

Chapter 3

Faults and maintenance

3.1 In the previous chapter the Committee examined the capacity of the network to deliver services and some of the impediments to the delivery of services which result from the design of the network and the equipment used in the network. In this chapter the Committee examines network faults and maintenance issues which impact on the ability of the network to provide reliable services. Customers whose services are affected by faults are covered by the Customer Service Guarantee which is discussed in Chapter 5.

Network faults

3.2 The Committee received considerable evidence about outages due to decay in the network and poor service in repairing faults.¹ One of the issues identified related to the time taken to repair faults in rural areas. Customers in these areas felt that it took too long to have faults repaired and that the time taken to repair faults in rural areas compared unfavourably with the time required in urban areas. For example:

Telstra service calls take an average of 2 weeks. Is this the same delay as experienced in urban areas?²

3.3 The reason for these delays was often felt to be related to the reduction in the level of staffing in rural areas and the consequent need for service staff to travel hundreds of kilometres to repair faults. This was described as being both inefficient and time consuming:

.... With the partial sale of Telstra, there was a concomitant reduction in the level of staffing, and therefore service to that infrastructure. By this I refer to the reduction in local service staff to attend to problems. There have been many instances where servicemen have been sent from hundreds of kilometres away to service customers, resulting in delays due to distance travelled, and lack of knowledge of localities. This is not only inefficient, but unsatisfactory to customers.³

1 Shire of Nannup, Submission 16; Ms Jennie George MP, Submission 26; the Hon Dick Adams MP, Submission 52.

2 Break O'Day Council, Submission 11.

3 Ms Roslyn Joseph, Submission 32.

Residents of Hay are also faced with delays in having new phones connected or other service changes with contractors having to come to Hay from other regional centres.⁴

3.4 The standard of repairs was also criticised by many witnesses. Ms Jill White, for example, related that after the 1998 flood in the Katherine area:

During the flood the phone system of course failed. Soon after the flood when the service was restored the Telstra joint was removed from the pit at the front of our house and hung on the fence. It is still there.⁵

3.5 Perhaps unsurprisingly, Ms White went on to relate that ‘the service has an intermittent fault which is worse during wet weather.’⁶ Other submissions also referred to repaired wires being left hanging on fences.⁷

3.6 Submissions from the various branches of the CEPU referred to cables with large numbers of faulty pairs and temporary repairs, and to the reduction in staff numbers by Telstra.⁸ One particular concern related to the failure to follow up temporary repairs with permanent repair work:

As the union is advised, there are countless instances where “first in” cable repairs have not been followed up by properly engineered permanent remedial action. We are regaled by accounts of cable joints in plastic bags often for months if not years. We are told of temporary cabling, above the ground which has been in place for extended periods of time without any likelihood of replacement or planned upgrade.⁹

3.7 In relation to the use of plastic bags, Telstra advised the Committee that:

From time to time technicians revert to unorthodox practices to protect and restore services as a temporary measure. However, Telstra firmly believes that this practice is not widespread as it is not standard company practice and staff have been instructed not to use these items.

Telstra does not encourage the use of non-standard materials. However Telstra’s field staff are focussed on doing the job as quickly – and as completely – as possible. It is therefore possible that if a field service

4 Hay Shire Council, Submission 17.

5 Ms Jill White, Submission 25.

6 *ibid.*

7 Michelle O’Byrne MP, Submission 140; Carol Richard, Submission 46.

8 Communications, Electrical and Plumbing Union, Tasmanian Communications Branches, Submission 133.

9 *ibid.*, p 6.

person does not have appropriate equipment available to them they may use other materials at hand as a temporary measure.

