

REPORT OF PROCEEDINGS BEFORE

PUBLIC ACCOUNTS COMMITTEE

**EXAMINATION OF THE RESPONSE TO THE AUDITOR-GENERAL'S
REPORT ON SIGNAL FAILURE ON THE METROPOLITAN
NETWORK**

At Sydney on Wednesday 12 August 2009

The Committee met at 10.00 a.m.

PRESENT

Mr P. E. McLeay (Chair)

Mr G. A. McBride

Mr P. R. Draper

Mr N. Khoshaba

Mr A. J. Roberts

Mr J. H. Turner

CHAIR: I welcome representatives of RailCorp. Thank you for appearing today to provide evidence on the Public Accounts Committee's examination of the response to the Auditor-General's report on signal failure on the metropolitan network.

ROBERT FRANK JAMES MASON, Chief Executive Officer, RailCorp, 18 Lee Street, Chippendale, and

JOHN GREGORY MINCHIN, General Manager, Infrastructure Maintenance, 477 Pitt Street, affirmed and examined, and

PETER CHARLES ACHTERSTRAAT, New South Wales Auditor-General, 1 Margaret Street, Sydney, and

SEAN MICHAEL CRUMLIN, Director, Performance Audit, New South Wales Audit Office, 1 Margaret Street, Sydney, sworn and examined:

CHAIR: I draw your attention to the fact that your evidence is given under parliamentary privilege and you are protected from legal or administrative action that might otherwise result in relation to the information you provide. I should also point out that any deliberate misleading of the Committee may constitute a contempt of the Parliament and an offence under the Parliamentary Evidence Act 1901. I will now invite RailCorp and then the Auditor-General to make a brief opening statement. Committee members will then ask you questions and if witnesses wish to raise issues for discussion, I ask that you direct your comments through the Chair, as witnesses may not directly address each other. Mr Mason, would you like to make an opening statement?

Mr MASON: Thank you, Chair. Chair, members of the Public Accounts Committee, I thank you for this opportunity to answer questions from the Committee from our response to the Auditor-General's report. I have brought with me Mr John Minchin, who is my General Manager, Infrastructure Maintenance. The audit review 2004-2006 signalling performance—and I would like to thank the Auditor-General for the positive aspects reported in that report—was a very positive relationship and it has been ongoing in that way. RailCorp accepted all the recommendations and we have provided our proposed actions, which we are tracking against.

We have progressed all the recommendations and the results are shown in our on-time running performance in the railway. From the original 2004-05 year, we have had on-time running of just over 60 per cent. In the last four years we have moved to 88.6, 92.2, 92.7 and most recently for the year just completed 95.4, well above our target of 92 per cent. The results of our on-time running are very pleasing but there is still more to be done. All aspects of our reliability performance have improved, with signalling accounting for approximately 11 incidents per month last year.

There have been some significant impressive results in the signalling area, and we will refer to our signalling program later on, where with the city underground we have had significant improvements. Similarly the delays, as a result of the incidents, have also reduced from approximately six to just over four in the last four years. However, like all railways around the world, there is a worldwide shortage of signalling engineers, and that was raised by the Auditor-General in the report. This still impacts on our capability to grow the railway. This is a time when many governments around the world are investing in infrastructure, especially rail projects.

We do have a very diverse program to address this shortage of engineers, both for the present and for the future, so we are doing international recruitment—and I will come to that later—of graduates, networking with universities, apprentices, and, more specifically, working with the public sector to help us with those resources in both track, power and signalling. This remains one of our main focuses for the organisation.

CHAIR: Mr Achterstraat?

Mr ACHTERSTRAAT: Mr Chair, members of the Public Accounts Committee, I also welcome this opportunity to assist the Committee's inquiry into our performance audit report on signal failures on the metropolitan rail network. I would like to give the Committee some context to the report's recommendations, which were developed after detailed consultation with RailCorp. Signalling failures can delay many trains and inconvenience many passengers. The audit looked at whether RailCorp is keeping the number and duration of signal failures low enough to support its on-time running target. It included a review of signalling maintenance and RailCorp's response to signalling failures.

