

MR McTAVISH: One of the key tests of this is what it actually does to output on the rail network over the next few years. What has been done? If I were a politician, I would say, "this is all very interesting, but just tell me what is it going to do? Is it going to reduce the number of passenger trains? Is it going to affect ROSCOs? What are the effects?" Presumably, that has been done. Can someone explain the effects? Let's make the assumption. What does it actually do? Thanks.

MR PLUMMER: We have said that we are going to be doing some further work on this. The basic principle we start with is the need to identify cost reflective charges for an efficient operator, but you are absolutely right we need to understand the implications of that and Railtrack have been doing some work and we will be doing some more work on that over the next few weeks and months. I think that is probably all we can say at the moment about that.

GEOFF HORTON: I am a consultant. I just wanted to put a question to Railtrack if I can. The long run charging fits into successive reviews. After all if you take in charges on the basis of long run costs and then you come forward to the next review and you have got an estimate of what you need to spend there is a sort of double counting there; do you imagine setting up a sort of sinking fund for dealing with future renewals?

DAN BOYDE: I think the point with long run charging is we are looking forward in favour of establishing a stable variable element of charge and on that basis any significant variations in the overall expenditure requirements from one period to the next would be dealt with through step changes in the fixed charge. This means that the changing signals are not the ones that are directly there to the operators; it is for the funding bodies amongst through the support of the fixed charge, to deal with the changes. So as in future periods there are changes in the renewal expenditure that is actually required. We are trying to sell the benefits here of passing on a stable variable charge that comes down slowly in line with efficiencies that can be achieved, and step changes in what total expenditure is required are dealt with by corresponding changes in the fixed charges.

MR PLUMMER: I am not sure you have dealt with the point that effectively is about the lags in the maintenance and renewal work where you might get paid for work under a cost reflective long run variable charge but not have to do the work for some time and then subsequently recover the money again in future price control periods as part of allowed renewals.

MR BOYDE: Within a review period total revenue is the sum of the fixed and variable charges, the fixed being determined from the drop down residual revenue requirement, within any five year period we are never going to be allowed to make more than we are requiring to spend in that period.

GRAHAM SMITH, EWS: A question for Booz Allen. In their review of the AEA model of which they spoke so highly, did they find any flaws in it whatsoever, any perhaps omissions in terms of the way in which track geometry was dealt with or vehicle characteristics. We would perhaps welcome a bit more detail on that side?

DICK BULLOCK: Thank you for that question. We have not been privy to the full details of the AEA model. Although we have had quite a lot of technical explanation we have not actually seen calibration results in detail in terms of does the model reproduce physical quantities of work done, or does it reproduce the actual expenditure? So I would have to reserve full judgment as to whether we endorse everything in it.

However what I meant to say was that the general characteristics that come out of the AEA model confirm to general experience in that the heavier the axle load the more damage there is and the faster the train the more damage there is. There are quite a lot of issues to do with track condition, to do with geometry, that the AEA model may or may not take into account and that is really one of the reasons why we have been pretty interested in trying to find out how the calibration actually works in practice when it is applied to a total network, because my whole experience of all modelling, costings etc, is that work which is done at a micro level can be impeccable, ten out of ten, yet when it is grossed up at a macro level there is a gap for all sorts of reasons, be it things that are left out of the model, be it things that over-modelled, under-modelled, and it has happened to me; I have been doing these models for 30 years and it has happened consistently to me.

So yes, there are some technical issues on which there was debate; they are in the report that was issued, but because there were quite a lot of them that was one of the main reasons why on balance we went for a top-down model because that is a model which has a known control and where you can be confident that by and large you have taken all these extraneous factors into account.

I would like to say one other thing as well which is all about this business about does track condition have an impact on costs? Does curvature have an impact on costs? Yes, of course it does. As we know the life of rail on curves is a fraction of what it is for tangent track; it may be a quarter or may be a fifth, in extreme cases it is a tenth. I have never suggested that charges should be made on the basis of whether you are going round a corner or not, but nevertheless if you are trying to calibrate, if you are trying to determine whether a model is able to reproduce what is actually happening in practice, you clearly have to take into account whether the area that you are calibrating against has

good track, bad track, curved track. So it is a matter of checking that what is being produced in theory conforms to what happens in practice.

STUART HOLDER: From NERA and here today as adviser to ATOC. I am a bit confused what Railtrack is saying in relation to the importance of having stable charges over time. There are two elements of this in the most recent Railtrack presentation. First there was the question of what happens almost immediately in terms of adjusting the variable charges for the previous under-recovery and in that case Railtrack seemed to be saying that charges have to move precisely in line with costs; they have to rise from their current low level to the level which is expected to prevail at the start of the review and then go back down as Railtrack achieves efficiency. So in that context Railtrack seems to be saying that charges must always be in line with costs, and if charges go up and then down it does not matter, whereas when we came along to the difference between long and short run element estimates of cost, then Railtrack seem to be arguing for stable charges over time which to me would imply that you will have some periods where charges are a bit below cost and some periods where charges are a bit above cost. There seems to be a conflict between these two positions and I wonder what Railtrack really says in relation to stable charges over time.

STEPHEN GIBSON: I think there are two separate issues here. The charges that are currently levied are based on usage cost research developed for BR when they were working in an integrated railway network. They were based on very different costs because a lot of them were not actually exposed to commercial markets. Therefore what we are seeking to do is to correct for the true cost over the life of the assets that Railtrack currently faces. That would mean a one-off adjustment as you say.

When we are talking about long run versus short run costs what we are suggesting is that Railtrack's overall revenue should be recovered through the total revenue requirement and therefore you would have adjustments to the fixed charge that would reflect whether or not you are in a peak or a trough in terms of renewals, whereas the variable charge would reflect the long run steady state approach, so we would not under or over recover in the control period because that would be taken account of in the fixed charge in the total revenue requirement, based on the overall conclusions of the Rail Regulator.

DAN BOYDE: If I can come back on that. We are consistently proposing that the variable charges should be stable and that any further variations following this one-off correction should come through the fixed charge. Referring back to the objective of today to get the incentives right, it is the variable charge which sets the incentive and influences TOC behaviour, that is the one that it makes sense to focus stability on.

IAN SMITH, EWS: I would like to ask both Dan and Dick what are the fundamental asset life assumptions underpinning the model. We have asked Dan this several times in the past, but we have never actually had an answer. We have conducted our own modelling work on this which concluded, for example, that rail which Railtrack currently uses, lasts about as third as long as some other kinds of rails they could buy, but I would like to ask that again, what are the rail lives expressed in millions of tonnes in years or anything you wish?

MR MIDDLETON: Can we come back on that?

DICK BULLOCK: A very interesting question. I have a little black book of asset lives that I carry around with me from other places I work around the world and I would have to say they are a bit different to what I meet in this country. I cannot comment precisely on what Railtrack have used, but generally I expect a rail to last between 600 million to a billion gross tonnes, that is for l00-ll0-120k operation 20-22 tonnes axle. Of course it depends on the treatment you apply whether you grind it, whether you look after it and so on. I do not know exactly what assumptions Railtrack have made because we have done a top down approach in which we have got a total expenditure for rail which I have taken to be in this particular case 95 per cent variable with usage.

In terms of sleepers the asset management plan I did look at the graphs that Railtrack and AEA produced and what happens is that they have got graphs of the life of the sleeper versus tonnage and to me it was broadly equivalent to assuming that you have got enough usage; so assuming you have got 30 or 40 million tonnes going over it it has got a life of about l.6 billion equivalent gross tonnes. Now an equivalent gross tonne, I do not know how many of you are familiar with this, but this is a gross tonne adjusted for speed and axle load, but in terms of ll0-120 kph running on 20 tonnes axle it is probably about 20 per cent more than the gross tonne number that people usually use, so that is similar, a bit less than numbers that are quoted in other parts of the world. Of course the number of people who have actually ridden concrete sleepers to destruction you can count on the fingers of one hand and ballast also I would say in my general experience it that it has quite a long life in terms of tonnes. Environmental factors have quite an effect in the light of these things and I must say I do not know what happens in this country, but in other countries concrete sleepers, whenever they go, it always seems to be because of concrete cancer or derailments rather than actually wearing out except for the very heavily used railways.

DAN BOYDE: I think as to providing numbers we will have to take that back and provide a written response. I am not aware of having been asked that question and failed to respond to it before. There are a range of different asset types involved and lives vary with the annual tonnage. The models that we are using are consistent with the service life graphs developed in the asset maintenance plan process. Dick has alluded to the cross-checks that they have done on some of those. A particular point I would like to pick up which was mentioned again there, the issue of environmental effects and how much of that relates to usage. There was a comment I think in Dick's presentation about whether some of these assets would ever get renewed and, on very light tonnage routes, are these charges paying for the renewal of assets that will never get changed? The dominance of environmental impacts at low tonnages, i.e. below 5, particularly below 2, is taken into account in the modelling. The contribution to the overall usage cost estimates of renewals on very light tonnage routes is absolutely minimal.

We will make a more detailed response about the calibration which I thought we had answered. I was not aware of outstanding things and we will pick that up in further correspondence.

TONY BERKELEY, RAILFREIGHT GROUP: I am interested in what work Booz Allen may have done on best international practice because when Ed Burkhardt was chairman of EWS he kept

on saying that the cost of maintenance and renewal of the US Class l network was about a third of what it is here. Is that Booz Allen's experience because when we are looking at RPI-X, X becomes quite a big figure if one is expecting Railtrack to get into the international best practice level of expenditure on renewals and maintenance within one control period or possibly two. Has any further work been done on that?

MR PLUMMER: I will respond to that. There is some further work that we are initiating or have already initiated to look at that. I think it is primarily a matter to do with the overall level of charges rather than the structure of charges although it clearly impacts on the efficiency as such in the usage charge. Yes, we are certainly doing more work on that and we will be over the next few weeks and months.

MALCOLM GRANT, LONDON UNDERGROUND: The calculation of these charges are obviously horrendously complicated. One of the problems that we struggle with in conjunction with Railtrack, albeit on a very small scale compared with national railways of course, is how we actually assess what real value we are getting out of the investment that Railtrack are putting into the sections of line that we actually use over a period of time. I wonder if anybody can highlight our best practice on some of those issues please?

MR MIDDLETON: You are relating it specifically to investment on your bits of the network compared to the inputs which you make in terms of your track access charges. That is slightly different from the discussion we are having this morning which is about the variable element which is where we are trying to align incentives between Railtrack and the train operator, that is the driving thrust for that. The overall relationship between one particular train operator's access charge and investment on that particular bit of the network is quite a different subject. That relates to the fact that the charges are a network charge proportioned round all of the different train operators. There is not a direct relationship between the input of one train operator's access charges and the investment taking place on that specific bit of the network at any one point in time because of the way the charge is calculated.

MICHAEL BESWICK: I think clearly a number of people here including you Malcolm were at the seminar on model clauses a couple of weeks ago and clearly one of the things we want to do in the access agreements is to get a much clearer handle on exactly what the train operator gets for his access rights and clearly the model clauses exercise does not affect LUL in the sense you have not got a regulated access agreement, but clearly the model clauses exercise would help other operators deal with the problem you have got.

IAN SMITH, EWS: Dan said that the approaches between the two methods were complimentary and not alternatives. He also stated that he felt he gained comfort from the fact that the variability ranges were similar. In that case why are the results so different?

MR BOYDE: The short answer is they are not. I am not quite sure what results you are comparing. If you are looking at the numbers presented in the Regulator's paper we have refined our estimates slightly and I would leave it to Booz to comment on the status of theirs as to whether it is their

attempt at a definitive answer or just an illustration. As I have understood it, it was an illustration of how their approach would lead. I think it is slightly unhelpful for the consultation process that you have been presented with a set of choices and the belief that one option necessarily led you to a lower charge which I do not think is the case.

MR BULLOCK: We have not changed ours, not that I am aware of. I think the main difference is primarily the track variability and I should say this and this is for our colleague from Northern Spirit, when I did the sums I adjusted the process so that the speed factor is in terms of what I judged to be average operating speed. Of course for the purposes of the paper I estimated operating speed for the different types of rolling stock based on the type of service they were in and also the maximum speed that was available, so in general that would have impacted on certain operators more than others because of the way the original estimates were made. That is to do with the relativity of the costs, not the absolute.

GRAHAM SMITH, EWS: All I would like to know in response to those comments is what figures are we meant to be looking at in terms of comparing the two methods. Now I have got the Booz Allen report in November l999 which compares Railtrack's estimates and the BAH base and a much lower figure for the BAH efficiency. If these are no longer the current numbers what are?

MR PLUMMER: Are you asking what the current BAH number is, is that the question?

MR O'DONNELL: I am asking, the Railtrack numbers in the l999 report said that the average passenger charge for a thousand gross miles is 364, and the BAH base is 285. On a pence per vehicle mile the Railtrack estimate is 1584 and the BAH base is ll83. The freight numbers are even more different. Are these still the current numbers that we are thinking about today or are the numbers now closer together based on what Dan and Dick were just saying?

MR PLUMMER: I do not know how much the Railtrack figures have changed.

MR BOYDE: I think possibly for today the real answer is that we should not be looking at precise sets of numbers; we should be thinking of the appropriate application of principle. Specifically on where we are at the further updating of our work which was reported to the Regulator, but has not been circulated, very crudely speaking the overall reduction in the cost against our previous estimate is five to ten per cent. In relation to freight Graham is well aware there is ongoing correspondence between us about getting the freight vehicle input right and making sure we have got accurate data for things like axle loads and we have got appropriate model speeds. As and when we have got a full data set we will be able to provide EWS with an updated estimate with some serious numbers that we can discuss. I hope that will be achievable in a very short space of time.

MR O'DONNELL: It is a point of clarification really, on efficient costs. Can Railtrack clarify, are they arguing that usage charges should be set above the efficient level of costs and if so why do they regard that as being in the public interest?

MR BOYDE: The simple answer is, no we are not.

MR GIBSON: We are certainly agreeing that they should be set at the efficient level of costs in the year in which the charges are set. However, what we do not believe is that if you expect us to reduce our costs by X per cent per annum over the five years that they should be set in the first year based on the expected costs in the last year of the control period.