Telstra field staff regularly update their equipment via depot visits. If the use of a plastic bag or similar temporary material is identified a permanent fix is completed as soon as practical.¹⁰

3.8 Telstra also denied assertions that it has been concentrating on temporary repairs to keep services operating in the short term rather than fully fixing faults:

I would certainly refute that claim. A clear policy of ours is: fix it first time, fix it in a quality way and fix it once so that it stays fixed. Prior to the network reliability framework we had a lot of our own internal measures which our field staff, team leaders and managers were accountable for in relation to rereported faults.¹¹

3.9 The Boulding case discussed in Chapter 2 and Appendix 5 also highlighted deficiencies in Telstra's fault management processes. In its report the ACA found that:

- information sharing between Telstra's customer management and fault management systems is deficient;
- important fault diagnosis information that was available was either not appreciated or not effectively used by technical staff at the time of the first fault repair;
- the failure to identify and record the root cause of the first fault extended the period of restoration of the Boulding family's telephone services;
- the absence of system information about key CAN components extended fault repair activity related to the second fault;
- the multiple faults on the services over 26 January to 7 February 2002, although recorded in Telstra's systems, did not accelerate repairs to these services; and
- technical information for this CAN suggests that there is a need for Telstra to ensure that its CAN enhancement program target areas where network performance is low.¹²

10 Telstra, Submission 107b.

11 Mr Anthony Rix, Head, Service Advantage, Telstra, Official Committee Hansard, 7 August 2003, p 959.

12 Australian Communications Authority, Investigation into the provision and maintenance of telephone services to the Boulding family in Kergunyah, north-eastern Victoria, March 2002, p 6.

3.10 In response to an internally commissioned report into the Boulding case, Telstra announced a number of responses which would affect its overall fault management system. These included improving the availability of information to relevant staff, bringing forward improvements to the rural network, and establishing a system for ensuring that longstanding and complete fault repair work is reviewed daily by designated senior managers.¹³

3.11 The deterioration in the Telstra network has been blamed for major disruptions to services. In its submission the Tasmanian Communications Branch of the CEPU stated that on one occasion a rainfall of only 3.2 millimetres in Hobart led to water damage which resulted in 300 to 400 customers losing their telephone services.¹⁴

3.12 Some witnesses to the Committee's inquiry acknowledged that improvements have been made in service levels, particularly since Telstra Country Wide was established.¹⁵

Recent initiatives in the provision of services in the telecommunications network by both Telstra and the federal government are to be commended. There has been a noticeable improvement in the level of response to requests for services since the establishment of Telstra Countrywide.¹⁶

Telstra staff cuts

3.13 In evidence to the Committee the CEPU raised concerns about a number of specific issues which it considered were contributing to the deterioration of the Telstra CAN. One reason given by the CEPU for the deterioration of the network was the relentless reduction in the number of technical and line staff over recent years:

The levels of field staff in Brisbane Metro have been reduced by 400 over the last five years from almost 1200 Technical and Lines staff to just over 700 currently, a drop of 40%. The Country staff has been downsized by similar numbers.

Telstra is currently going through a redundancy program and reducing by up to 10% in the rural, regional and remote areas of Qld and are planning to reduce by some 150 staff in the Brisbane area, two or three years worth in one chop!!.

Field staff currently and for some time, have been working record amounts of overtime on weekends and after normal hours and contractors are being

13 Telstra, Media Release, 14 March 2002.

14 Communications, Electrical and Plumbing Union, Tasmanian Communications Branch, Submission 133, p 6.

15 Guyra Shire Council, Submission 15; District Council of Grant, Submission 38.

16 Ms Roslyn Joseph, Submission 32.

given work in increasing levels, why then are redundancy numbers so high when the work is obviously still there to do? (NB. All figures used have been checked as closely as possible but should only be used as an approximation.)¹⁷

3.14 During public hearings by the Environment, Communications, Information Technology and the Arts Legislation Committee in relation to the Telstra (Transition to Full Private Ownership) Bill 2003 the NSW branch of the CEPU was asked to provide further information about employment levels in the telecommunications industry:

The Table below represents the CEPU's best estimation of staff numbers in the major carriers at three points of time:

1. Prior to the introduction of (limited) carrier competition
2. Prior to the commencement of the job reduction programme that accompanied partial privatisation of Telstra and prior to full market liberalisation
3. At June 2003¹⁸

Company	Staff 1990	Staff 1996	Staff 2003
Telstra	86,728	76,522	37,169
OTC	3,000 (est)	n/a	n/a
Optus	n/a	4,500 (est)	8,609
Vodafone	n/a	1,000 (est)	1,742
TCNZ/AAPT	n/a	400 (est)	1,650
Hutchison	n/a	n/a	1500 (est)
Other carriers	n/a	n/a	3,000 (est)
TOTAL	89,782	82,422	53,670