The Government intends to significantly increase public transport usage over the next 10 years while maintaining on-time running. The signalling system will be critical to creating both the capacity and the demand needed to achieve this. Overall, our report found that RailCorp had reduced the number and duration of incident failures. It had improved its management of signal assets and its response to signal incidents. We made a series of recommendations designed to build on this base. These included using more sophisticated approaches to determine the number and duration of signalling failures the network can tolerate, benchmarking, and developing the signalling system required for projected future patronage levels.

We also cautioned RailCorp to be vigilant to ensure signal maintenance does not lapse in an environment of skill shortages. RailCorp accepted all the report's recommendations and I am encouraged that the written responses from RailCorp indicate that it has embraced the recommendations and that progress is made. One point I would stress is that the Government intends to significantly increase public transport usage over the next 10 years while maintaining on-time running. If this is the case the signalling system will be critical to creating both the capacity and the demand needed to achieve this. That is why our second recommendation is so critical in relation to determining the signalling system RailCorp needs to meet the Government's 2016 patronage target. I would be happy to answer any questions.

Mr ANTHONY ROBERTS: I address a question to Mr Mason, CEO of RailCorp, in respect to the outcome of RailCorp's review of its incident response strategy and speaking on behalf of a lot of frustrated commuters in New South Wales. I notice that the Auditor-General was concerned that the strategy for deploying rapid response staff to repair signal failures was not based on a systematic risk assessment, which meant that RailCorp could not demonstrate that the right people were in the right locations at the right time. I notice that RailCorp informed this Committee that the latest review indicated signalling response is properly adjusted for risk. My two questions are: Can you outline how the review was conducted and what was done in response to that review and, second, how often are such reviews conducted? Do you want me to repeat the final part of that question?

Mr MASON: That would be good.

Mr ANTHONY ROBERTS: Could you outline how the review was conducted and what was done in response, and, second, how often are such reviews conducted?

Mr MASON: I will ask John Minchin to answer some of the question, if that is okay with the Chair, but in terms of the review and how it is done, clearly we know where our signal failures have been over the last few years and we look at that in terms of where we should put our response teams because there is limited resource, so whether it be a signalling response team or an operational response team as well in terms of train maintenance and things like that, we review those things on a regular basis. We do some specific reviews. Any time there is a major change, say, for instance, World Youth Day, we review there, where the patronage is going to be. Prior to a timetable change, we also review any sets of points that may be used more often in the new timetable than in the old timetable; we would potentially move our resources if that was the case, so it is on a regular basis we have done a review and I will ask John, if that is okay with the Chair, to add some more details to that.

Mr MINCHIN: The additional work we do is look at our historical data of response time because we have all that information on the database for all the incidents we have occurring, whether it is signalling or all the engineering type responses that we do. We use that to chart against the impact of that delay on the punctuality of the trains, so it could be that we would tolerate a 15-minute response time in one area versus say in the city where we need a response time of five minutes. So that is factored in. At the beginning of the year we completed a review looking at the historical data. For timetable changes there is information we get from the people that create the timetable on changes to junction operation, and that is the biggest impact from a signalling point of view. We get the amount of movements that points get and the changes. So you actually have trains terminating at different locations or crossing to other tracks and things like this. With that change in usage we adjust our response and that could be changing the location of the response team, or changing the span of time that they operate because we have 24-hour operation teams and we have shorter ones during the day to cover the peak hours, so we have adjusted that. In the last response we adjusted a team that used to be at Lindfield and it is now Chatswood. That is one of the changes we have made with that team and it has also gone from what we call two shifts, in other words spanning during the daylight hours to a 24-hour operation. I hope that answers your question.