STUART BAKER, NORTHERN SPIRIT: I am sorry to come back, but I still do not understand the fundamental point and perhaps we will have a chat over lunch about that, but I believe I understood Railtrack to say that for environmental factors the critical routes were two million tonnes and under in terms of track usage. My rough calculations makes that 5 two-car DMUS per hour over the year which is virtually all of our routes in which case we should not really move to variable cost structures.

MR BOYDE: I am not quite sure I understood the question. The cost estimates which we produced for all the services are calculated in a consistent manner. I think the point about the low tonnage routes is if you look at the contribution from usage to the overall renewal spend on those routes it is accounting for very very little, so if you sum up all those issues they will not pay for much by renewals and that will be picked up in the fixed charge.

MR MIDDLETON: I just want to make a comment or put a question. We are here today to discuss the variable charges for access to the network. Railtrack is not here to defend its position. It has put forward some propositions to the Regulator's office and we are here to discuss them. What we are arguing is that the variable charges should align us with the train operators so we are all moving in the same direction to make effective utilisation of the network. How you calculate those charges, how you get into the numbers is almost a secondary issue after you have gone through the principle. I would really like to hear from the body of the meeting whether they are totally against the principle or in favour of the principle rather than getting into anguished debates about the actual level of the numbers.

MR PLUMMER: Does anybody want to respond to that, at the level of the principle? (No response)

In that case we will move on to the next session which is about the capacity reservation fee. I will ask Matthew Cherry to open.

MATTHEW CHERRY: Just to introduce the concept of recovery of congestion charges and the capacity reservation fee. Railtrack had proposed that the so called congestion costs are recovered through a variable charge which they have used the term capacity reservation fee to describe. The congestion costs in this sense are defined as the expected increase in Railtrack's performance regime payments resulting from an increase in traffic on the network and the resultant reduction in flexibility and ability to recover from the effect of an incident. I will leave a detailed description of these costs to Railtrack's presentation, but the high level principle is that the efficient level of these expected costs needs to be recovered in some way from the users. The present system recovers them through a fixed charge and this includes both an element of the fixed charge for base rights and an element in the fixed charge for supplemental access agreements. An alternative would be for the congestion element to

be recovered through a tariff set in advance for a particular service: time of day, geography, the flex of the service might all be dimensions on this charge and again I will let Railtrack explain their view of the appropriate dimensions.

The Regulator would of course have to approve any method for calculating any such charges. The basic principles are that such methods should be transparent and predictable to provide incentives for operators in the running of services. No changes to the expected level of revenue that Railtrack raises through these access charges would be expected. Such a charge should not merely be a way of raising revenue from increasing congestion on the network. Any capacity reservation charge should not dull the incentives to improve performance or to enhance the railway network. To avoid this the ORR would need to set predetermined caps to the level of revenue that could be raised through such charges.

There is also an issue concerning the extent to which individual charges should vary between years to accommodate changes in the capacity to the network. Clearly actual congestion is likely to reduce where, for example, an enhancement creates extra capacity and so one might expect the charges to decrease. If such a charge is introduced this will be an issue on which the ORR will need to decide, that is, whether the individual charges, the unit charges, should be changed in the light of changes in the capacity and functionality of the network.

To summarise the high level issues on which the ORR needs to decide, there is, first and foremost, the issue of whether a predetermined tariff should replace the current fixed system. If a predetermined tariff is introduced there is also an issue of implementation concerning when it is introduced. There is a session later this afternoon concerning the implementation of changes to the structure of charges, but it may not be suitable to introduce all the changes to the structure of charges in one go. In order to control the effects on the timetable we are considering whether any predetermined tariff that is introduced is done so during rather than at the start of the control period.

Further, if the charge is introduced the ORR will need to decide in broad terms the method by which the charge is calculated. There is the question of the services to which it applies, for example, whether it should apply to all services or merely additional services or services above the PSRs. If congestion costs are recovered through a variable rather than a fixed charge then the fixed charge will need to be adjusted to compensate for this and Railtrack revenue stays the same.

Another important issue will be the mechanics of how this is done.

Lastly, there is the issue of setting the cap on the overall revenue raised from these charges and this relates to issues of assessing the efficiency of the network and use of the network.

At this point I would like to hand over to Stephen Gibson of Railtrack to explain in more detail how they envisage this potential charge working.

STEPHEN GIBSON: I am going to talk about a proposal to have a capacity reservation fee to recover the congestion costs that arise when an additional train operates. There is a certain amount

of confusion in some of these consultation responses as to what exactly those congestion costs are. It is fairly widely accepted that there is a relationship between traffic on the network and the expected delay on that network. Railtrack has to compensate train operators for delays through the performance regimes. As new trains increase the expected level of delay increases. Therefore the compensation that Railtrack pays will increase as capacity utilisation increases. The expected delay increases exponentially and so therefore do Railtrack's costs and it is those costs that we are seeking to recover.

Railways are not the only industry in which congestion costs arise. In air traffic control, research by Eurocontrol has estimated that a 1% rise in traffic produces a 5% increase in delay which is a higher amount than that which we have estimated on the railways. The Civil Aviation Authority are considering a congestion pricing regime for National Air Traffic control systems and the US Transportation Research Board have recommended congestion charges for allocation of capacity at US airports. We are familiar with market based peak prices which reflect the extra demand in other UK network industries such as electricity and gas.

Within the current regime expected average congestion costs are recovered as Matthew said through the Schedule 5 rights as part of the operator's fixed charges. However, on a marginal basis operators face no financial signals which impact on their charges when they make changes to time-tables for rights which come through Schedule 5. When, however, we talk about additional rights, these are calculated on a case by case basis when the operator requests those rights. Our feed-back is that there is a fairly limited understanding of the methodology and it is perceived as a bit of a "black box" as to where these congestion costs actually come from.

Railtrack suggest replacing the existing case by case modelling of additional charges with a tariff that would recover the marginal congestion costs for both existing and new access rights. The tariff would be published in advance and publicly available, and additional payments would be made when the capacity is used. That is when the path changes are bid into the timetable.

The fee would be financially neutral in expectation. Base revenues would be netted off from the single till and we would simply recover the expected marginal cost of those rights. We are not seeking to make any money out of this, we are simply seeking to recover the costs that we face. There would be a transparent methodology with prices being clear, simple and unambiguous. It would reflect the costs that we face, be easy to update and provide signals that change behaviour.

A number of benefits occur to all the industry players. For example everyone benefits from avoiding the transaction costs of negotiation and also the reduced overall delays that can be expected to arise as operators are incentivised to use less congested parts of the network. Similarly operators would benefit from releasing the value contained within their initial set of rights. I know that there are a lot of constraints on that regarding the PSR, but for example if operators do not need as much hard wiring in their current rights they could relax that and that will save Railtrack costs and will save them in terms of charges. The charges are transparent and facilitate forward planning for all parts of the industry and would signal where investment is likely to offer value for money and optimise use of the existing network.

Because the performance regime recognises the social value of capacity through the OPRAF top-up in Schedule 8 this would reflect the social value of the capacity, not just the commercial value.

Congestion costs do vary significantly by time and location and in a reasonably complex way. As you can see there is quite a variation across the geography of the network and through the time-table. For example here we have got the Brighton Mainline going into Brighton. So you can see trains leaving Victoria in the peak of around 5 and 6 o'clock have significantly higher congestion costs than the rest of the day. Whereas for example on the East Coast Mainline it is much more evenly spread throughout the day.

Therefore there is a compromise that needs to be made or a judgment that needs to be made, in setting the appropriate level of tariff between complexity versus accuracy and a decision about the appropriate level of granularity for the tariff. Charges for example vary minute by minute across the day. It would clearly be horrendously complex to construct a tariff that had a different charge minute by minute across the day. Similarly you could have a very aggregated tariff that was over-simplified and did not provide any signals to where congestion is on the network. There is a judgment call in setting the level of tariff cells between complexity and accuracy. We have done work that is based on l000 geographic cost cells across the network. Those are all the sections of the network where trains either enter or leave the network so you would expect to have the same level of congestion within these areas. You have to multiply that by two because congestion varies by direction of travel. Then we have made a judgment call that says the reasonable reflection of cost variability is l3 time bands, seven Mondays to Fridays, four for Saturdays and two for Sundays, and multiplying that up gives you approximately 26,000 tariff cells across the network. We compare that with, for example EC4T, where there are over 2000 consist types each with 9 season time of day bands and l0 tariff zones giving over l80,000 different charging cells for that.

The level of geographic disaggreggation is very subject to judgment and it may be sensible to combine some locations with similar levels of costs, or have some *de minimis* level to the congestion tariff which would significantly reduce the complexity and number of tariff cells.

The speed at which trains operate is also key to congestion. Most significantly where trains run either significantly faster or significantly slower than the current speed mix across the network. We suggest, because it is rather difficult to predict in advance for a train running a long way outside the current speed mix what the congestion costs are, that that is outside the scope of the tariff. The tariff will be for the existing speed mix which would predictably be the overwhelming majority of all the new access rights.

The amount of flex that a train has is another key determinant and we would see that as an overlay, as a multiplier, on the tariffs.

What does that all look like in terms of a tariff schedule? We have got an example here, the Midland Mainline between Sheffield and St Pancras. You can see it would be a set of charges per mile along

the route with a set of flex multipliers, for the flex associated with the rights, and you can see that for this sort of TOC you can fit it on one page of A4 quite comfortably.

What it looks like diagrammatically is this. This diagram shows for the same Midland Mainline route how charges vary across the route and you can see how congestion increases as you come towards the St Pancras end of the line.

The key point of having a capacity reservation fee is to provide a signal of the relative costs. So for example, here is a comparison of cost operating in the peak compared with the off-peak for various train services, Leicester, Bedford and Luton to St Pancras. You can see there is quite a significant difference in price between peak and off-peak, and this reflects the difference in cost that Railtrack faces.

Similarly varying the level of flex can reduce the charge and the cost that Railtrack faces. Here you have got a comparison of a train with no flex compared with one having plus or minus ten minutes flex. You can see how that reduces the capacity reservation fee.

Through the consultation process, a number of questions have been raised about the capacity reservation fee. For example, would it price off marginal services? Well operators already pay congestion costs, so this is simply replacing that case by case modelling with a predictable and transparent tariff. Are the proposals too complex? I have already talked about that.

We have already had comments about whether some TOC's decisions are driven solely by public service requirement. Well, at worst this would simply make the congestion element explicit and would not affect TOCs at all, but it would allow TOCs to increase their control over their costs through, for example, making changes to flex and making changes to the time-tabling of paths within their PSR.

There is some confusion about what costs are actually recovered through the performance regimes. Performance regimes deal with the reliability of the train being introduced, so if a train is delayed through Railtrack's fault, Railtrack compensate the train operator, and if it is through a train operator's fault then they compensate Railtrack for the expected TOC-on-TOC effects. This is not dealing with that at all. This is dealing with the compensation on existing trains of putting a new train on the network and therefore increasing the overall level of delay.

Matthew also talked about the incentive to invest. The capacity reservation fee would signal where investment is necessary. It would not seek to remunerate that investment which will come through a totally different process. You would need to ensure that Railtrack's incentive to invest was maintained in the light of the capacity reservation fee.

Also Matthew talked about how the CRF would apply to services on upgraded capacity which lowered the amount of congestion as created by enhancements. We would expect that to be part of the negotiations over the enhancement upgrade, but I guess the default would be that the CRF would be based on the post-upgrade level of congestion, and adjustments to the fixed charge would be subject to negotiation.

In summary, the proposed capacity reservation fee would recover the congestion costs that Railtrack faces as a result of us having a performance regime; it will be a tariff rather than case by case negotiation; it will be published and transparent and facilitate forward planning by all industry members; it would incentivise the best use of the capacity and reduce overall delay. Thank you.

ROBERT GOUNDRY, FREIGHTLINER: I would like to ask whether it is intended that this sort of arrangement should apply to freight and if so how it would be applied to freight's competitors, and secondly I would just like to challenge the underlying assumption. The fact that there is an observed relationship between introducing extra trains and punctuality does not mean that there is an inevitable relationship between extra trains and punctuality. A properly planned and a properly operated network can very often increase the number of trains it runs and improve punctuality and performance. The fact that the operation is not being conducted properly should not be allowed to influence the charges in this way.

MR PLUMMER: I will deal with both those questions. Firstly the question of whether it would apply to freight, we have yet to make a policy decision on that, but we will be doing so. We will be required to take a view on a range of freight charging issues in conjunction with the periodic review, although strictly outside it, but that will be one of them.

On the other point I think as a question is there any dispute that running an extra train would be expected to add to Railtrack's need to compensate other operators for extra compensation under the performance regime? I accept that we would want to be seeing performance improved at the same time as we would be putting in these extra structural charges if there is any change, but is there any reason to believe that running an extra train would not be expected to increase the need for Railtrack to compensate other operators?

MR GOUNDRY: You would only have to look back historically. There are many cases where service frequency has been increased and punctuality has improved because management has been sharpened up to deal with that. I think the Industry is in danger of accepting a considerable falsity if it accepts that every time the number of trains increases, punctuality will deteriorate. That is palpably not the case. It may be in the slack organisation of the current operation of some busy areas, but it is not an inevitable consequence, and if it is a consequence in certain cases, certainly the linear consequence, I think there is a great danger we are simply relying on saying if there are more trains therefore there will be more unpunctuality; it is simply not necessarily the case.

MR PLUMMER: Are you making the point, that there are two separate things happening at the same time, i.e. improving performance and at the same time having the extra trains so the net effect is zero, or are you making a different point?
MR GOUNDRY: I am making a completely different point that introducing extra trains on a line does not automatically mean that punctuality will deteriorate.

MR PLUMMER: Why is that?

MR GOUNDRY: It is not an automatic fixed relationship.

MR PLUMMER OK. We will have some further discussion on this point because I think it is an important point, if anyone else wants to comment on that point?

STUART PALMER, CONNEX: I must disagree with Bob. If you take all things being equal I accept the point that Bob makes that if you take other action you can introduce additional services, but if you assume in terms of the regime that all other things remain equal I think it is an inalienable law of railways that the more trains you run, any incident will generate more reactionary delay. You have only got to look at the performance of networks like SNCF where the train density is extremely low to realise that that is true when you compare it with the kind of railways we operate, so I think you have to make the assumption that everything else is equal but I would not personally argue that that is not true. Whether these proposals are right and proper is another question altogether but in terms of the assumption that underlies it then I think we have to accept the point that Railtrack are making in broad terms is correct.