3.15 The CEPU noted that the fall in staff numbers has been accompanied by growth in contractor employment but estimated that the current number of staff still falls

17 Communications, Electrical and Plumbing Union, Queensland Branch, Submission 139.

18 Communications, Electrical and Plumbing Union, NSW Branch, Submission 134a to the Senate Environment, Communications, Information Technology and the Arts Legislation Committee inquiry into the Provisions of the Telstra (Transition to Full Private Ownership) Bill 2003.

below the 1990 and 1996 figures. While improved efficiency in the industry could be expected to lead to a fall in the number of staff employed, it might have been expected that the growth of the industry over the same period would have largely counterbalanced that effect. The evidence presented by the CEPU suggests that staff numbers have been reduced to the point where there may be insufficient staff to properly maintain the network.

Seal the CAN

3.16 Another area of concern raised by the CEPU related to possible deterioration of cables in the Telstra network as a result of an unsuccessful program to seal these cables from moisture damage. The CEPU outlined this issue in its submission:

In the mid-1990s Telstra embarked on a programme to “seal” the Customer Access Network i.e. to surround joints with a (supposedly) protective gel

- a) to help prevent moisture entering the network at these points
- b) to prevent both the need for and adverse consequences of constant intervention in the network at these same points.

The initiative was intended to reduce the fault rate and hence allow ongoing labour shedding without jeopardising network reliability. The effect has been the opposite.

It has now become apparent that the gel used by Telstra reacts with moisture to break down cable insulation. Moisture is always likely to be present in underground cable to some degree, as over time even modern sheathing is permeable. Moreover the older the cable, the more likelihood there is of leaks occurring along it (i.e. at places other than the joints). This will result in increased fault levels not only at the joints but at other points of the network as the gel seeps along the cables and encounters moisture further along the cable run. The problem is being exacerbated by the air pressure maintenance difficulties discussed below.

Use of the product has been discontinued, but large amounts of cable are now being exposed to corrosion as a result of the programme. Diagnosis of the resulting faults is complicated by the facts that

- (a) they are not necessarily at the joints and
- (b) as the fault arises from a chemical reaction rather than a mechanical fault/failure, its location may not be easily identifiable.

The union believes that problems arising from the “Seal the CAN” project are widespread. However they are particularly likely to affect country areas

as these were targeted by the programme to address higher rural fault rates.¹⁹

3.17 During the Committee's public hearings, witnesses elaborated on the effects of this situation on the reliability of the CAN. The Committee heard evidence that faults ascribed by Telstra to storm damage can often be traced to this problem:

One of the things that the management of Telstra are pushing quite strongly is that the problems were caused purely by lightning. It is the view of my members, and the union, that the major cause of the problems was not the lightning but the state of the network in particular, the problems that have been caused by the so-called 'Seal the CAN' process that Telstra went through some years ago. The minute that there is a bit of rain or bad weather the faults come in thick and fast. The management of Telstra will indicate that they have never seen storms like it or so many faults come in and that it was because the storm was so severe. It is my belief and the belief of my members who were out there fixing these faults that, although the storm was a fairly significant one, the root cause behind the numbers of faults that they got which were record levels, and there are no records in the past that go anywhere near them was the lack of upkeep of the network and the problems caused by the flawed 'Seal the CAN' episode.²⁰

It is not always easy to find the fault in these circumstances. In fact, it is quite a worry in Northern Australia where you have, obviously, wet and dry seasons. The fear is that in the wet the potential for a large number of faults to occur is extremely high. We are particularly lucky, in my view, that we are currently undergoing a drought. It is hard to estimate what the long-term effect of the gel might be. I think that is a 'suck it and see', to be quite frank. I know Telstra has put a bright light on it and suggested that all is well, but our members have a great deal of fear about the long-term impacts of seal the CAN. Certainly, it is unfortunate that the whole process was not further researched before it was rolled out and people were forced to seal every joint they opened. There are even suggestions from some circles that some of the contractors that sealed the CAN actually watered down the gel.²¹

3.18 Telstra responded to these concerns during questioning by the Committee. It outlined the steps it had taken to remedy problems arising from the 'seal the CAN' program:

19 Communications, Electrical and Plumbing Union, Submission 96, p 19.

20 Mr Paul Kelly, State Secretary, Communications Division, Communications, Electrical and Plumbing Union, Western Australia Branch, Official Committee Hansard, 9 May 2003, p 638.