CHAIR: The Auditor-General's report recommends that the signalling system needs to meet the Government's 2016 patronage targets as soon as possible. You provided a draft document entitled "Asset Strategy—Signalling and controlling system strategy for 2009 to 2040". Overlaid with that is the State Plan, which stipulates that, by 2016, 76 per cent of peak hour trips to the city should be made by public transport and 23 per cent of trips within the Sydney metro should be on public transport. Your draft strategy does not mention the State Plan nor does it discuss RailCorp's share of responsibilities for meeting State Plan targets. RailCorp's asset strategy does not mention levels of present performance and projected outcomes of performance as it continues. What is RailCorp's responsibility for meeting targets set in the State Plan?

Mr MASON: We have a plan which reflects the State Plan's objectives of 25 per cent. The capacity of the railways is dictated by a number of things—the number of trains that we have, the speed of the trains which is dictated by the power supplies as well, but also signalling capacity of some of the configuration of the railways. So it is the total asset plan that will actually drive our delivery of the 2016 targets which is part of our growth targets. This is just one specific asset part of that. Picking up your comment, we have not referred to the State Plan because it is actually at a higher level in terms of our own capacity planning.

CHAIR: Where do you refer to the State Plan?

Mr MASON: It will be in our corporate plan.

CHAIR: Are your measures consistent with the targets set in the State Plan? Do they exceed or are they the same?

Mr MASON: We certainly aim to achieve those. Clearly our patronage over the last three years went up by 5 per cent, by 5 per cent and then by 2.9 per cent over the past year. So we are ahead of our growth curve but certainly we realise we have still got more work to be done. A lot of the work for the next year will involve the timetable for opening up the Epping-Chatswood line into being an integrated railway from 11 October this year. The completion of the Cronulla duplication next year will also increase our patronage and there will be a new timetable to reflect that integration of that new infrastructure.

CHAIR: Do you have a 30-year horizon asset strategy?

Mr MASON: We have a draft asset strategy. We are working on the 2040 plan at the moment, recognising that the next trains we buy will still be around in 2040. So that is probably our critical asset as to what is our next investment plan for rolling stock, and also for the extra signalling capacity which will probably come through the automatic train protection route.

CHAIR: Do you say the signalling controlling system strategy sets out that it will be able to cope with the purchase of new rolling stock? Do you say your plan will include all new products? I cannot see timetables or gateways through this process, which will achieve certain figures within certain periods. Maybe that is addressed by your corporate plan but certainly the draft asset plan—obviously by the nature of the document—does not. I have the impression that you are happy to meet all the recommendations of the Auditor-General—signalling is a critical part of that process—but I do not see timeframes or commitments. You say you will adopt it but you do not say by how much or by when.

Mr MASON: There are probably two layers before I ask John to answer some of the technical stuff with the signalling. There is our total asset management plan, which is our 10-year plan, which obviously gets towards 2020, which is submitted on an annual basis. The first revision is in at the moment and there will be a second revision by October. That talks about the total asset management plan for both maintenance and buying new equipment, whether it be signalling systems or rolling stock, station refurbishments and things like that. So that covers up to 2019 but there is still some more work to be done on the 2040 plan, which is really the next generation. But John will be happy to talk to you about the signalling control structure.

Mr MINCHIN: The strategy deals with the technical aspects of achievement but not the physical building. So the total management plan and our annual works program have all the construction works that we are undertaking at the moment. Mr Mason mentioned the work at Cronulla. We are actually upgrading the signalling system at Sutherland to handle that upgrade to a new system. It is a modern computer system. We are also upgrading the systems at Lidcombe and Homebush. Currently going through the Government is a proposal for a complete corridor rebuild, which is mainly about the signalling system between Auburn and Granville, including Parramatta Road and the level crossing, and changing the whole signalling system in that area, which

is critical to the new Waratah trains and their ability to get into the network. Those projects are all in those documents. There are a lot of signalling projects. The TIDC is helping us with those projects, as well as ourselves internally, and the alliance that Mr Mason referred to in his opening speech, Nova Rail, will be building the Auburn-Granville work and is also doing some work on the power supply upgrade.