MR PLUMMER: Does anybody else want to deal with that same point or a different point?

WILLIAM SUNNICKS, EWS: It is on a slightly different point. I would like to thank Stephen Gibson for answering some of the concerns I have got but I think as train operators we all, not just the freight companies - we have heard lots from the freight companies because it hits our bottom line directly - we ought to be very very concerned and suspicious about the potential complexity of these charges. I think I agree there is a lot of economic strength laying behind this, but when you get 26,000 different units you get a lot of complexity and when you get a lot of complexity you get room for commercial negotiation and the underlying concern behind all this is that this is the sort of thing that gives Railtrack the potential to extract rent from the train operators, whether the passenger operators or the freight operators, and appropriate the profit that we should making for their own benefit. That is the real concern of the complexity. Stephen did answer many of the points and goes someway to putting that to rest, but whether we can all make that work in practice is another issue.

The second point I have for him is that I would like to know how it is that those charges, those expected charges, will be recovered through a single till and the fear is that we will all just find that we have got an extra charge to pay over and on top and it is almost impossible before the regulatory review to forecast how much congestion charging will have to be.

MR PLUMMER: Before we deal with those more general points are there any more people who want to comment on the first issue about whether there is any impact of running an extra train on Railtrack costs?

ADRIAN CALTIERI, GNER: Just to muddy the waters a little further. The experience we have on East Coast Mainline is that with punctuality a minute's delay is actually less in the peak than it is in the off-peak. We actually do get higher performance in the morning and evening peaks than we do in the off-peak periods over the day and so much for Bob's comment, it is probably due to

management attention on both sides because both parties are knowing there is an increased level of train service happening then and of course an impact does quickly snowball.

JULIAN DREWRY, WAGN: The relationship is not necessarily linear because one of the effects additional trains can have if you are a commuter service is to reduce your station dwelltime on your heavily crowded trains. If I run an extra service down a twintrack railway I can probably reduce the average dwell time on my existing heavily crowded services and thus improve the overall level of punctuality on that route, so there is not a direct linear relationship under real circumstances.

The other thing I did not see just now, but I may have been asleep or missed it, was the relationship between types of traction, and you can introduce a form of traction which is inherently much more reliable than the one that may be used for the core assumptions in the tariff.

JOHN SMITH, RAILTRACK: Just to respond to Julian, I do not think that Railtrack was suggesting it was a linear function. The first slide of Stephen Gibson's presentation shows that it was an exponential function so that when we have the uncongested routes having an extra train does relatively little, but it is where we are getting into densely used parts of the network it becomes very much more steep and that sort of relationship one observes has been indicated on other sorts of network like road networks and on air traffic approaching airports, so it is an exponential relationship between traffic and expected delay.

MIKE PRICE, SCOTRAIL : Most of us have been faced with Railtrack's congestion charges in the past, I do not think I have met an operator yet that is convinced that Railtrack can calculate what they are; they have been satisfied by the bill they have got. The important point is that unlike most people apparently in this room I run trains for passengers and I am not so sure my passengers are prepared to take the trade-off between quantity versus quality. The passengers want the train to run on time and we have to be very very careful that any congestion charge built into it does not build into it an incentive to an acceptance, shall we say, that the trains run at a lower performance than they currently do. That seems to me to be the route we are going and it is not acceptable.

MICHAEL SCHABAS, GB RAILWAYS: Just as an observation, congestion pricing makes sense in industries where consumers can move the time round if they consume something, leave the car at home and make the trip in the off-peak. I do not think any train operator, certainly not passenger operators, and probably also not freight operators, are planning to leave their trains idle during the morning and evening peaks and only run them around in the middle of the day and in the middle of the night when the tracks are cheaper. So I do not think it will have any sensible effect on train operators. Maybe it will have an effect on Railtrack, it will find a way to add more capacity in the peaks, six train lines into Liverpool Street or something like that.

Getting specifically to the question about the tariffs, clearly 26,000 tariffs is not a simple system, but even that may not be complicated enough. I have not heard any mention of the effect of the stopping pattern that WAGN have alluded to. That must be pretty important. There must be another dozen factors that Railtrack could say in an access application as to why those 26,000 tariffs would not be applicable. I am wondering once these are published, and I presume the intention is that Railtrack

would publish these tariffs, that they become binding on Railtrack and if I come and say, "Right I would like ten more paths into Liverpool Street in the peak hour at the rate you have quoted, I will have them", does this mean that Railtrack is then contractually bound or bound by the Regulator to actually deliver them? I think what they could say is, "Oh sorry, we made a mistake there", whenever somebody wants more, something that Railtrack has dealt with below marginal cost; on the other hand obviously it will be delighted to sell them whenever it is above marginal cost.

MR PLUMMER: I think what we are talking about here is the possibility of putting into tariffs what is already recovered in a different way and if it were not the case therefore that these tariffs meant something then why bother?

GRAHAME COOPER, RAILTRACK: It is really a question of what people think might be the alternative to a capacity reservation fee. If you believe the principle of what we currently do to be right, in other words, negotiation of capacity or congestion costs, then a tariff is surely a simpler way to that end. If you believe the principle of congestion effects to be wrong or to create the wrong incentives then my only question to that line of thinking is well what is the alternative? Elsewhere in other industries the alternative is either imposed whether by the SSRA or by the regulatory authorities to arbitrary rules for the rationing of capacity, and that is what we are talking about here, the rationing and allocation of scarce capacity. You can either choose to do it through certain economic signals or by some other possibly far more arbitrary mechanism.

MR GIBSON: There have been a few points raised. Firstly on complexity, well I recognise for freight that 26,000 tariffs across the whole network may be quite a complex area and as Paul has said we may not want to have the full level of complexity within freight charges; we may want a more simplified schedule although it is certainly true that Railtrack will face those costs whatever the charging regime. But for an individual train operator you will have to remember they are not going right across the whole network, they are going across a particular area of that network. For example we showed Midland Mainline having a couple of dozen charges which are then multiplied by six different multipliers to give you what I would suggest is a very manageable level of tariffs and certainly not too complex for reasonably important decisions about running trains.

On the issue of stopping patterns I agree different stopping patterns do change the congestion costs, but not significantly within the current mix of trains as I suggested. Therefore unless you are suggesting a new train which has a very different stopping pattern from the ones you currently run that will be under the tariff and the tariff would be binding on Railtrack for rights on the existing network. We are not talking about, "You want to run another 20 trains into Charing Cross in the peak", when there simply is not the capacity for it, then you are talking about capacity upgrades and negotiation of enhancement. But where there is demonstrable capacity on the network that will be a tariff at which we would publish in advance, which would offer certainty as to the price of trains.
The point about trains running on time and passengers not wanting an assurance their trains are not running late, that is a performance regime issue, not a congestion matter. The performance regime is there to improve reliability of the train services. This is all about the impact of your train on other train services and it may well be the case that you have greater reliability in the peak than the off-peak and that may be as a result of greater management action. I cannot say for the East Coast Mainline,

but none the less it is the case if you put on another train in the peak that will have a greater effect than if you put on the train in the off-peak. I hope that has responded to a number of these questions which have been raised.

MR PRICE: It is about over-selling of capacity at the end of the day, it is about how far up that curve are we prepared to go? The danger of introducing a fee is that we are not arguing about how much capacity we want to sell; there is bound to be the cost of transition if you bring in the trains, that the charge should be transitional for a start, we should see factors reducing the congestion charges as time progressed and we must have a debate about how far up the curve we are prepared to go. At the moment we have in several areas of the country gone too far up that curve because capacity has been over-sold on the network and I am not convinced we have put in the mechanism that is going to prevent that happening in the future.

MR GIBSON: I agree absolutely that we need to decide how far up the curve we should go We should make a proper trade off between growth on the network and our valuation of growth and reliability on the network, a valuation of how reliable a network we want. We believe that our proposition for a volume incentive combined with a proposition for a capacity reservation fee would allow a proper trade off to be made rather than the current mechanisms which are very much as Graham Cooper suggested earlier a rule based mechanism which does not allow for any trade -off between the values that you are suggesting. So I agree totally that that trade off needs to be made and I think it should be made on the values that are there for increased growth of the train miles and the passenger miles on the network, compared with the value associated with increased performance and the capacity reservation fee to get the volume incentive would allow that trade off to be sensibly made.

STUART CONNELLY, DETR: Just on the question of philosophy, do we all accept that it is a necessary consequence of introducing a recognition of congestion costs where there was not a recognition before, or not proper recognition before, that may lead to more efficient use of the network, but the expectation must certainly be to lead to less use of the network.

MR PLUMMER: I am sorry did you say that it would not lead to less use of the network?

MR CONNELLY: No, it will lead to less use of the network.

MR PLUMMER: That depends a great deal on the precise way in which it is implemented and also the precise way in which the changes are passed through to train operators and onto the SSRA. I think that is a discussion for later on this afternoon, but clearly we need to understand the effects of introducing such a charge would have before doing so, but essentially all we are talking about here, is putting in place a tariff where at the moment there is a series of negotiated charges, so I do not see a very fundamental difference in that regard.

MR O'DONNELL: This may be a question of implementation best dealt with this afternoon, but I am just trying to understand the ramifications of the flex provision. Is this going to require a substantial rewrite of Schedule 5 of the Track Access Agreements? I am not sure whether the

agreement is currently specified in detail by path and flex allowed, so presumably all of that will have to be worked out? It is just a question of what is involved?

MR GIBSON: There are certainly a variety of Schedule 5s, some of which have a very explicit with an easily applicable flex element and some have a less easy to derive flex element. I do not think it will require an overall rewriting of Schedule 5 at all. There will be some Schedule 5s where we will need to make some assumptions, and have some mapping from the existing way the rights are set to, what was the equivalent level of flex will be. I am sure also that the model clause proposals that we are currently undergoing will allow an opportunity for new charges to be set on a basis which would make the calculation of capacity reservation fee much more methodological and mechanistic.

STUART HOLDER, NERA: I have two questions of clarification really about how this proposed scheme will be implemented. This may reflect my misunderstanding of what has been proposed, but the first is looking at the presentations that the fee will be applied where path changes are bid into the timetable. My question is if the path changes for example because it increases the degree of flex actually results in a decrease in Railtrack's expected performance penalties, will there be a capacity reservation rebate? So if the change is favourable to Railtrack comparing the existing right.

MR GIBSON: Absolutely.

MR HOLDER: All right, thank you, that is good news. The second question is about what costs are actually being included in the capacity reservation fee and if we think about introducing a new service on to a congested part of the network then you can really classify two types of congestion cost. There are the costs associated with that particular train because it breaks down and Railtrack has to pay compensation to all the other operators who are queued up behind the broken down train; the second type of cost results from the fact that there are simply more trains using the network and if the new train runs on time every single day Railtrack's expected performance payments will still increase and I am merely asking is that second category included in the capacity reservation fee because I do not think they should be. I think it would be inefficient and unfair to include them, but firstly it is a question of clarification.

MR GIBSON: What was the second point?

MR HOLDER: It seems to me that the new train is being unduly penalised because it is last on the network, that the efficient way of charging these costs would be to spread them across all train operators, and if you are trying to apply economic tools to providing a proper allocation of capacity then that is the way you should do it and to penalise trains which are simply the last ones to come along I think means pricing the trains off the network, because they bear more than the actual costs of congestion costs they impose, if you could impose similar charges on other trains.

MR GIBSON: Are you suggesting therefore that no train operator should ever know the prices that are going to be applicable to their rights until the final timetable is calculated because they will not know until then what the level of traffic and therefore what the level of congestion would be?

MR HOLDER: I think it is a separate question what the approach would be, but I believe the proposal is unfair in that it lumps all of those costs on the last one and I think it can discourage use of the network.

MR GIBSON: I think it reflects the additional costs that Railtrack faces as a result of that additional train running. Now the alternative which you are suggesting is that you then spread those charges between all the operators. The problem we foresee with that, is that when you buy an access right for five years but you will not know what the price is in each year until you actually see the timetable three months before the train actually has to go live. Our proposals would allow you to know the prices of those rights when you are actually buying the rights rather than a long way in the future.

MR HOLDER: I think it is a separate question as to whether you actually do try to implement the economically efficient approach and probably my answer is no, it is too complex, but I think the issue is what are we trying to do? Are we trying to compensate Railtrack for its costs or are we trying to give efficient price signals to train operators? I think they demand different approaches and I think the current proposal is based on trying to compensate Railtrack for its costs rather than give efficient signals to train operators.

MR PLUMMER: Moving on from that point it would be interesting to hear from the floor the extent to which train operators think they could react to the efficient price signals.

TONY CRABTREE, WALES & WEST: There is no doubt that operators could react to efficient pricing of congestion charging, capacity reservation fee, or whatever, but at what cost is that reaction? We already have a very tight timescale for formulating a train plan, bidding it, getting all the paths on the graph and ultimately getting the trains in terms of passenger trains in the Great Britain timetable. Within that they have to ensure that they are resource efficient, they have to be PSR compliant. If we are now going to have to overlay the congestion charging as well, then there is the potential for late changes when unexpected side effects appear at the end of the process. Alternatively, if we are not going to have late reaction to adverse effects we find, then we are going to have large swings in costs for train operators. It is going to put an extra burden on the train planning process which is going to have to be dealt with somehow, either extra costs or low changes or some other effect, unless Railtrack has got an incredibly efficient process available to all operators whereby the cost of a particular train plan pops out at the press of a button from day one.

MICHAEL SCHABAS: I think we do respond to price signals and I think we have done so successfully. I think we have negotiated successfully with Railtrack to increase our capacity into Liverpool Street and we continue to do so and I think much of that is due to a very good relationship between the paths and the Railtrack zone managers, the route managers who know the line, they know the timetable very well. We are trying to do the same on the route to Hull now as well, which is promising; I do not know whether that means we are paying too much or too little, and I think it is a win-win when we both think we have done a good deal. My point which Paul Plummer summed up is why switch if what you end up with is 26,000 charges which ignore half the issues anyhow, why not carry on with the negotiated system agreed using models? Sometimes we have even used Booz

Allen to do modelling to try to find out what the costs are and I think a lot of it comes down to guesswork, but at least it is explicit guesswork rather than thinking 26,000 guesses and then trying to stick with them.