21 Mr Gerry Kandelaars, Branch Secretary, Telecommunications and Services Branch (South Australia/Northern Territory), Communications, Electrical and Plumbing Union, Official Committee Hansard, 26 November 2002.

With regards to 'seal the CAN', prior to May 2003, during the 2002-03 financial year there was a centrally managed project, managing and monitoring a portion of the total gel remediation work, which we have talked about at length at other hearings. This project reported approximately \$4.6 million of expenditure on gel remediation. That in itself does not tell the whole picture, because that is the centrally managed and maintained project. As part of the work of technical servicemen and women on a daily basis, they will be remediating joints and cable joints where they see fit, to provide the quality of service that is required. That is not necessarily part of this program but it goes on continually. Under the rehabilitation program, gel joints are fixed as part of the network plant project and we are targeting fixing poorly performing plant, the focus being providing maximum customer benefit for that investment.²²

We also have stopped the process of sealing joints with the use of gel, and there is no plan to replace the gel joints across the country. As the problems are identified reactively and proactively, so we selectively replace these joints when they come up and we believe that they will become customer affecting.²³

3.19 Telstra also indicated that it is continually looking to improve work practices and technologies in relation to the sealing of joints in cables.²⁴ In response to one claim made by a CEPU witness, Telstra said that it had no evidence that some contractors had watered down the gel.

3.20 The number of cables in the Telstra network which had been sealed with gel is not clear although one witness suggested that 100,000 joints are affected. The number of these joints which represent a problem in the Telstra network was the subject of some disagreement between the witnesses. The Committee notes that in the Estens report Telstra was reported as having advised that in almost all joints where it had been used, the gel continued to be an effective sealant.²⁵ When questioned about this issue during estimates hearings, and by this Committee during its hearings, Telstra maintained that:

22 Mr Anthony Rix, Head, Service Advantage, Telstra, Official Committee Hansard, 7 August 2003, p. 958

23 *ibid.*

24 *ibid.*, p 946.

25 Regional Telecommunication Inquiry, *Connecting Regional Australia*, p 77.

We understand - this will not be exact - that in about 97 per cent of cases that is true. But clearly there are some areas, particularly where there are high levels of humidity, where there are some concerns about it.²⁶

The vast majority of cases where the gel joints are in place continue to work well. Telstra still estimates that this problem contributes to approximately three per cent of all faults in the network, and that is based on the fault codes that we receive.²⁷

3.21 Evidence from the CEPU suggested that the problems are much more widespread:

I am sure that Telstra are being optimistic. One would expect them to apply a bit of optimism to the problem. The problem is that this is not a short-term thing. This will go on in their network, potentially, while any of those gel-filled joints exist. It is not a simple case of identifying these joints to repair and fix; they essentially tried to seal 100 per cent of their CAN. It is almost impossible to quantify. It will take time to get a better assessment of what the long-term impacts are likely to be, in my view. In fact, they are lucky at this point in time that it has been a very dry season. It is hard to base your assessment on this year, to be quite frank. The real worry is that the fault in these types of joints is not obvious. You can go to a joint and not see a problem, because you do not actually see the physical corrosion straightaway. You will find the problems more through customer reports than through any other mechanism. It is very hard to quantify what the long-term impacts might be, as I said.²⁸

The union believes there are over 100,000 joints in this country that have sealant gel in them. Most of these, once they have water in them, are breaking down and affecting the customer, and massive amounts of work are there to be done.²⁹

26 Mr Bill Scales, General Manager, Corporate and Human Resources, Telstra, Committee Hansard, Senate Environment, Communications, Information Technology and the Arts Legislation Committee, 20 November 2002, p 17.