CHAIR: So you have an organic approach and as new projects arise you put the new signalling processes into them. Do you have a document that says what your signalling demands are as capacity grows? Are there documents that show what is required with timetables, commitments—it does not have to be a financial commitment—and benchmarks? These are our needs and this is our plan? Alternatively, do you deal with it on a case-by-case basis?

Mr MASON: We have a document, which is the total asset management plan.

Mr MINCHIN: The document we sent you was to do with the technical aspects of how the signalling system should operate, not that we need a new system to run so many trains an hour.

CHAIR: Is that a public or an internal document?

Mr MASON: It is internal with the Government at the moment. It is in draft at the moment.

Mr PETER DRAPER: You and the Auditor-General mentioned benchmarking. RailCorp's submission states that the organisation joined the CoMET Nova international benchmarking community in 2007. Will you advise the committee what the membership of that benchmarking community involves? What has RailCorp learnt from being a part of it and are there any aspects in which RailCorp excels or could improve? What changes are being made as a result of the benchmarking?

Mr MASON: CoMET Nova is a group which was probably set up in the 1990s. When I was with London Underground we were one of the founding members for the CoMET group and that is a Committee of Metros—the big people movers around the world. The second phase of CoMET Nova is a Nova group, which are traditionally called the newer metros but, in fact, are also the smaller ones. In 2007 we were lucky enough to be elected to the Nova group. CoMET includes Moscow, Paris, London, New York. Nova includes Rio, Bangkok, Newcastle in the United Kingdom, Milan and various others. It is a totally confidential benchmarking group that are not allowed to share any results with other metros. It is a common benchmarking group where we have to agree the definitions first, and clearly we have different definitions for an "incident" from what Hong Kong has. They talk about two-minute delays whereas we talk about five-minute delays. So there is that difference in trying to get the right level of data—agreed data. We then share that and it is actually produced by one of the London universities as the controller of the data.

Now that has looked at rolling stock reliability, signalling reliability, various benchmarks in terms of the various aspects of the railway, staffing ratios and things like that. We have that as an annual review. Specifically, we can ask other questions of the other metros in our groups which will be totally confidential. So, for instance, we asked all the other metros about how they deal with sick passengers on trains or how they would deal with the long dwell times on platforms, what techniques they use for tweaking the timetable or the operation of the railway. So we have got annual reviews and also we have specific questions which we can ask them and they come back within 10 days. So certainly lessons are learnt. The rolling stock engineers have been to the Hong Kong Metro and had actually had a benchmark group there and talked about our door failures and our successes with changing the door motors. We went on a dwell time workshop in London reviewing how we manage the platform with staff or with technology on old systems. Certainly on the signalling we would have been talking about the six-sigma project, which we have been doing here. So there are a lot of lessons learnt. We are still learning in terms of the data and understanding how other people do it. It is a very rich source of data for us.

Mr PETER DRAPER: With the Epping to Chatswood line coming into being and a lot of proposals for further expansion of the network, will there be pressure on RailCorp to divert resources away from existing signalling maintenance into new areas of the infrastructure? Are there plans to cope with that possible pressure?

Mr MASON: In answer to your first question, there is always pressure to divert resources to building new railways but, from my own experience in London where assets were sweated and reliability fell, once you stop maintaining assets of this type it takes a long, long time to pick them up. So we certainly would be very hesitant to reduce our maintenance cycle unless there was an asset plan to address the sort of inspection

regimedifferently. Picking up on your second point: is there a plan to address it? As I said in my opening speech, there is a shortage worldwide resource for signalling engineers and we recognise that as part of the Auditor-General's report and probably before that. But we have had a major focus over the last three years about what we call the pipeline of resource by getting graduates in, interns in, apprentices in—there are over 300 apprentices in RailCorp at the moment.

CHAIR: Do you have more engineers now than you did when this report was prepared?