GRAHAM SMITH, EWS: In some cases it would be possible to avoid a congestion charge by re-routing a service, but in that case what approach would Railtrack take if they were unwilling to re-route that service, or did not have alternative capacity for it? I am thinking in particular about going round London rather than through it, or on routes through Birmingham which are low use routes rather than busy routes. My second question is one of the causes of congestion, and here we can look for example to experience of Eurotunnel. Congestion is caused when a route is closed for maintenance and renewal. Given Railtrack's intention to extend its possession time as Richard referred to earlier on, is there an intent for some kind of reverse capacity fee where operators are inconvenienced by that approach?

The first one is specific freighters use, is it not? I do not think other people want to by-pass London and the second one is a matter for the possessions regime in Schedule 4 I think is it not?

PHIL WHITE, VIRGIN TRAINS: How much you can move it to a less congested time I think I would ask would anyone want to come to this seminar had it started at 2 in the afternoon and finished at 7 or 9 at night. That is the nature of our business, that people want to come into London at 9 or l0 in the morning or other places. On the cross-country side I think Stephen has forgotten that we equally go across the country and would be well into his 26,000 cells in trying to quote us a price and because of long distance trains they sometimes hit centres such as Leeds at times when it would be quite expensive, so therefore it would be very limited how we could move away from that time; we hit certain congested sections, especially if we go into more regular pattern services which we are attempting to.

MR MIDDLETON: Thanks for raising the Cross Country issue because it is a good example where I believe what we are proposing to do - and remember it is only a proposal, it is thoughts for debate - would actually simplify things. Trying to calculate the congestion charges for the Virgin Cross-Country timetable in 2002 is actually very difficult. The number we have come up with is a whole magnitude of difference from the number which you think it ought to be. Now we will end up horsetrading that number between us for several months while we are trying to get a track access agreement through the regulatory process without clearly understanding what the costs are. If we had a capacity reservation fee you would know what those costs are because we could calculate them now and we would have it on a tariff basis, it would be open and transparent and visible to all and would simplify the process.
In response to Tony Crabtree's point as well, we currently have to negotiate every congestion charge separately because that is what the regime calls for. Michael made a very positive argument that it was a good thing to do and where you have a mature relationship it can work very well. But you do not have mature relationships yet, and the messages we were getting back from the industry was that you wanted visible tariffs and that is why this proposition is being put forward. We would consider negotiating congestion charges, we can have them coming out of whatever black box system we want to develop, but it is not going to make the thing more visible. 26,000 cells is across the network and

it is not difficult in days of modern spreadsheets to calculate the congestion charges on a particular route by plugging into those cells, so again it is a proposition, it is a proposal.

We have the current system of congestion charges which is not liked, we have got an open visible transparent system that we have proposed. Again I appreciate the point, but let us hear other propositions as to how we can handle these difficult issues in order that we can achieve the objective of getting us all moving in the same direction on the network.

MIKE PRICE: I think Richard has just explained why I do not like the capacity reservation fee. The great advantage of the current system is that we do model on a route by route basis when a new service is put in. What is wrong with the current system is that it never involves the third party operator that is going to be affected. It assumes, as does the capacity reservation fee, that the third operator is ambivalent as to whether they get good performance and whether they get performance payments. I want to know in detail what impact the performance of Cross-Country trains will have on Scotrail services when it enters Scotrail. I am not interested in the general costs. I want to know what happens when they come into Edinburgh, when they leave Edinburgh and what the effects will be on Scotrail services. By modelling in detail each time there is an opportunity to discuss that and look at it in the round.

SIMON COPPEN, BURGESS SALMON FOR FIRSTGROUP: I second some of Phillip O'Donnell's concerns regarding the application of the proposed processes to Schedule 5 flex and really whether the opportunity for train operators to earn discounts through introducing flex is real given the way a number of Schedule 5s are constructed, and the different mechanisms of flex which are introduced, and the requirement of passengers to see some kind of clockface certainty across their services. I would also like to ask a question of clarification really regarding what may be the future recalibration of Schedule 8. We understand that the congestion costs are to help Railtrack in facing costs which arise through the performance regimes. Presumably on a recalibration - and I am thinking particularly of the train operators side of the performance regime - that would be reset having regard to recent more robust data looking at a network with current levels of traffic. So that will take into account a good level of Railtrack's current congestion costs. What would the relationship be between a future Schedule 8 and charges made by reference to on the day performance and this tariff base charge?

MR PLUMMER: A great deal of work is being done at the moment on the recalibration and the approach will be set out in more detail in the Spring document on the incentive framework. That is not a matter to go into more detail here, we want to talk primarily about the structure of charges, but clearly there is an interaction between Schedule 8 and the capacity reservation fee which we will need to be setting out in the document as well.

I think that brings to close this morning's discussions. If we break now for lunch.

(Adjourned for lunch)

MR PLUMMER: Ladies and gentlemen, could you take your seats please and we will start. (**Pause**) This next session is about volume incentive. Before I start talking about that, I would just like to emphasise a point of principle. I do not think there should be much disagreement. This is, that the alignment of incentives is absolutely crucial to the creation of an acceptable volume incentive. Without that, the system of regulation is unlikely to deliver the objectives that Tom Winsor outlined at the beginning of this morning. What we have to consider however is whether this requires some sort of volume incentive taking over the structure charges and, if so, how it would work in practice. There is no decision on the first issue and we will be putting our views on this very clearly in the Spring document.

But, on the second issue, I think everybody has quite different views about what is meant by volume incentive and this has led to some confusion in the debate. What I am going to do, therefore, is set out a view as to how it would work in practice, could work in practice, if it were to be introduced.

On the first issue, what we do need and what I hope we will get by way of discussion this afternoon, is the views of all parties concerned as to whether this would be a good thing. I will come more onto what would be meant by that in a minute, but we do need the views of the industry as a whole. There were very varied responses to the October, 1999 consultation document, and particularly in relation to the volume incentive. There were a number of concerns expressed which will be covered in the following presentations and a fundamental question raised by a lot of parties, namely, what would it incentivise?

There was particular concern that Railtrack would gain from this and in some sense that would be wrong. I think it is clear that if a volume incentive were to be introduced, it should not be a one-way bet for Railtrack to ride on the growth but to incentivise in a way that would help the industry as a whole. To be worthwhile, it would clearly need to incentivise greater customer focus on the part of Railtrack; more efficient utilisation of the existing network and a more proactive approach to the development of the network. We need views of the operators on this. Would it have the claimed effect on Railtrack's incentives or would it have some other effect?

The other very important point about what we mean by volume incentive is that, certainly in my mind, it has never been about funding significant enhancements. It may be that it would incentivise Railtrack to deliver those enhancements or negotiate those enhancements; to be saying "I want a more customer and funder-focussed enhancement but I have not seen it as funding those enhancements."

A few other points about the mechanics of the way in which volume incentive might work if it were to be introduced. The first point I think is that it would be an annual adjustment to the fixed charge in the base contract only, so not including supplementals because that would clearly result in the risk of double counting - the volume would be counted twice in the base and in supplementals.

A second point, clearly it would be additive rather than multiplicative so you would not have Railtrack's revenues under this component continually over a period of years. Instead, there would be an adjustment to revenues in each year based on the growth in the relevant measure of volume in the preceding year.

I think one advantage of that is that it avoids the potential cliff edge at the periodic review if you have had several years of non-growth and then you come to rebase this volume term at the periodic review, or you have to take decisions about how the RAB is adjusted and so on. I think that would be undesirable.

There are some more issues to be considered. First of all, should it be a measure of real volume, that is, for example, volume growth in passengers minus the growth in GDP? One of the concerns expressed has been that Railtrack would benefit from growth in GDP which is one of the drivers of volume and this is inappropriate. That effect could be removed at an aggregate level by adjusting for growth in GDP.

What measure of volume should be used? In the October document we put forward a number of possible options. In the farebox, passenger numbers and a measure of train miles. I think the passenger numbers measure is the most difficult to monitor and enforce in practice so perhaps the other two, or a combination of the other two, may be the most realistic approach if this is to be introduced.

Other questions relate to whether it is introduced at TOC level or national level and whether volume is weighted according to the different types of services, different parts of the country and so on. So, there are a number of important questions which will be touched on, I am sure, in Railtrack's presentation and will come up in the discussion afterwards but I stress, if this were introduced, it should incentivise better behaviour. If that is not the case, the case for introducing it would be correspondingly weakened. Over to Gerald Corbett who is going to speak about this.

MR G. CORBETT, RAILTRACK: I am not actually going to speak about the detail of this, John Smith is going to follow me very shortly, but John did suggest I said a few brief words. One of the advantages of having a lawyer as Regulator is one can have these meetings in these august surroundings. The last time I was at the Law Society was at a college dinner 25 years ago when the speech was given by a former Chairman of BP, Sir Eric Drake, and he said he much preferred going to college dinners rather than with the Shah of Iran because at the college dinners you could throw your bun at the person opposite, and I suspect that is what these discussions will develop into!

I gather from Tom this morning he and I are totally at one in this issue in terms of philosophy. All my experience says people and organisations, whether you are talking about the classroom, whether you are talking about the playing field, whether you are talking about the Office of the Rail Regulator, governments or commercial organisations, they do perform better with incentives, with carrots, rather than sticks. I cannot imagine a highly performing company, if all it has is a contractual matrix and a series of enforcement actions and it has to deliver by the book. It is totally alien to everything I have ever been used to in my life.

Before John starts, three points: One is that without incentives and without this volume incentive which I think is crucial, we will lose good people and not be able to recruit good people. That is a fact. Good people do not want to work for organisations which are just delivering specific

performance content on individual, legally-bound contracts. They want to work for organisations where they can be creative, dynamic, come up with ideas, achieve and see the result coming in at the bottom line. That is a question of fact.

The second thing, we have a Network Management Statement coming out at the end of the month. What is becoming very clear is there is a mega funding issue coming out and that funding is going to have to come from Railtrack shareholders and definitely from the financial markets. Without incentives and without the prospects of that earnings line growing, we are not going to be able to play our part in the world of the rail renaissance. That again is a fact.

We all tend to approach these questions from a parochial perspective. What does it mean for our little bit? What are the percentages for our bit? But, we have to take the bigger perspective and think of the people who want to work for Railtrack. What organisation do you want it to be and if a non-incentive structure, is it going to facilitate the raising of the money?

Thirdly, is the terrible adversity we have at the moment in the industry. The origins of that adversity are the current contractual matrix, the way the industry was privatised. All the factors of the industry were designed for privatisation; to get the units sold and reduce the public subsidy. Everybody has different incentives, pointing in different directions, trying to do different things. That is the fundamental cause of the adversity and we all know deep in our hearts it is inefficient and not right and we have a real opportunity, with the regulatory review and the franchise extension, to correct that and to decide what the government wants to deliver and it is safety, growth and investment and everybody's economics towards achieving that.

So, instead of working against one another, which if we are honest, we do, we can work with each other, sharing reward and sharing risk. That is the Railtrack vision for the new millennium and we have to do that to achieve the railway that the Government, the country and the Regulator wants. That is the philosophy. Now, John Smith with the detail.

MR J. SMITH: I would like to follow on from Gerald's remarks and also what Paul Plummer has said, but perhaps I can start with a perspective of this morning's discussion. The reason we are here today discussing changes in the way we charge for use of the network for incentives, aligning incentives, is because we are operating in a growth environment. If this was a static railway, then these things would matter much less, but looking ahead, we are talking about growth on the passenger side of perhaps 40-50% over the next ten years and the way we have done things in the past and the frameworks and the charging mechanisms we have got will not, in our view, enable us to accommodate those sorts of changes and increased use of the network.

It is really against that sort of background of growth that I want to talk this afternoon. As with a number of things we have discussed, it is important to compare them with the way we go about them now and the substance of what happens For negotiation of additional rights on the network, the current practice is that charges are set by negotiation between Railtrack and the train operators with a share of the benefit between the cost floor and value ceiling being reflected in the charges.

That means relatively high transactions costs which can constrain small deals. It can mean parties going into that negotiation are unsure about the outcome so there is a lack of predictability and parties are disincentivised from sharing cost and value information. So, the atmosphere of negotiation can create disputes and mistrust. We are proposing to replace that negotiation with a tariff for rights on the existing network, recognising that most enhancements will still need bespoke negotiations.

So, the aims of our volume incentive are really to incentivise Railtrack to deliver additional outputs that customers and funders want and value. To align, as Gerald has indicated, Railtrack's incentives with those of our customers and funders by giving us both a stake in the growth which we all expect to take place over the next five to ten years. Another way of looking at it is that we want to complement performance incentives in Schedule 8 (where Railtrack is incentivised to deliver reliability that passengers and funders value) with equivalent incentives on the group side and that, in turn, will allow proper trade-offs to be made between growth and performance on the network. Finally, it is to encourage Railtrack to look for retimetabling and other opportunities to gain greater value out of the existing network.

I agree with Paul, it is not primarily about funding enhancements to the network. There may be some enhancements which will take place as a result of it, but it is looking at more innovative ways we can get greater value out of the existing system. Paul raised the question as to the metrics for the volume incentive, whether it should be a mark-up on variable charges or pence per vehicle, per train mile.

Our view is that these do not get delivery of what customers and funders want which is more passengers travelling on the system; more freight travelling on the system. A revenue share clearly aligns Railtrack with commercial interests of operators. A pence per passenger mile aligns Railtrack with social interests of funders. So, there are some options here. If we want to get more passengers, to relieve congestion, for environmental reasons, then having a pence per passenger mile might be the right way of aligning incentives. As with the performance regime, back in 1995, setting up something like this is, to some extent an act of faith, *ex ante* we cannot easily predict what is going to change, what behaviours will change and how Railtrack will be acting as a different company in three or four years hence.