27 Mr Anthony Rix, Head, Service Advantage, Telstra, Proof Committee Hansard, 7 August 2003, p 958.

28 Mr Gerry Kandelaars, Branch Secretary, Telecommunications and Services Branch (South Australia/Northern Territory, Communications, Electrical and Plumbing Union, Committee Hansard, 26 November 2002. p 78.

29 Mr Shane Murphy, Branch Organiser, New South Wales Postal and Telecommunications Branch, Communications, Electrical and Plumbing Union, Committee Hansard, Senate Environment, Communications, Information Technology and the Arts Legislation Committee inquiry into the provisions of the Telstra (Transition to Full Private Ownership) Bill 2003, 1 October 2003, p 20.

Air pressure maintenance

3.22 Another method which is used to protect copper telecommunications cabling from the effects of moisture is the use of air under pressure. Concerns have also been raised about the maintenance of these cables. The CEPU outlined its concerns on this issue in its submission:

The CEPU estimates that some 70-80% of main cables are air-filled.

The air for the cables comes from a compressor in the exchange and/or compressed air bottles which can be deployed locally (e.g. in a manhole) in the event of a leak. (Use of bottles should be a short-term remedial action only.) A system of alarms is designed to alert staff to any fall in cable air pressure.

The maintenance of cable air pressure is central to the protection of cables that are not jelly-filled. It also serves a diagnostic purpose, as a fall in air pressure may indicate a leak at a joint or a hole/break in the cable.

The maintenance of air pressure was until recently a specialised function within Telstra (Telecom/PMG). However, the section responsible for responding to air pressure alarms (the Cable Pressure Alarms Systems [CPAS] group) was disbanded in 2000-2001 and the function contracted to Network Design and Construction (NDC), Telstra's stand-alone construction wing. Little encouragement was given to the skill base to transfer to NDC – a fact which, in the CEPU's view, reflected an underestimation of the importance of the cable protection function. NDC has itself been “downsized” since that time.

The CEPU believes that cable pressure maintenance is now seriously under-resourced and poorly co-ordinated with other diagnostic and maintenance functions. For instance, since December 2001, after hours and weekend compressor maintenance has been abandoned. Alarms that occur during these periods are simply not attended to until normal working hours have begun, so that a faulty cable could be losing pressure for two days without the problem being addressed.

Moreover, it is increasingly the case that staff allocated to attend to air pressure problems will be required to provide a “quick fix” (in the form of a gas bottle), without the underlying cable fault being addressed. Even if staff had the time and authority to deal with the cable repair job, they may lack the specialist knowledge to do so (e.g. jointing skills).

The impacts of these air pressure maintenance problems are widespread. The Union believes, for instance, that one in five main cables in Sydney are without proper air pressure.³⁰

3.23 Union representatives expanded on the nature and extent of this problem during the Committee's hearings:

I am aware that there is quite a lot of usage of dry air bottles along cables to try and maintain the pressure along the cable lengths. That is an indication that not enough has been spent to make sure that the main cables are adequately sealed. It is a short-term measure to overcome the sealing of the main cables.³¹

I have here a document which is obviously from the Network Design and Construction Business Unit, which is a company within Telstra, which has now gone in-house. This report clearly identifies how many bottles right throughout New South Wales are being used on main cables, where they are not sending staff out. If a problem such as a leak in their main network were identified, the normal process would be to send out a staff member to put a bottle on it to keep the air pressure up and keep the water out.

What occurred in the past, and when I say 'the past' I mean probably pre-1997, is Telstra had a program to find and fix leaks. They therefore removed the bottles, and the compressor at the exchange took over. What is occurring now, and again this is through lack of money for capital expenditure and investment, is bottles and bottles and bottles sitting across all parts of the network, propping it up, and Telstra are not going back and fixing the network. In our view, once it does rain, Telstra customers throughout rural and regional Australia will experience a massive amount of outages where they will not have phone services. I will give you an example. I cannot quote exactly how many main cables are in Dubbo, but in my report here there are 15 cables that are not up to the prescribed Telstra standard in Dubbo alone.