Mr MASON: We certainly have. In terms of electrical and signal apprentices we have 21 in the fourth year, we have 27 in the third year, 9 in the second year and 17 in the first year. We are on an international recruitment drive in Singapore, Hong Kong, Europe and London, and we have managed to attract people to Australia to do that on visas, to come and help us with that. But also in the last two years we have signed up two major alliances for track, which I think is about \$50 million per annum, and also, as John mentioned, for the Nova Rail alliance, which was signed in December last year to help us with our power supplies and signals as well. So that is using as much as possible the private sector as well as growing our own. Also working with universities to try and get a chair for universities. We have been doing some work with Wollongong University over a long time and we are also working on their SMART technology to support them to support us in the long-term.

CHAIR: In round figures what would be the increase in your engineers from 2004 to now?

Mr MINCHIN: I would say probably 10 that we have increased straight, because numbers go up and down overall. We have also got 28 interns who are working with us.

CHAIR: That you did not have before?

Mr MINCHIN: No, we were not using that process before. They will be getting the opportunity to understand what the wonderful world of signalling is all about and get interested in it and want to work in that area.

Mr PETER DRAPER: You mentioned the number of apprentices in years one, two, three and four. One of those years only had nine. Was there a reason for that in comparison to the other years?

Mr MINCHIN: Yes. In the second year there is only nine signal-electrical apprentices. I think we had a problem getting suitable people in that year. We made up for it in the subsequent recruitment program. If you run a little bit late we are competing with our other colleagues in Sydney for the same people, and that was the cause of that problem.

Mr ANTHONY ROBERTS: You mentioned that we are benchmarking ourselves under this new CoMET Nova international benchmarking community that has been created. Delays, as we all know, are a major concern to the people of Sydney. What is the average delay due to signal failure for a train over, let us say, whatever period you have got for the past year? I would like to follow that up with a comparison to the average delay for CoMET Nova due to signal failure?

Mr MASON: We have a number here for infrastructure which is track as well, but in the last four years the number of trains delayed per incident—one of the ratios that we use—has come down from 6.1 to 4.2, so about a 30 per cent reduction in the number of trains that have been delayed.

Mr ANTHONY ROBERTS: But time wise or response wise?

Mr MASON: I am afraid we have not got that. We do work on customer delay minutes but it is a huge piece of work that we still have not done. On that we are conferring with our colleagues in the Independent Transport Safety and Reliability Regulator [ITSRR].

Mr ANTHONY ROBERTS: Does CoMET Nova have an average delay time due to signal failure? Has that been recorded overseas?

Mr MASON: It will be recorded but there is this bit about a mismatch of data at the moment. They would respond by saying they classify a delay as being two minutes. So they measure a two-minute delay and we measure a five-minute delay. So we are still working and sifting through that information. I will be very happy to share that with the Committee once I have got some more information.

CHAIR: Does anyone else have a five-minute delay?

Mr MASON: Oh yes. It is an international benchmark. The Independent Transport Safety and Reliability Regulator recommended that we move to five minutes back in 2004. Prior to that we were four minutes. But around Australia, and certainly around Europe, that was the international benchmark that they recommended we move to.

Mr JOHN TURNER: You said the expected life of the new rolling stock is to at least 2040. Will the signalling still be compatible with such stock by 2040 or will the signalling technology have moved on to the old rolling stock? If so, will that be an impediment to on-time running come 2040 or can the two exist side by side? I note from the report that you gave us on the asset strategy that there are control systems for at least 20 years to go into trains. Will the old rolling stock and the new technology remain compatible or will they be at odds?

Mr MASON: I will answer the first bit really. The new rolling stock, or the Waratah trains which are due for late 2010, has been designed to implement automatic train protection. So we have designed to facilitate the implementation of automatic train protection, which is our next phase of signalling control. Other trains in our system such as the Millenniums and our suburban cars can be fitted but the very older trains will probably be out of circulation by the time automatic train protection comes into place. So we are building in the facility to build in the capability in the new trains. Certainly automatic train protection will have a long life. Our existing signalling system goes back to the early 1900s in certain places so clearly you can keep maintaining the old signalling system. John might want to add something more?