But, with experience of such a system, *ex post* we ought to be able to identify management actions taken across the network to facilitate growth, giving an opportunity to recalibrate incentives in the light of experience, either across the network or in different parts of the network, where there is different growth potential. So, we see strong parallels with the performance regimes where incentivisation has led to a much more systematic approach to managing train delays and we would like to see that applied to managing the growth and maximising growth on the network.

Inevitably, with a number of parallel initiatives and concepts being talked about, it is sometimes difficult to see what the relationship is between them. We see a volume incentive leading primarily to more efficient use of the current network, incorporated in charging structure. It is network-wide but there may be differences in levels of incentives across the network depending on the potential for growth. There is also the SSRA proposal for incremental outputs and customer reasonable

requirements agreed with train operators, which typically lead to small scale enhancements, which can be included in the baseline for the periodic review or negotiated subsequently.

Then, on top of this, we have bespoke revenue share arrangements for large upgrades of the network which can lead to aligned incentives for these large scale enhancements and these are going to be negotiated on a case by case basis. So, we see these three sets of proposals as really complementary rather than competing.

Paul alluded to the fact that volume incentives had been presented in different ways and meant different things to different people and a number of concerns have been expressed, particularly in response to the ORR's consultation document. One is that Railtrack would benefit from exogenous growth, growth from GDP. I think the response to that is that we would only benefit to the extent that growth is faster than anticipated and we lose from slower than expected growth. We share downside risks with train operators.

Given that we operate in an economy with significant difference in growth in different parts of the country, we would argue we are better placed to carry GDP risk across the network than TOCs who may be subject to variations at the local level. We already take the exogenous risk in the Schedule 8 regime, acts of God, *et cetera.*

A second argument is that we would benefit from actions taken by train operators, but that can be turned around because equally train operators would benefit from the actions that we took to facilitate greater use of the network and the volume incentive needs to be set at levels which reflect a reasonable assessment of Railtrack's ability to influence demand and manage risks across the network. Similar issues have been raised on the question of benefit share components under Schedule 8 to jointly incentivise improved performance.

Would a volume incentive reduce the marginal incentive on train operators? It largely replaces an existing negotiated share of benefit for additional rights and would reduce transactions costs. To the extent it did reduce marginal incentives, any impact on TOC incentives could be neutralised through some sort of variable subsidy, if the SSRA wanted to do that.

A volume incentive might also lead to Railtrack discriminating between operators. But access conditions and regulatory approval would continue to ensure non-discrimination so we think that that is no worse than under the existing share of benefit performance regimes and we have some examples of existing revenue share arrangements such as on Virgin West Coast.

In summary, we see a volume incentive aligning both Railtrack and operators on a growth agenda. That is the biggest challenge we face as an industry over the next ten years. It would lead Railtrack to proactively seek ways of attracting customers through improved timetabling, scheduling and other methods of increasing network use. It would lead to more innovative approaches, it would allow for more efficient trade-off between traffic growth and performance. It should be set at a level that reflects Railtrack's ability to influence traffic growth and manage risk and it is something that can be recalibrated over time in the light of experience.

A key thing from our point of view is it will allow Railtrack to benefit from outperformance on growth in the same way we can benefit on outperformance on other elements of the regulatory regime, and share downside risk with train operators when growth turns down.

In short, a volume incentive leads to a better performing Railtrack alongside growing TOCs and we believe, more valuable franchises. So, I would like to leave it there, thank you.

MR PLUMMER: Who wants to ask the first question on this interesting subject?

MR R. GOUNDRY: Can you explain the relationship between the volume incentive and the congestion penalty?

MR PLUMMER: I assume you are talking about the capacity of reservation fee, is that right? (**Pause**)

MR J. SMITH: How do you want to take it?

MR PLUMMER: I think there are two separate questions and I think John's speech addressed how they are trying to approach two separate issues. One is entirely to do with Railtrack's costs and intended to be entirely cost reflective and whether there is an economic case for an incentive, which would be both up and down, for Railtrack to deliver various aspects of performance which cannot be targetted and incentivised in a direct way. I am not sure that has answered your question?

MR GOUNDRY: No, it has not.

MR PLUMMER: Would you like to elaborate on the question?

MR GOUNDRY: My concern is that on the one hand, Railtrack would be encouraging lots of people who have lots of extra trains and through whatever mechanism it is the congestion penalty will be charged for running the extra trains. It does not seem to be coherent.

MR PLUMMER: Right, I see what your concern is but I think it is a matter for the capacity reservation fee and to ensure that is designed including the question that the overall revenue that is recoverable from that is capped to avoid that sort of incentive.

MR CORBETT: At the moment, the whole problem is that they have no incentive to run extra trains. In fact, the last thing we want on the network is extra trains. Extra trains negatively affect performance. They run over the rails and deteriorate the track quality and they cause broken rails and the way our economics look is a complete nightmare. All the extra trains we have taken onto the network in the last four years, if we had been performing commercially and economically, we would not have taken them on, and that is not right. We are arguing for a set of economics that incentivises us to achieve a network in everybody's interests whereby we have more trains and have an incentive to do what you want and run more trains. We want a complete reversal of what you are suggesting.

MR G. HORTON: I wanted to try to link with the usage charge. If a usage charge is introduced, that would include a normal profit element on the costs of expansion and normal profits are what companies normally have to incentivise them to do things to have an incentive on the expansion of the network. If there is an incentive on top of the usage charge, then what is that doing? Is that reflecting some sort of extra social value? But then if it is going to Railtrack, is that producing super-normal profits? I am just wondering how these things link. These various incentives all do work together and I think it is true the congestion charges might, depending how they are treated, but the usage charge seems to be the strongest.

MR J. SMITH: Do you want me to answer that, Paul?

MR PLUMMER: Let's take another question first.

MR McTAVISH: The undercharging for marginal trains, for me is, I am bound to say, something that has always puzzled me not because I do not share Railtrack's desire to make sure Railtrack is properly incentivised and to avoid the disincentive effects that are already there. Everybody in this room would say that disincentivity is something that must be corrected. So, as a base point, we start from where we are earning normal profits on additional trains and there is no disincentive there, looking at the volume incentive. One must, therefore, look at what is it designed to do and I have approached it always from the point of view, looking at decisions that are being taken. I think that is the context in which it needs to be approached. We need to think how will this affect the decision on the ground when something is taken?

When we had some of the earlier discussions in the autumn it was being put forward - and I see the argument has changed slightly -, that the incentive effect would assist enhancement expenditure. I did not understand the argument and, in effect, I think we must be very clear on that one. In terms of TOCs wishing to share revenue, to share risk - and someone made the point about Railtrack's position in being able to share this - I think sharing risk is an entirely different issue. I think a number of train companies will wish to share revenue with Railtrack on specific areas because it makes sense for them in that particular environment. We would wholly support the idea of agreements taking place at a local level to share risk but I am still puzzled by the fundamental question which is how will it affect behaviour on the ground?

MR PLUMMER: I agree absolutely. The key question is what will be its affect in the way of behaviour and this is something we want to encourage. Do people want to comment further on that question?

LORD BERKELEY: Can I first of all express a certain amount of surprise. We freight people seem to be talking rather a lot. I am sorry about that, but I am very surprised there are not more passenger TOCs expressing opinions on these issues. If I were a passenger TOC, I would think there are some serious issues that would have an effect on future business. However, thanks for organising a seminar for us! Can you just explain something: incentives for additional rights to the existing network over and above what was arranged or existed originally, are we talking about something which would give

Railtrack an incentive above the marginal cost which they say is not sufficient to attract this additional benefit? I do not think it applies to freight but it helps us to understand how it affects the rail network. Am I right on that one?

MR J. SMITH: It is really an incentive for outperformance on growth assumptions and there would be a baseline level that would be reflected, for example, in single till calculations to the extent that if growth achieved were higher than expected growth, we would share some of the benefits of that growth with you. When Alec says, "I don't understand how it would work", presumably people could have said much the same thing when the current performance regimes were being determined back in 1994-5. It is giving incentives for outperformance and if we get better than expected growth on parts of the network through activities that we are undertaking, then we are incentivised because we share in that growth, we are looking at better ways in which we can get more out of the network, in which we can make better timetabling decisions but also some small scale enhancements, things which will improve the capability of that network to take more traffic so I think that is the gist of it. It is encouraging things which would not otherwise take place.

In relation to Geoff Horton's comments I think that also answers it. That usage charges are about covering the variable costs from extra traffic on the network. A volume incentive is seeking alignment between Railtrack and train operators and allowing Railtrack to benefit from greater than expected growth on parts of the network and clearly the mechanics by which we introduce that will depend on the assessments of growth on different parts of the network, how we set the baseline and there is a lot of work on detailed implementation clearly, but the key issue is outperformance.

MR CORBETT: I think we have come at this from the point that the usage charge would reflect the costs and the volume incentive is a different thing, but you could approach them from a different point of view and looking at Paul, I know he is an economist…

MR PLUMMER: We come back to a fundamental question which Mr. McTavish raised. What would Railtrack do in response to incentives of this sort and look at it from the other perspective, the operators' perspective. What is it you want them to do that they are not doing at the moment, that this might facilitate? Is there something you want Railtrack to do? Clearly, we will be doing a lot by way of tightening up licensing conditions to help in that regard, but would a volume incentive assist in encouraging Railtrack to do some of the things that you want?

MR CRABTREE: One of the things that we would like to see is Railtrack clearing some of the pinch points round the network to improve the timetable it can offer and improve the delivery of that timetable. If a volume incentive comes in from around the network, a large pool of money will accumulate in Railtrack's coffers. How will that be targetted at certain improvements? Each particular improvement has got to make a balance sheet that makes it worthwhile before Railtrack will deliver it. The method of creating that balance sheet will not be changed by a volume incentive and each marginal improvement will probably turn out to be not economic. So, the volume incentive will continue to grow in Railtrack's bank account without any of the pinch points being cleared, because it is uneconomic to clear them. How are you going to find a way to make Railtrack do uneconomic things by clearing pinch points?

MR PLUMMER: I think that is a separate question in that the volume incentive is not about funding these investments. That will have to be funded by Railtrack's customers. It is about incentivising them, to negotiate them and to deliver them rather than to eliminate the pinch points themselves.

MR J. SMITH: It would help with a lot of the small schemes. It would make Railtrack managers on the ground consider the things they could do more proactively to facilitate rail traffic on the network and that I would think, would be in train operators' interests.

MR PLUMMER: What are these things? What are you going to do?

MR MIDDLETON: Well, in the end, I thought Paul asked the most pertinent question of the day: Let's hear from the train operators what it is they would like Railtrack to do to allow this growth to be delivered. If we have a volume incentive, if people downstream would get on and carry out minor refurbishments at stations, carry out track works to increase capacity, sort out a couple of signals to increase capacity, things people can do on their own budget on the basis that it is increasing the growth on the network, these things are going to happen, but I would like to hear some train operating companies answer Paul's question. What do you want from Railtrack in return for a volume incentive?

MR PRICE, SCOTRAIL: I am afraid I am back on my old theme again. More trains is not necessarily a good thing if there is no room on the network for them, but I have traded on that this morning. I will come away from that. Having said that, if we decide it is right and there is room for more trains, I think it is absolutely right Railtrack should make a profit from running them. Every contract I do, whether it be for pencils or paper or anything else, I look to the contractor to make a profit. Without that it is a disaster. I think it is right that Railtrack's profits should be linked into the things that affect my business, the number of people that travel on the train and the income. The only question is whether it should be built into a formalised system of fixed charges. I am not convinced about the transactions costs. Railtrack keep talking about high transactions costs. It costs about £0.5m a day to run the smallest train on the network and the transactions costs compared to that are very small indeed. Therefore, while I agree with the general flavour of what is said, I am not sure I agree it should be fixed into a fixed rate of charges.

MR CRABTREE: Again trying to answer Paul's question and Richard's question, what the train operator wants, I thought we had made that fairly clear, but I will reiterate what I think the situation to be. I want the capacity and the capability on the network so it can deliver more trains for operators who want to expand when it is economic and the capability for operators that do not want to expand or do not need to expand, to run their trains with a suitable quality of timetable. To do that, certain improvements need making and at the moment the only way I can see those improvements is through the SSRA's IOS process where they say, “I want A, B and C doing”, and we will negotiate the price up front, presumably through the fixed charge. I have seen no evidence that a volume incentive or any other incentive is going to cause those improvements to happen. Each improvement, whether it is the odd signal here or there, as has been mentioned, because it is a huge amount of money, you look at that money and in isolation it does not make sense, so it does not happen. Even the most glaring

number of pinch points do not make a case for improvements, so I do not see these incentives as tabled will do what we want, but I do see the SSRA's IOS process achieving that.

Is it appropriate to bring in the SSRA at this point or could we explain how the incentives, volume incentive and others will shift the pinch points? It never makes sense when you come down to get the figures right with Railtrack.

MR PLUMMER: I am sure SSRA would like to come in but before that, the incremental output statement, it is very important for delivering on the network, but it is not the end of the process, there is an on-going process for negotiating enhancements and coming to the Regulator for approval. The periodic review will set out much more clearly the way in which that would work in future. I think that is a very important part of the future. I do not think it is just about the incremental output. They are on the shopping list and can be included in the scope of the review but that does not stop further enhancements being negotiated further with the SSRA behind them, if necessary. Philip, do you want to respond?

MR P. O'DONNELL, SSRA: Just a couple of comments. To find some common ground here I think everyone in this room recognises the importance of getting the incentives right for the industry. There has been an adversarial climate, as Gerald said, for five years and we want to move away from that. The first thing we need to do, drawing on this morning is ensure Railtrack has recovered its incremental costs. If we do not have that right, we have the position where Railtrack has growing losses and that is not the right position for Railtrack to be put in, but this afternoon brings us on to a more difficult issue which is: Should Railtrack enjoy a margin above its costs, that is cost of capital? There are arguments why that might apply if we move away from the fixed analysis to the dynamic analysis so there is some point here but there are two or three issues which I think are quite critical for the industry.