... No program is in place to rectify the problem. The CEPU's major concern is that, if that is the state the main cables are in now with no money being spent on fixing problems with them since 1997, what will happen to them once Telstra is fully privatised?³²

3.24 The evidence received by the Committee also directly linked the failure to maintain air pressure in cables with the declaration of MSD's:

We have got some print-outs here of the Albion Park cables, for example, regarding the mass service disruption. When those 400 customers lost

31 Mr Gerry Kandelaars, Branch Secretary, Telecommunications and Services Branch (South Australia/Northern Territory, Communications, Electrical and Plumbing Union, Committee Hansard, 26 November 2002. p 71.

32 Mr Shane Murphy, Branch Organiser, New South Wales Postal and Telecommunications Branch, Communications, Electrical and Plumbing Union, Committee Hansard, Senate Environment Communications, Information Technology and the Arts Legislation Committee inquiry into the provisions of the Telstra (Transition to Full Private Ownership) Bill 2003, 10 October 2003, p 61.

service in February, it was because the main cable went down. It did not have enough air pressure in it and the water got in, and that is the reason it went down. Since Ms George has been raising the issue at Albion Park, NDC have had four people working to try and repair the holes in the Albion Park cables. Telstra have said to the contracting company, NDC, that they wish to have at least 40 kilopascals of air in each main cable. The print-outs that we have got in front of us indicate there are still not many cables in Albion Park that have over 40 pound of air pressure in them as we speak. Cable 3 in Albion Park has got 12 kilopascals of pressure in it. If you look through the data we only received it yesterday it shows that the standard right across Australia, where there are 18,000 of these cables under pressure, means that there could be up to one in five that are flat and have not got enough pressure in them.³³

Carrier performance statistics

3.25 This anecdotally based evidence about problems in the Telstra network should be viewed in the context of Telstra's overall performance. The ACA reports regularly upon the performance of Telstra under the Network Reliability Framework. In its June 2003 report on carrier performance the ACA reported that:

Telstra's performance shows that on average 99.06 per cent per cent of all Telstra's telephone services did not experience a fault from January to August 2003. Performance was slightly better in capital city areas (99.20 per cent) compared with non-city areas (98.99 per cent).³⁴

3.26 At first glance these figures appear to be reasonably acceptable. They appear to suggest that over the eight month period canvassed, less than one per cent of all telephone services experienced a fault. However, a closer examination of the report shows that this is an average of the monthly fault rates. To determine the percentage of faults over a twelve month period would require aggregating the total number of faults over that period from the monthly statistics.

3.27 During questioning by the ECITA Legislation Committee, the ACA agreed that this was the correct way of interpreting the figures and suggested that:

If these were different services that had a fault each month then you could add them up and, at the end of the year, you would have roughly 12 times

33 Mr Steve Dodd, Union Organiser, Communications Union Branch, Communications Electrical and Plumbing Union, Committee Hansard, 11 October 2002, p 16.

34 Australian Communications Authority, *Telecommunications Performance Monitoring Bulletin*, Issue 25, June 2003 Quarter, p 3.

the number of faults of any one month. That is fine. There is nothing wrong with that deduction.³⁵

3.28 In a subsequent submission to that Committee, the ACA clarified this issue further:

Figures published in a table in the most recent Bulletin (on page 29) included the national average for services without a fault for May (98.97 per cent), June (99.18 per cent) and July (99.12 per cent). This gave a year-to-date monthly average of 99.06 percent. The heading of the column where this figure appears in '2003 average', which has been interpreted by some readers as a yearly average rather than a year-to-date monthly average. This heading will be changed in future Bulletins to avoid the possibility of confusion.

While the recently published fault performance figure of 99.06 per cent is a year-to-date monthly average, it obviously implies a lower annual performance figure. However, it will not be possible for an actual figure to be reported until the figures for the full 12 months are available.³⁶

3.29 Under level 2 of the Network Reliability Framework the ACA also monitors performance in Telstra exchange service areas (ESAs). Telstra is required to report to the ACA every month on ESAs where the number of faults has exceeded a threshold level. The ACA has reported that on average less than 3.5% of Telstra's ESAs have reached the threshold for reporting to the ACA in each period. To date the ACA has received 1571 reports on 902 different ESAs and has conducted further investigation and analysis on 77 ESAs based on these reports.³⁷ The ACA has said that:

The ACA's analysis has shown that generally, Telstra has implemented appropriate processes and actions in order to identify the causes of service difficulties and minimise recurrence.³⁸

3.30 In its Performance Monitoring Bulletin for the December quarter of 2003 the ACA reported that an average of around 99.1 percent of services had not experienced

35 Dr Robert Horton, Acting Chairman, Australian Communications Authority, Committee Hansard, Senate Environment Communications, Information Technology and the Arts Legislation Committee inquiry into the provisions of the Telstra (Transition to Full Private Ownership) Bill 2003, 7 October 2003, p 39.