Mr MINCHIN: Just with the older rolling stock, we did a trial in the Blue Mountains with the automatic train protection system to show that it works. We also fitted the inner-city trains, which range from 30-odd years old, and we did not have any trouble retrofitting those with the new technology. So typically with those sorts of issues of compatibility we have to retrofit but there is room on the trains to do that.

Mr JOHN TURNER: You speak about train protection and we have been talking about the need to increase train timetables or train frequencies to meet with the State Plan. Are they two separate things? Is train protection the protection of life and limb as against the frequency of trains? If so, the question still remains: will your signalling outstrip the trains?

Mr MINCHIN: There are automatic train protection systems at multiple levels. The first level we will be introducing does not increase the amount of trains we can run but it makes it safer for the trains. The Waterfall incident, for example, would not have occurred with automatic train protection. The other advantage, when we get all the fleet fitted, is that we can remove the train stops we currently use and when we redesign the signalling system we can actually close the signals up a bit more, which means we can fit a little bit extra capacity. The next level that is being introduced in Europe—going to level one is the path to go to the next level, so the trains are fitted with all the equipment you need and you just have to change a few extra bits and pieces, which is level two. Level two uses constant updates to the train and you can actually fit as many trains as feasible in that case and that will allow us to increase the capacity using that particular signalling system.

Mr JOHN TURNER: When would you expect to level two to be implemented?

Mr MINCHIN: I do not think we will get it implemented in any—it may be on certain lines within the next 8 to 10 years but not all the network.

CHAIR: You would not do it between Engadine and Loftus I imagine but in the peak, Parramatta, City Circle—

Mr MASON: Phase one is actually a safety system and we do not have these train stops in the outer city areas. The Blue Mountains has no train protection so we would probably focus on that bit first for safety reasons but certainly the City Circle is an area we would look at for this level two. Level two is facilitated by the digital train radio, which we are implementing at the moment—we are at the tender stage of that and evaluating the tenders.

Mr JOHN TURNER: So the time level that you mentioned of eight or nine years would fit you into the 2016 category?

Mr MINCHIN: The commencement of that on some lines. I think the lines we are looking at are those lines without enough capacity. One of the ones we are looking at is the area between Erskineville and Sydenham but we have not formed a view yet. It has not been confirmed that that is a good approach yet.

Mr MASON: Nor has it formally been approved yet. But automatic train protection level one is currently part of our plan with the Government.

Mr JOHN TURNER: How does that timetabling process fit in with recommendation No. 2 of the Auditor-General's report, which is to determine the signalling system it needs to meet the Government's 2016 patronage targets as soon as possible and document by the end of 2008 how it intends to get there? Is that interrelated to that recommendation?

Mr MASON: It is an overlay essentially. Level one is currently with the Government in terms of funding. Level two we are putting as part of our 2040 plan and that will be going through the right levels of authority as we go through the next year or so to get the agreements and strategy.

CHAIR: That comes back to the critical issue for the Committee. My view of the Auditors-General's recommendations is that you appear to have accepted all of them, and from the Auditor-General's opening remarks that seems consistent. But the concern is in recommendation No. 2, which says that you need to determine the signalling system you need to meet the Government's platform level targets and, by the end of 2008, document how you intend to get there. You have said you have accepted the recommendation but we have not seen any evidence. You are saying there is an internal document that you have which comes to terms with that but there is not a specific—of all the recommendations I guess that is the one that the Committee is most concerned about. You say you are doing it but we have not seen the evidence of it. Perhaps you could give us more confidence around that. Given that you accept the recommendation do you hope to have that soon and will it be public?

Mr MASON: As I said, that is the Total Asset Management Plan, which is the 10-year plan that is with the Government at the moment for the building of new infrastructure as well as the signalling system.

CHAIR: When you say with "the Government" do you mean with the Executive?