First of all, to use today's favourite word, “alignment”, after Gerald and John finished I did not notice clapping and stamping of feet. Maybe the train operators have not got their minds round this or have deeper concerns, but to us the issue of alignment is very important. Secondly, going back to John's note, there is a suggestion here that the SSRA will in effect bank-roll this form of volume incentive. We will have to think quite long and hard about that but one of the issues is if we are in the business of buying additional outputs, what we want to buy is additional passenger and SSRA freight outputs, but Railtrack is down the value chain. Railtrack is a supplier to train operators and we would want to know whether an incentive directed at Railtrack is the most efficient way of buying additional passenger miles or tone miles as opposed to putting more money into the RPP or some of the freight grants so there are significant things there, some balances to be struck here.

We also need to step back and it is a point Alec McTavish made before lunch.

We are building up a cocktail, if you like, of incentives here. How are they all going to relate to one another and how will the incentives on Railtrack relate to those on passenger train operators, in particular through the franchising regime. I do not have an easy and immediately available answer to these questions, they are quite complex, but if I may put the question back to the train operators, I

think we have had a clear description from Railtrack as to the form of volume incentive envisaged here which is to use the existing network more incentively, more effectively, rather than one focussing on enhancement investment. I do not get a clear response from the train operators to that model and it would be useful to have that while we are in the forum. Are they agnostic about it, don't understand it, against it or for it? But, it would be very helpful to know where train operators stand on the model presented today which has moved on from the one which Railtrack was talking about, say last October.

MR PLUMMER: Which operators would like to respond to that, or representatives of train operators?

MR J. DREWRY, WAGN: What we want is what we are not allowed to talk about today, at least in WAGN that is the case. What we want is whole-route upgrades. It is all very interesting hearing about a marginal upgrading here and there, 7% on this and 9% on that. If all that is going to give me is the extra train, then it won't because I can't get the platform length or power supply. What I really want is to upgrade the whole service to double it, triple it. On both of the main routes I operate on, there is no chance of that unless we are talking about whole-route upgrades which is explicitly outside the bounds of this conference. So, it is very difficult to comment. In a sense, if we are haggling with Railtrack for a supplemental fee for 25 or 45, it is no great shakes to us. It does not deliver the vision of integrated transport, a ten minute service interval; turn up and go services over 100 mile distances. We are not in that discussion today.

MR S. HOLDER, NERA: Sorry, I am not a train operator but I would like to come back to the performance regime analogy which I think is interesting partly because I think it leads us to why exactly the train operators doubt the volume incentive will work, in that the performance regime, there is a clear case for allocating blame for incidents and what is missing with volume incentive is some kind of process for allocating credit to who has generated a growth and this would be the ideal system and we recognise it is impossible, but if there was some way of deciding who had generated growth, was it the TOC or Railtrack or was it the economy, then we would be only too happy to give Railtrack a very large share of the revenues which is self-generated.

But, unfortunately, there is no way of identifying those additional revenues which Railtrack's action, or TOC actions or general economic growth generates and because the received wisdom seems to be that most of the growth comes from TOCs and most of the growth from GDP, there are undoubtedly some areas where Railtrack can contribute but a lot of the growth comes from sources other than Railtrack. For that reason and not wanting to disincentivise traffic, then we come to the conclusion that any volume incentive has to be reasonably small and because it has to be reasonably small it means it will not actually reward Railtrack for those things which it can do.

We would like to identify those things which Railtrack does and give it a lot of money for doing those, but we cannot, and I think the point someone was making earlier on was if you look at it on the case by case basis, any decision Railtrack makes, the volume incentive is so small that it will not, except for the most extreme case, make the difference between a profitable and unprofitable investment, so it is just too blunt an instrument to expect to deliver very much at all. In a way, people have been

asking what do TOCs want Railtrack to deliver? If Railtrack can tell us what they can deliver for this volume incentive and what if you had an extra 5% of revenue, what you would provide, then that would help the debate to move on.

MR PLUMMER: We will come back to Railtrack in a minute, but more operators, please.

MR A. CATTIERI, GNER: I think I have to respond, if somewhat parochially, on what the train operators want. Obviously, at the moment it is quite an interesting time for GNER. What we actually want is a route upgrade of £1.6bn - I understand that to be the money. We want the East Coast main line to become the premier line to Scotland, although others in here may have other views on that! We have done lots of work on Railtrack. I am not sure we want to grow our train service by 100-200%, but we want to grow by 50% by 2004. We have done a large amount of work with Railtrack regarding the infrastructure and identified with them the substantial increases in infrastructure when you go above a certain number of trains an hour, for example, Welwyn Viaduct. Clearly, if we win our franchise renewal, we will enter a new track access contract with Railtrack and we expect Railtrack to show a profitability of this route but this is where I am seeing the difficulty in aligning the volume incentive with a route such as East Coast Main Line which requires massive infrastructure spend to go from one train service to another and then more services later on. I can see that to take into account that kind of infrastructure improvement, rather than a volume incentive, that might apply to other train operators who are seeking other infrastructure upgrades.

MR S. COPPEN: I have concerns about the lack of focus behind the volume incentive. A couple of particular thoughts come to mind. One is in relation to timetabling. In the model access clauses debate we have been talking about the potential for a Schedule 5 which is perhaps just related to quantum or one or two other rights. If there was to be a move to that form of Schedule 5 then there would seem to be a significant premium available to be claimed, perhaps increasing the capacity which can be provided over sections of the route; a premium though that would be at the expense of train operators who would be losing valuable rights represented by their other sort of secondary rights which are embedded in Schedule 5, so I feel I would have a concern if there was that kind of development. With regards to Schedule 5, would that lead to a benefit that Railtrack would claim in terms of seeing a volume incentive gain or is that a gain which ought to be apportioned elsewhere within the industry?

Secondly, regarding lack of focus, I think we see train operators investing hard to see passenger volumes grow. They have often very significant franchise plan commitments to make their train services more attractive to passengers. We see marketing initiatives, we see new trains. We see that happening in the light of franchise agreements and refranchising proposals which are stacking up the risks on the side of the train operators. So, there is a very significant investment and very significant exposure to risk on the train operators where we would see, perhaps Railtrack taking the upside if it comes off but perhaps not necessarily sharing to the same extent in the risk if those investments are unsuccessful.

MR R. GOLDSON, NATIONAL EXPRESS GROUP: I will give two answers if I may to the question of what do we want from Railtrack in this process. The first is we want Railtrack to use its

engineering ingenuity and all the resources that it has at its disposal to find cheaper and more effective ways of creating enhancements to the network. The reason that there has not been as many enhancements as we would like over the last five years is not transactions costs and all the other reasons given, but the fact, as I think Tony said a moment ago, the extra value created in terms of passenger value, additional signalling, additional platform loop, whatever. It is just not enough to say for the costs involved, so more ingenuity, use of your own contractors' resources, consultants, the lot, to find more effective ways, cheaper ways of addition to your capacity.

However, I am not sure how relevant that is to the discussion because I am still not clear whether the revenue, the volume incentive proposals are intended to finance enhancements or not. There has been ambiguity on this point from the various Railtrack speakers. I have to say that if it is envisaged that the volume incentive should finance enhancement, I do have a problem with that because the nature of it is that we have, let's say, a ticket office tax - let's be emotive - which creates a discretionary fund for Railtrack to invest in enhancements which nobody is quite clear what the decision criteria will be or whether it will benefit them. So, we would have problems if the intention is that the volume incentive finances enhancement.

However, I stand completely behind what my colleague Mike Price said ten minutes ago. Yes, we want a more successful railway network to be more successful for Railtrack too. So, we want to see Railtrack doing better out of a more successful network so we come back to the menu. Here I support Stuart Holder a moment ago, the menu of modest, small scale, enhancements that there might be. We choose between revenue or operating type ones. We would have a preference for something like train miles rather than pure revenue because if TOCs, through their own marketing and product redesign, create added value for customers which through better on-train packages, whatever, could be packaged in the farebox to which Railtrack's processes have added little, it is not clear what that is incentivising on Railtrack's behalf, whereas if we stick to the core function that Railtrack performs which is delivery of train miles, more train miles to higher quality, then sure, Railtrack should be rewarded and should benefit for having done that better.

So, a model volume incentive based on something like train miles is the conclusion we are moving towards having listened to those who have participated in this debate.

MR PLUMMER: I thought I had been quite clear at the beginning. My view is if there were to be a volume incentive, the presumption is that it does not fund any significant enhancement. Railtrack have said it might fund some little bits and pieces here and there but they would not fund anything significant from the money received from this. It would be extra money or less money, depending on whether they deliver or help to deliver additional train miles. But not major enhancement.

Can we hear from another train operator and then I will ask Railtrack to respond to what they think they are selling through this volume incentive.

MR H. REED, CONNEX: I think the problem we have in understanding the volume incentive is it would not really solve a lot of our problems. On the Brighton line I do not think a volume incentive is really going to sort out any problems. In the summary from Railtrack they are saying it would lead

to practically six ways of attracting customers through timetabling and scheduling. I am not sure it would because from other discussions it would seem that the ways of improving timetabling and certainly in the hands of the TOCs and perhaps Railtrack, would be more to lengthen journey time, to have only quantum rights in Schedule 5 rather than some of the rights we currently possess and one of the attractions to our customers is certainly attractive journey times, easy to remember timetabling, turn up and go, which another of my colleagues said and I do not think that improved timetabling and scheduling is going to come from a volume incentive.

MR PLUMMER: Who from Railtrack would like to respond to how your behaviour would change, and what are you getting through this volume incentive?

MR CORBETT: My impression is that given the economics of train operators - and my knowledge of train operators is that growth is everything to them because it drops through to the bottom line and train operators are about growth, bottoms on seats, *et cetera* -. the reality at the moment is we are not about that. We have our Executive Committee meeting tomorrow. We have a round of reviews starting and our agenda at the moment is driven by safety, train performance, broken rails, track quality. When we talk about the investment we actually talk about where we are on this year's investment programme and how efficiently we are delivering it. We are not actually busting a gut to help you guys grow your business.

There was the discussion about GNER and West Coat upgrades and I think that is all moving along, for better for worse and there we can see a light at the end of the tunnel and see the possibility of doing a deal when we move forward, but when you sit at our meetings, because of the way we are set up and incentivised, the thrust of those meetings is not about helping you guys grow your business, it is about how to grow our business - (**Laughter**) - However we did it, I can guarantee you it would dramatically change our agenda and change the shape of our meetings and align us with you because we would be then working hand-in-glove with you, helping to do all the things you want us to do. It is always best if I talk before Richard because he is never quite sure what I am going to say! (**Laughter**)

MR MIDDLETON: The issue is incentivisation. It is not a shopping list. There is not a whole list of schemes that suddenly pop out of the cornflake box as a result of this. It is Railtrack working alongside its customers to grow business. Do you want Railtrack to be indifferent to your growth? This industry is growing. I have worked in it for 24 years. It is only in the last few years that we have seen the potential for growth, and we have to grab it and Railtrack wants to be part of that, to be incentivised to get more people and freight travelling by rail. I think that is a good thing and I hope you do too.

MR PLUMMER: Anybody like to respond to that briefly? (**Pause**) No further questions on this issue. The next area relates back to usage charges with a possible refinement on that to improve the incentives to maintain track and vehicles in an efficient manner. Matthew Cherry is going to outline some of the key issues here.

MR M. CHERRY: As I mentioned this morning Booz-Allen & Hamilton also proposed the introduction of a regime to incentivise vehicle and track quality. Their November report on cost causation suggested a regime be introduced through adjustments to the base usage charges and the ORR consulted on this possibility in the November technical consultation.

Before passing over to Booz-Allen & Hamilton for them to explain their proposal, I would like to say a few words about the issues we would like to consider at a high level.

The quality of the track over which they run affects the level of maintenance of rolling stock and vice versa. The post privatisation structure of the railway means that different industry players are currently not incentivised to take into account the effect of this physical interaction between wheels and track. These effects are not captured in usage charges which are averages. If a regime were to be introduced to incentivise improved maintenance this could lead to all parties benefitting from reduced maintenance costs.

If a regime were introduced it could be done through a system of regular, say annual, adjustments to the base usage charges paid by an individual operator. On that basis this would be a rebate or surcharge on the base usage charge and the amount of the adjustment would reflect the forces exerted by track on wheels and vice versa for that operator. The issue is then to determine the amount of maintenance required, the adjustments would be set in relation to a preset baseline and the ORR would need to set out the method by which the variation from the baseline was translated into a monetary amount. This level of the incentive would need to be linked to the underlying change in costs being caused.

Once again there are implementation issues to be considered. Such a regime could be introduced at this periodic review to come into force at some point later in the control period. Alternatively the work to design such a regime could be initiated now, but the decisions about whether to introduce the regime could be made at the next periodic review. The ORR will also need to consider various practical issues. First concerning the installation of the actual equipment that this system would require and the costs of so doing. Second the elements of establishing a workable and robust regime and the setting of a baseline. Third, we would also need to consider how the relevant baselines might be set following a period of shadow running; whether they should change over time and their relationship to other elements of the regulatory regime.
At that point I would like to hand over to Adrian Foster from Booz-Allen & Hamilton to talk in more detail about the proposal.

MR A. FOSTER, BOOZ-ALLEN & HAMILTON: Good afternoon. This is another element of the cocktail. One of the issues that came out of our review of the usage charges was the lack of role for condition in this whole matrix in the arrangements between operators and Railtrack. I am going to talk about a specific issue in relation to condition which is how condition might play a role as a variation on usage charges. This is another one of those alignment slides. Clearly, policymakers should be addressed to creating a framework for charges that reduces total system costs and in that aligning, the objectives of operators in the infrastructure are provided. It needs to be recognised that some of the costs on infrastructure are created by train operators and vice versa. Some of the train

operators are actually created by the infrastructure providers and managing those two businesses as separate entities does not lead to minimisation of total system costs.

The usage discussion this morning rehearsed the argument that currently there are some 2,000 consist types which define usage charges for individuals, and it seemed to us that this was really based on design. It took no account of the condition of assets and clearly at the rail-wheel interface there are substantial transfers in cost between operator and Railtrack depending on the condition of the assets, so poor vehicle condition can impose big costs on track and it seemed to us also that this might be bigger than the difference between different types of bogie, that is, if you had a poorly maintained vehicle with low track force bogeys, you might end up creating more costs to infrastructure than if you had a conventional bogie which is well maintained.