36 Australian Communications Authority, Submission 166 to the Senate Environment Communications, Information Technology and the Arts Legislation Committee inquiry into the Provision of the Telstra (Transition to Full Private Ownership) Bill 2003.

37 Australian Communications Authority, *Telecommunications Performance Monitoring Bulletin*, Issue 26, September 2003 Quarter, p 12.

38 *ibid.*

a fault in each month over the last year.³⁹ In its September Bulletin the ACA noted that an annual figure cannot be derived from this data because some services may have experienced a fault in more than one calendar month.⁴⁰ However, in the December Bulletin the ACA provided an estimate that 89.73 per cent of services did not experience a fault in 2003.⁴¹

3.31 The Performance Monitoring Bulletin also showed considerable variations between different areas. The ACA estimated that annual fault free performance ranges from a low 78.9 per cent in the Northern Territory Top End area up to 97.5 per cent in the Brisbane City and Technology area.⁴² Although the ACA did not publish annual estimates for each region, the monthly figures show that most of the best performing areas are urban while the worst performing areas are in regional New South Wales, Western Australia and Queensland.⁴³

3.32 Another picture of the state of the Telstra network is presented in internal Telstra documents which were tabled in the House of Representatives on 10 March 2003. This document showed that annual fault rates in the customer access network began rising sharply during the first half of 2002 and had reached a ten year peak of approximately 12.8% by December 2003. The document went on to say that:

- Without adequate investment in rehabilitation, the CAN Fault Rate will continue to increase incurring additional operating expense and increasing the risk of NRF breaches requiring mandatory rehabilitation action
- Since 2002/03 a prime objective, as agreed with capital sponsors, has been to keep the fault rate constant. Funding levels have not supported this.⁴⁴

3.33 In summarising the fault related performance of the CAN Telstra's internal documents said, in part, that:

39 Australian Communications Authority, *Telecommunications Performance Monitoring Bulletin*, Issue 27, December 2003 Quarter, p 9.

40 Australian Communications Authority, *Telecommunications Performance Monitoring Bulletin*, Issue 26, September 2003 Quarter, p 10.

41 Australian Communications Authority, *Telecommunications Performance Monitoring Bulletin*, Issue 27, December 2003 Quarter, p 9.

42 Australian Communications Authority, *Telecommunications Performance Monitoring Bulletin*, Issue 27, December 2003 Quarter, p 9.

43 *ibid.*, p 26.

44 Telstra Business & Commercial Operations Infrastructure Services, December 2003, Tabled in the House of Representatives 10 March 2003.

- Fault rate growth appears to be due to general network deterioration rather than a specific exceptional cause
- The current accelerating fault rate can be attributed to reduced rehabilitation activity in the recent past coupled with an intensive focus on providing quick fault restoration driven by performance imperatives and OPEX budget constraints
- Well targeted, large scope, mainly CAPEX based, rehabilitation projects will address chronic fault tails⁴⁵

3.34 The Committee also noted that the ACA's Performance Monitoring Bulletins have shown a consistent increase in the percentage of faults not repaired by Telstra within the CSG timeframes:

Percentage of faults not repaired by Telstra within CSG timeframes⁴⁶

Category	June 01	Dec 01	June 02	Dec 02	June 03
Urban areas	8	11	14	11	18
Rural areas	5	6	7	6	8
Remote areas	13	6	3	6	6
National	7	9	12	9	14

(Source: ACA Telecommunications Performance Monitoring Bulletin)

3.35 The ACA's figures for the June quarter of 2003⁴⁷ showed that Telstra failed to rectify 14 per cent of faults within the timeframe set out in the Customer Service Guarantee; and failed to make nine per cent of new connections within the CSG timeframe. In response to questions from the Committee the ACA agreed that these levels were of concern:

We indicated in the last two reports that we were concerned about the level of performance in relation to urban faults, which you also in part referred to. We have addressed those issues with Telstra and sought assurances from

45 *ibid.*

46 Senator John Cherry, *Australian Democrats Minority Report*, Environment Communications Information Technology and the Arts Legislation Committee, *Provisions of the Telstra (Transition to Full Private Ownership) Bill 2003*.