Mr MASON: The total asset management plan submitted to my Minister to go to Cabinet.

Mr ANTHONY ROBERTS: So there is one but we have not seen it yet and we are not sure when we are going to see it?

Mr MASON: It is a draft as of May-June this year; it gets reiterated every six months as a total asset management plan.

Mr ANTHONY ROBERTS: The ability of people at the moment to trigger the signalling to stop trains is certainly a concern. We see these graffiti vandals that stop trains and utilise that period to vandalise trains. The Committee would like to know what sort of safeguards the new signalling system has to stop that occurring, not only from a graffiti vandalism point of view but a pure safety point of view?

Mr MASON: Once the automatic train protection system is fully implemented the train stops, which are the trackside piece of equipment, can be removed. That is the ultimate utopia for us—to remove the trackside signalling system, therefore it is all automated. Once that is in place, those train stops will go and then the vandals will have to find a new way.

Mr GRANT McBRIDE: When you talk about upgrading the systems, is it hard copper, optic fibre, wireless, or a combination of these? If so, what direction are you taking in establishing a system that combines all of those?

Mr MINCHIN: The automatic train protection system level one is computers and copper and fibre. Then level two is all, including wireless. So it is all systems. We are increasing our use of fibre, which improves our performance in lightning seasons. We have also changed some of our power supply standards, which has helped reduce damage to the equipment.

Mr GRANT McBRIDE: Where are you moving at the moment—to wireless?

Mr MINCHIN: That is in the long term, probably as far as 2016 it will not be in place, it will not be in use. In Europe on the specialist high-speed lines they do use it. But I do not think there is anybody that has retrofitted an existing railway yet with level two. But level one certainly, as Mr Mason pointed out, is currently being proposed and we will implement that. That is the steppingstone.

Mr GRANT McBRIDE: In the greater metropolitan system what is the percentage of copper and optic fibre? Where are you at the moment?

Mr MINCHIN: At the moment it is probably 95 per cent copper and 5 per cent fibre for signalling. We use a lot of fibre for communications and our CCTV networks are based on a fibre network. Our new systems, like the one at Epping-Chatswood, use fibre connections. It has got fibre routers and things like that, fibre multiplexes and all that. Unfortunately my training was on copper, so my lack of understanding of fibre is getting tested. We will increasingly use wireless, but as I said before that probably is in 10 years' time. The implementation of the digital train radio system is key to replacing the existing train radio system, which gives us the capability of being able to add some computer systems to it and we can go to level two. That will increase and that will change the skill mix requirement.

Mr GRANT McBRIDE: You talk about increasing the capacity. Can you make the Central Coast a priority?

CHAIR: We are now out of time. The Committee thanks you for your attendance this morning. We acknowledge the importance of signalling in relation to the reliability of the network. We are very pleased with the results you identified earlier, that is, 95 per cent on-time running. The Committee congratulates your organisation on that achievement. In relation to the process of a follow-up inquiry to the Auditor-General's report, do you have any comments? Do you consider it is appropriate to bring you back 12 months later to check that you have done the things you said you would?

Mr MASON: Certainly it is very valuable for us to be working with the Auditor-General and yourselves to make sure we are on track to meet the targets you have clearly identified. We are pleased that the results are showing improvements both in passengers and reliability. We know that we have to make a leap almost in technology for greater capacity in the 2040 plan.

CHAIR: Do you have any final comments?

Mr ACHTERSTRAAT: In relation to the benchmarking issue, it is important as an internal management tool to be able to benchmark and to be able to learn from other areas. There is also a benefit for transparency to be able to publish some of the material. I do accept that a lot of the material is given in confidence and if it is published then it will not be provided. But I would encourage the organisers of the benchmarking to maybe come up with an industry average that does not identify the rail networks. So each rail network would be able to compare with the industry average. I also thank RailCorp for their professional approach to the whole audit.

CHAIR: Thank you, gentlemen.

(The witnesses withdrew)

(Short adjournment)