It seemed to us, therefore, that we should try to get an incentive across that boundary which encouraged the presentation of vehicles in good condition to the Railtrack network so that it took account of the fact that Railtrack's costs would then reduce and that would be in everybody's interests.

Similarly, poor track condition imposes costs on vehicles in two major areas, firstly in terms of energy costs where corrugation or roughness of track will lead to high costs of track generally, and in terms of high vehicle maintenance and there is a particularly extreme example of that in Heathrow Express in the last couple of weeks.

So, current arrangements with respect to quality are basically relying on an administrative threshold where vehicles pass a threshold established by good standards, but this is essentially a one way arrangement. It is a limit on the extent to which poor vehicles can impact on Railtrack's network. It also has to be said that that might not be at a level of optimum business case for the industry as a whole. I am not referring to safety issues there but the level at which that set may not be at industry optimum levels.

Secondly, we thought that an incentive regime based on asset condition plus asset quality could assist in providing better drivers of behaviour across the rail-wheel interface, through measurement of track quality to improve the track on which vehicles are operating, where this impacts on costs to operators as well as benefits and, secondly, to incentivise operators to present vehicles in good quality to the Railtrack network in a way to minimise Railtrack's costs.
The equipment to achieve this regime exists today. Track quality is already monitored by Railtrack's rail profile measurement systems which are widely used around the world. On the vehicle side there are several systems which measure various bits of the wheel and the rail interface in terms of horizontal and vertical loads. I have been inundated since the Regulator published our report, by manufacturers of equipment that we did not mention in the document. They are still sending me brochures!

We believe that a system could be easily implemented, as Matthew said. We would see this as working from baseline conditions and then with an incentive regime based on standard deviations from the baseline as an average over a measurement period and the measurement would be based on sampling, not on an every day, every hour basis, but on a sampling basis, just as that sample is today.

One of the key issues in adding this regime into the usage charging process would be to put appropriate monetary values on these relationships and essentially the relationships are well understood. They are basic engineering relationships that are well understood in the industry and when we looked at other railways in the world, we found there were railways which had monetised these relationships and a particular example we found was Indian railways and the civil engineers used these kinds of relationships to determine when they should be renewing track.

There are other examples but it shows that outside the UK there is work, there is research in these areas which can be drawn on in this context. But, in order to implement this, we recommend a period of shadow running is adopted. The system would need to be fine-tuned to conditions in the UK. That is clear and we would certainly need time to stand and see where, the volumes, the amounts of money, are liable to flow and to whom, in order that we could set appropriate incentives, set an appropriate regime. Thank you very much.

MR PLUMMER: Dan, are you going to reply to that, if you could keep it as brief as possible.

MR BOYDE: I am going to run briefly through Railtrack's initial response to this suggestion. First of all, clearly the principle of a maintenance quality performance regime is sensible. I think we are in line with most of the consultation responses on this point, trying to internalise the externality, as the economists would say. It is true that poor track quality affects vehicle maintenance costs and vice versa. I would also note from one or two of the consultation responses, some of these impacts may be a chicken and egg. Poor track can contribute to wheel-flats which can contribute to worsening track.
If we are going to implement a regime, what is required? First of all we need measurement systems for track and vehicle maintenance quality in some shape or form. Secondly, and this is a critical area, the evaluation of the costs imposed on other parties by poor maintenance needs to be understood. The objective is to capture some costs imposed on other parties that we are not capturing through the regime. We are trying to vary usage charges in a way that is cost reflective. We need sufficient data to establish benchmarks for the various measurements of maintenance quality that will be acceptable to the industry.

In assessing the regime criteria, this requires a proper cost-benefit analysis. We need to be clear that the benefits outweigh the costs of implementation of the regime and the example of it. If we have to spend a lot of money for example estimating costs that only vary by plus or minus 5%, then we are probably not in business. Assessing the costs of changes, we have to assess whether they are systematic, whether they are graded variations, whether they affect costs over a steady function or whether it is an all or nothing until you get a wheel flat that leads to broken rails.

In judging whether this is worthwhile, you have to have a base case to asses against. In this case we need to assess the existing contractual process and the alternative measures that could be introduced. Looking in a little more detail at the requirements, this is an attempt to summarise how quality affects costs. Do we have the measurement systems in place? Is the data there to support the benchmarking of a regime? Do we have an understanding of the measurements in place on other parties?

Looking first at how poor track maintenance will impact on vehicles, we find the answer is yes. Adrian has already referred to the regular measurement of track SDs. Moving on, do we understand how the impact of measuring changes in those things that we measure on track quality, do we understand how those affect the costs incurred in maintaining the vehicles? From Railtrack's perspective, the answer is not known. We suspect a significant amount of research will be required to quantify that, and I would like to hear from TOCs as to how you feel your state of knowledge on those cost relationships is.

Looking at the other side of the regime, how does the impact of poor vehicles on track affect the track costs? Adrian has mentioned a number of measurement systems but at the present time, are there systems out there in place at the moment already making regular measurements? There are wheel loading detectors, but they are not widely utilised and I think the data needed for benchmarking, the kind of regime being proposed is not adequate at the present time. In terms of understanding the costs, there is work, the track damage models we have developed and are proposing to use for the variable usage charges are modelling these fundamental charging cost relationships. Further work can be done in attempting to quantify that, but I would be wary of underestimating the amount of work going into that, bearing in mind the work to understand the relationship for track in average condition.

Finally, this is a quick summary of Railtrack's suggested way forward. As I said, we think the idea of a contractual maintenance quality regime is a good idea in principle and this seemed to be accepted by the majority of consultees. However, we do not think it is a realistic option for this periodic review. It has yet to be demonstrated that the benefits of introducing the system will cover the costs of administering it. We think there will be a fairly substantial lead time in measurement and particularly in quantifying the costs if that is what we are seeking to internalise. We think the research should be done seriously so that at the next review we have come to the conclusion whether this is a good thing to introduce rather than considering a whole new principle at a very late stage in the process.

This does not mean we think that nothing should be done in the next control period. We have suggested track quality incentives on Railtrack at national level. They should be introduced and the licence is one route by which track quality could be incentivised at the next control period.

In terms of measurement of vehicle impacts we will be extending wheel impact detectors and increasingly seeking to impose penalties on vehicles that breach certain standards, most obviously, in terms of denying access to things that are beyond acceptable limits. That is all I have to say this afternoon. Thank you.

MR PLUMMER: In the discussion, I think it would be useful to differentiate between the question whether this is a good idea in principle and the question as to when it should be implemented, if at all. So, bearing that in mind, who would like to ask the first questions?

MR R. GOUNDRY, FREIGHTLINER: I think there are difficulties in the proposal and I support Dan Boyde's reservations. I strongly support things Railtrack have said in fact. For starters, it is likely vehicles not being satisfactorily maintained are unsafe. It is also likely that track which is not

being satisfactorily maintained is unsafe. We are talking here not about a contractual financial relationship but a key safety relationship. Operators should maintain their vehicles to comply with Group Standards. That is audited by the operators themselves and externally. I think it is quite unlikely, although it is probably worth determining, that it is quite unlikely that vehicles which are maintained within the Group Standard requirements are actually contributing from a maintenance point of view to the deterioration of Railtrack's track. I know that if Railtrack discovers its track is not up to standard, they impose temporary speed restrictions until such time as they can bring it up to a proper standard.

I think it would be wrong to confuse the financial implications in this particular topic with sound safety management. I would be interested to hear what other people have to say, but I think it would be wrong to rush into something like this here and now for the safety considerations, let alone for the financial complexities.

MR M. BESWICK: I think we should be very clear on this, that the safety obligations take priority. This regime is irrespective of the safety obligations, the proposition is about the engineering relationships. It is still down to Railtrack to manage the safety of the network. Does anybody else want to comment on what Bob has said on that? Is there a belief that there are engineering relationships, cost relationships even over and above the safety implications? I would have assumed the safety implications were a baseline point.

MR S. PALMER, CONNEX: I would like to strongly support what Bob said. I think all of us in this room would be seriously remiss if we did not profess full support for maintaining adequate safety standard requirements and in fact those are very onerous in reality in both track requirement and vehicle requirements. I am very nervous about the materiality of this whole subject beyond that which is necessary for safety and the question which I think both Dan and Adrian touched on in effect was that I think there are bigger fish to fry, if one may say, than this particular issue and I am not sure what the "total value" of all of this is, Michael. I suspect it is not that big, personally. I just do not know, but as I say, in the grand scheme of what we have been talking about today, we do not really know enough at this stage to jump in, which might very well result in it being perverted in some way.

There are things that both the infrastructure controllers and certain operators know about the characteristics of their vehicles in terms of passenger operators on the five years and for other reasons you are going to see a significant shift away on large parts of the network; AC traction motors on modern EMUs. So there are other things happening making this less important than it was. We know certainly there are particular types of freight vehicles, those with pedestal suspension which are extremely hard, shall we say, on the track. Again, things will happen over time to change those and I would just be nervous to think of a whole layer of measurement and negotiation discussion and potential argument about something which I think in the grand scheme of things is probably not that important and I think we should park this in a siding for a little while and maybe come back to it when we have some of the other things, which are more important, sorted out.

MR I. SMITH, EWS: I think that improvements in wheel-rail interface will reduce access costs to all operators considerably and I think that is the most important thing that we as operators can do in

the next few years. I did have a question to ask Railtrack about what we can do in the next control period and that is to introduce a rail lubrication system into the programme. As the Regulator knows we have almost completed a sophisticated mechanistic model which has suggested that by reducing the coefficient of friction at the interface. Railtrack could halve that annual equivalent cost of rail and all operators, diesel operators could save 5-10% through this. Can I ask Railtrack, is that on the agenda?

MR MIDDLETON: We have introduced a programme of rail grinding across the network, we are bringing in enhancement machinery; we are bringing a machine over from Sweden which will work on the network very soon which will improve the rail profile throughout, not only is it lower maintenance cost but it also produces the ability

MR IAN SMITH: Is it preventive grinding or corrective grinding?

MR MIDDLETON: It is both. Initially the programme of rail grinding on the UK rail network has not been in the past aggressive grinding, it has been more of a maintenance grinding, but aggressive grinding does improve the wheel rail profile. It will also give much greater exposure to inadequate vehicle maintenance because it is much more evident which vehicles have got flats and the point that Dan was making was that while we still may not have a quality performance regime in place for the next control period we will very shortly, i.e. within a couple of weeks, be publishing a consultation paper to the Industry on detection and management of wheel flats. We believe one of the reasons for the increase in broken rails on the network is the increasing number of flats that are prevalent and we want to deal with those through enhancing the line standards and how vehicles are maintained and presented to the network.

MR PLUMMER: In the final session we will talk about a range of issues on the implementation side. First of all Phillip O'Donnell will talk about the franchise agreement pass-through arrangements and then Railtrack will be talking more about some of the practical aspects of implementation.

PHILLIP O'DONNELL: I am from the SSRA. Those of you who are franchisees or franchise operators I hope know that there is a clause in the franchise agreement, 18.1, dealing with the charges review and it known colloquially as the pass-through clause. What it provides for is a review of the franchise agreement within one year of the conclusions of the Regulator's charges review coming into effect, so I guess that is effectively end of the first quarter next year. Clearly once we have the conclusions of the review and I guess Railtrack goes away and does some numbers which are train operator specific we can then sit down with individual train operators and determine what is required.

The scope of clause 18.1 deals with both fixed and variable charges. It would cover for example changes to station charges, changes to leases, and indeed changes to performance regime payments. Specifically it does pick up Schedule 4 and 8 via the inclusion of Schedule 7 Part 8.
There is an additional provision in the franchise agreements, paragraph 23 of Schedule 7, which is the performance regime so there are two that tie into the performance regime between the Regulator's review affecting Schedule 8 and the franchise agreements and again we will need to work through,

when the details of the charges review have been finalised and understood, which of these mechanisms applies and how it will be applied.

The key clause or key part of clause 18.1 is F which sets out the basic ground rule that the adjustment to the terms of the franchise agreement will be to ensure that the franchise operator suffers no net financial loss and makes no financial gain as a direct result of the charges reviewed. That is to say this is not a one way bet. If the outcome of this exercise is an overall rise in the level of charges or a rise in the level for a particular train operator, that leads to one adjustment. If overall or for particular operators it is downwards then again that gets picked up, so the clauses are drafted to allow the outcome to flow either way, either an upward adjustment to franchise payments or a reduction.

The provisions also allow for disputes under the normal disputes arrangements where we all go off to the Rail Industry Dispute Resolution Committee for an arbitration under those rules. Hopefully it will not get that far but that mechanism is built into the franchise agreement, but the Franchising Director is entitled to determine the manner in which any adjustment is to be made.

A broad statement of what the SSRA will be trying to achieve here is that we are looking to support improved incentives. Clearly the intention of 18.1 is that we are dealing with a pass-through rather than a profit opportunity for either side, so we want to avoid a situation where there are windfall gains or losses. We have decided that it is appropriate to protect current outputs.

Now some of you, and all the franchise operators and franchisees, should have received towards the middle of last week a letter from the SSRA broadly setting out these messages. The key point to make is that we will be very happy to sit down with franchise operators and franchisees individually to go through the implications of that letter. We suspect that until the charges review has been completed, until we have at least final conclusions in July, it will be difficult to pin this process down entirely because of the possibility of multiple changes going on and the material we have gone through this morning when we were talking about the introduction of some form of capacity reservation fee and a volume incentive and presumably changes to Schedule 8 and Schedule 4 so one would need to look at the package to know how best to proceed but if any of the franchise operators or any of the franchisees does want to talk to SSRA individually or as a group we will be very happy to arrange an appropriate meeting. Thank you.

JULIAN DREWRY, WAGN: Without having checked with all the other franchise operators I think we will all say the same thing, yes, Phillip we would like to talk to you about it. Jeremy and I spoke to you at lunch time and you have heard some of our initial views. We have had no chance to talk or confer with other TOCS and FOCs before today but I am sure we will want to talk to you in quite some detail about this proposal. As it stands the letter you issued last week would not be fit for purpose in terms of the objectives that you have set out. I think there needs quite a bit of work doing on it to make sure that there is a fair and equitable solution for no net loss and no net gain, much too much to talk about here today.

MR O'DONNELL: Fine, if you want to get in contact or if ATOC wants to organise a session, that will be very helpful to the franchisees I guess.

KIERAN PRESTON, **WEST YORKSHIRE PTE:** Just two points. First of all on this particular clause, no net loss and no net gain, are we talking about services at all being a factor or are we just talking about money?

MR O'DONNELL: If we presume, and I think we do presume that we are dealing with a change in fixed and variable charges, this was the point covered in last week's letter, if we presume - I stress presume - that what we are faced with is a rise in variable charges then the letter recognises that in order to do the calculation no net loss no net gain - and I need to turn to the precise provisions of the clause in a moment - you have to take a view on the volume of train miles which are going to be operated. What the letter says is OK, we need a planning assumption here, and that assumption is that the mileage we will assume is that which has been running during the summer of '99 and the winter of '99/2000 timetable, so that gives us a fixed point in order to do the computation.

In order to ensure there is no windfall in gain to train operators we would then wish to have an agreement with those train operators fixing the mileage to be run for the remainder of the franchise and that is the point Julian was referring to where I suspect the train operators and the franchise operators will want to discuss precisely how that is to work.

So yes, if we assume a rise in variable charges the likelihood is, other things being equal, train operators would want to change their train mileages to the extent that their existing agreements and PSRs allow them to.

MR PRESTON: If I can continue the discussion, would there be any circumstances under which in terms of affordability you had to talk about service reductions?

MR O'DONNELL: "Any circumstances" is rather broad. We hope we are not talking about service reductions. That statement is made on the premise that the overall impact of the charges review is an aggregate reduction in track access charges. Clearly if there was an aggregate increase not having got the Chancellor's cheque book with me at this moment or authority to sign, I think that is an issue we would look at. We would be to say the least concerned if we thought we were talking about reductions. I have to say that is dependent upon what the overall change is, and clearly the availability of funds to SSRA at the time, but as we drafted the letter our policy intention is to protect at least the existing level of output.

MR PRESTON: Just a broader point if I may. When the access charge review process started out, PTEs were particularly concerned because we felt that the terms of reference did not really pay significant attention to how we capture social benefits. If I talk to both the Regulator's staff and Stephen Gibson about how we do build into this process the need to further develop the services in PTE kinds of areas where after all it is those kinds of areas that deliver Government policy.

Now when you talk about increasing the variable element of the charge and then you also talk about congestion charging I can see a scenario developing where OK, in overall terms if there is no overall increase PTE services can be protected as part of the franchise replacement process we can ensure current service levels are protected and possibly even enhanced if we can demonstrate such a social

benefit itself, but what happens when you get into the process of two years or three years into a franchise. It is really the kind of areas where they are congested, we do have stopping services, congestion is around places like the West Midlands and Manchester. My concern is how do we complete the circle so that the Government and the Strategic Rail Authority ensure that you have enough money in your funds to capture those social benefits because it is not a simple process is it?

MR O'DONNELL: No, there are some difficult issues here, which you and I and others have discussed in the past. I think if the Regulator comes to the conclusion that Railtrack's variable costs have in effect been under-estimated and that the variable charges, the usage charges, should be higher, and that there is a case for a congestion charge, and there is a case for a volume incentive as well, those three things together may have quite an impact on the marginal rate, on the marginal cost of running a train. As I have said our intention is to protect existing mileage simply as a policy objective, but you are quite right, whilst we can do things also in re-franchising at some point either the PTE or we or a train operator is going to want to run additional train mileage and at that point we will be faced with the impact of higher variable charges.

Now that may mean greater use of RPP, or it may mean that trains which might have run do not run, that will be into affordability, and I guess the economic trade off here is whether we are getting the marginal price signals to Railtrack and the Industry right. This is going to take some working through because we have got the arguments presented in the provisional conclusions last year and the technical appendices that usage charges had been under-estimated; we have got the arguments for a congestion charge and a volume incentive. So the impacts on all of those things is going to have to be sorted out, but I guess there is a hard message here beyond some point running an additional train mile is going to be a lot more expensive than it was and we may have to live with that; within the constraint budget that does mean less resource available and that is going to be the consequence.

MIKE PRICE: My memory of the franchise agreements says that the clause 18.1 only covers rights that were granted at the time the franchise was let and that means it does not cover additional rights which have been negotiated since the franchise was let. It would appear from the way that Railtrack have presented their charges that while the overall level of charges may fall, the charges for additional rights may increase.

MR O'DONNELL: I have not checked to see whether there is a special Scottish Law version of the franchise agreement, but I think you will find it does not tie down in quite that way, it does not tie back to the PSR for example in that way.

MR PRICE: It relates to a track access agreement and at a particular date, the date that it was signed.

MR O'DONNELL: Very well, I will check that.

ALEX McTAVISH: I thought from Stephen's presentation this morning that there was no presumption that marginal costs would actually rise as a result. In fact I distinctly remember, it was the first slide of Stephen's presentation, showed that it is indeterminate whether prices will actually go up at the margin or not. The fixing of mileage was done on the basis that you thought it would go

up, the marginal cost, can I just be clear about this, because from Stephen's presentation - perhaps he can just remind us of what he thinks will actually happen as a result of the introduction of that full range of incentives that we talked about earlier?

MR GIBSON: You are precisely right. The overall level of variability will go up because what we are doing is including a variable net element in what is currently being a fixed charge element of the regimes. On the margin, where you are making decisions whether to run a new train or not, then depending currently on, for example, how well either side negotiates for a share of benefit and the particular service, depending on the negotiation outcome of the model case by case congestion, costs related to a sort of average tariff capacity reservation fee and on the effect of changes to the usage charges will have different outcomes on a case by case basis.

JOHN SMITH, **RAILTRACK:** Paul, I think you referred this morning to the fact that ORR were doing some work I think this side of the July Determination on modelling the impact of different charging structures and Railtrack has done a bit of work in that area itself and presumably SSRA will be looking to do work post-July following the determination looking at the impact of different charging structures on marginal costs and trains running the network. Could I clarify who is doing what in this area in terms of modelling economic impacts and how this will come out?

MR PLUMMER: I think it is a matter of timing is it not, that we would be analysing some of these issues in order to inform our decision, and without putting words into Phillip's mouth he will be analysing the implications of those decisions in order to determine how it should be passed on to the franchise operators.

MR O'DONNELL: I am presuming that after the final conclusions in July one of the next exercises probably I guess will be for Railtrack to go away and determine what this means in respect of the charges for each operator. When we have that level of information I think we can then move on to a different level of debate with individual operators as to how to apply l8.1 in their particular circumstances, because I guess that takes us well into the third quarter of this year. I do not know if you have given any thought as to how you will get to final conclusions with some numbers.

MR PLUMMER: Unless there are any other questions? (No response) I think we will move on to the final presentation from Railtrack.

STEPHEN GIBSON: I am going to give a short presentation on some of the implementation issues relating to introducing a new structure of charges. We have had a quick review of the timetable earlier, ORR's Spring Provisional Conclusions we understand to be scheduled for the end of March following which we would expect to calculate a full set of draft charges for May which would firstly inform final conclusions but also be in time to inform decisions made at the June time-tabling conference for services run in the summer 2001 timetable. We understand that there is potential for a technical consultation paper on capacity reservation fee if that policy is endorsed in March. Following which we will have ORR's final determination in July and Railtrack will undertake to calculate the final set of charges probably about August time well in time to put those charges into contracts before the start of the next control period.

In terms of the timing of the introduction of charges and Matthew alluded to this in his presentation earlier today, the fixed charge in a sense is the easiest one to deal with. Because it is fixed it does not impact on the incentives, so it is sensible to have that kick in at the start of the relevant financial year in April 2001.

However for usage and EC4T charges the decisions over which services will actually run in the timetable between April 2001 when the control period starts and May 2001 when the summer timetable kicks in has already been taken, they are part of the Autumn/Spring passenger timetable for this year. Therefore we think it is sensible to introduce changes to charges at a time when it can actually influence decisions, which is at the start of the summer 2001 timetable in May.

For the volume incentive, depending upon the exact specification that is taken and depending on the recording systems that are needed to measure those metrics that are chosen, we believe those could be introduced at the beginning of the control period in April.

However as to the capacity reservation fee that was alluded to in the session when we discussed it in more detail, the calculation is dependent upon the rates that are in the performance regime. Those rates are being changed and reviewed as a result of the current periodic review and it is unlikely that we will have any idea of which way that is going before July, so therefore it will be too late to inform the summer 2001 timetabling decisions. We think therefore that this should be introduced with the changes to the Schedule 4 regime (with changes to the incentives for possessions) which also have a very long lead time (because of the T-68 planning possession regimes) for the start in the summer of 2002 timetable period.

The Regulator also in his consultation papers raised the issue of the possibility of an interim review between 2001 and 2006. We think that this periodic review needs to be full and comprehensive to allow parties to plan for their future with a reasonable degree of assurance and if you want to have effective incentives you need to know how they are going to operate over a reasonably long time period in order that you can actually design your companies and businesses in order to react to those signals.

Covering the individual areas that the Regulator suggested might be included, firstly the geographic usage charge. We believe this could be introduced from May 2001 in line with other changes to the usage charges. The issue that was debated at more length this afternoon on a usage charge to reflect changes to track quality and vehicle quality. As we have said given that it has taken two and a half years to get to where we are now on understanding usage costs (and that was not from a standing start, that was from a fairly reasonable understanding from BR of mini-MARPAS engineering relationships), we think that has a pretty long lead time in terms of understanding the costs associated with that. When you add on to that the lead time in terms of timetabling services that are actually affecting behaviour we think that should be introduced for 2006 but with research starting as soon as is sensible.

I have already suggested the capacity reservation fee could be implemented in 2002. The Regulator has also suggested that operators might be interested to purchase their own electricity. The technical problem with this is that it requires meters on trains and that has a very long lead time in terms of introducing them on a significant proportion of the rolling stock on the network and we think that the time scale for introducing those are for the next periodic review. Thank you.

MR PLUMMER: Just before we have questions on that, one point of clarification. Our provisional conclusions are due in the Spring, whilst March is certainly in the Spring it may be early April rather than March. There are a number of other things which are happening at the end of March which will want to be kept separate. Are there any questions on the implementation issues?

NEIL WILSON, **FIRST NORTH WESTERN**: You made no reference to the date when Schedule 8 changes will be made.

MR PLUMMER: The main changes would be made at the same time as the rest of the periodic review, being implemented in April 2001, but there may be some further changes associated with franchise replacement.

MR WILSON: Secondly, there was a reference made to some informed decision to be taken at the timetable conference. That was not very clear. Could the speaker expand on that?

MR GIBSON: Yes, it is a simple issue that decisions about which train services are going to be run in the Autumn 2000 going through to May 2001 timetable have already been taken, they were in the last Autumn's timetabling conference, and decisions for the Summer 2001 timetable are being made in the June timetabling conference this year. That is when the decision on what the timetable is actually going to look like. So that is when the charging signals, if they are going to effect behaviour, need to be known and understood. If you tell people what the charges are after the timetable has been set then clearly you are not actually going to effect the decisions in that timetable.

STUART BAKER, NORTHERN SPIRIT: I think you may be over-estimating the complexity of the metering of electricity and I would like to ask if that can be moved on more expeditiously, particularly for those operators who will shortly have meters on all their trains.

MR BOYDE: The technical advice that we have had is that the supplying companies would need to see meters on trains before they would be prepared to sell to you directly. Our understanding of the state of development of metering technology is such that, for it to be sufficiently reliable for all the parties involved to be happy with the regime, there is quite a lot more work to do and it may be you have further developments on this to inform us of, but that is the position we have taken on the advice available to us.

PAUL PLUMMER: The position from our side is somewhat different to that. First of all I think there is no need whatsoever for the meters to be in place before you can have direct supply from people other than Railtrack. Secondly on the matter of technology we need to hear from you as to whether

it is practical and on what timescale it is practical to introduce metering on trains. These are two separate questions, about metering and about competition.

LORD BERKELEY, RAIL FREIGHT GROUP: There were a number of allusions today about the effect on freight and volume of incentives and capacity reservations, do I understand that there is going to be a sort of freight document issued quite soon for further consultation on some of these issues and if so when?

MR PLUMMER: I cannot give you a firm answer on the when but it is important I believe that we have a document on the freight charging policy as early as possible this year. There are a number of issues that need to be clarified particularly in the run up to the negotiations, and during the negotiations that are going on with freight operators at the moment.

STUART PALMER, CONNEX:. Can I pick up on Stuart Baker's point which I deliberately have not mentioned in EC4T today because it is subject to separate discussion, but there is an important point that Stuart has raised. No one has yet today, I have not heard the dreaded word "environment" I do not think. You all need to be aware that there is basically no incentive on TOCs to be economical on traction current and I think that the sooner we do get metering and direct pass-through between what we actually consume in terms of encouraging cutting out units in berthing points, encouraging sensible driver technique in terms of coasting etc., is actually a very positive thing for the Industry and I think if we are serious about our green credentials in the current environment I think the sooner we get to grips with this issue and actually do genuinely incentivise operators to be energy-efficient that is actually a big step forward.

MR PLUMMER: I am very pleased to hear a very positive response about metering. If people think it can be introduced quickly and at relatively little cost then that will be a very positive step. I urge you to write to us on that as soon as possible if you have not already done so. Are there any more questions. It is your last chance today. (No response) The last word will be with the Regulator.

THE REGULATOR: As you have seen I have not adopted my usual interventionist approach today but I have been writing down every single word that you have been saying. That is all for today. We are very grateful to you all for attending, for giving us your contributions, for your thoughts, for your imagination, for your ideas and we want them to keep on coming. We want this to be as constructive, open and transparent a process as possible. This is your chance to have your say. You can say anything you want to us and we will listen and take all of it into account. A transcript has been taken today and it will be published on our website as soon as possible. Any further points which you want to make to us, including any points of clarification arising from the transcript, where you feel you have expressed yourself poorly, or something you wish you had said, then put it in a separate supplementary note and we will take that into account and we will probably publish it, but we want these further points to be with us by the l0th March 2000. We will publish our provisional conclusions in the Spring of this year and we will want further comments from you on those provisional conclusions, and the final conclusions will be made in the summer of 2000. This is just a milestone on a long road. Thank you.