47 Australian Communications Authority, *Telecommunications Performance Monitoring Bulletin*, Issue 25, June 2003 Quarter.

them that they will take the necessary steps to raise the level of performance.⁴⁸

3.36 The more recent ACA bulletins showed an improvement in the results for the September quarter followed by a decline in the December quarter when 91 per cent of connection requests were completed within the CSG timeframe and 91 per cent of faults rectified within the CSG timeframe.⁴⁹ While the Committee is pleased to note that there has been some improvement in Telstra's fault rectification performance, it continues to be concerned about both the high levels of failure to meet the CSG timeframes and the direction of the ongoing trend. The September ACA bulletin showed a declining trend for annual performance for new service connections in major rural areas, minor rural areas and remote areas, and for fault clearance.⁵⁰

Payphones

3.37 The ACA also monitors the performance of Telstra in meeting its service standard targets for payphones under its USO standard marketing plan. The targets state that payphones in urban areas should be repaired by the end of one full working day after Telstra is notified of the fault; by the end of two full working days in rural areas; and by the end of three full working days in remote areas. In the September 2003 quarter Telstra repaired 86 per cent of faults in urban areas, 82 per cent in rural areas, and only 59 per cent of payphones in remote areas within the specified timeframes.⁵¹ The figures reported in the following quarter's ACA bulletin appear to show a significant improvement to 90.5 per cent of faults in urban areas, 86.9 per cent of faults in rural areas and 72.9 per cent of faults in remote areas.⁵² However, it is unclear whether there has been any actual improvement because:

Telstra has advised the ACA that its reporting measures for payphone fault repairs have changed for the December 2003 quarter as a result of monitoring system upgrades, making it difficult to draw comparisons

48 Mr John Neil, Executive Manager, telecommunications Analysis Group, Australian Communications Authority, Committee Hansard, Senate Environment Communications, Information Technology and the Arts Legislation Committee inquiry into the provisions of the Telstra (Transition to Full Private Ownership) Bill 2003, 7 October 2003, p 37.

49 Australian Communications Authority, *Telecommunications Performance Monitoring Bulletin*, Issue 26 September 2003 Quarter, pp 4-5.

50 *ibid.*, pp 5-6.

51 Australian Communications Authority, *Telecommunications Performance Monitoring Bulletin*, Issue 26, September 2003 Quarter, p 18.

52 Australian Communications Authority, *Telecommunications Performance Monitoring Bulletin*, Issue 27, December 2003 Quarter, p 16.

against previous quarters. The ACA will require Telstra to use a consistent measurement method for future quarterly reports.⁵³

3.38 In March 2004 the ACA published a review of payphone policy. In its report, the ACA expressed concern about the reliability of Telstra's payphones:

... the overall reliability of Telstra's payphones and its fault repair performance is poor in remote Australia, especially but not only in remote Indigenous communities. There are steps that Telstra can and should undertake to improve the reliability of its payphones. The ACA will undertake closer monitoring of USO performance by Telstra in these target areas.⁵⁴

Conclusion

3.39 The Telstra fixed line network remains the main backbone of the Australian telecommunications network. Any unreliability or deterioration in the network has the potential to seriously impact both the affected individuals and the overall economy. In light of this the Committee is concerned about the current level of faults and the frequent failure of Telstra to meet the timeframes set out in the CSG.

3.40 Telstra's own internal documents support the claims that fault rates are rising as a result of general network deterioration, a focus on providing quick fixes, and inadequate CAPEX expenditure.

3.41 The evidence the Committee has received about the standard of maintenance of the network is of considerable concern. If Telstra's fixed line network is allowed to deteriorate as a result of stop gap repairs and inadequate maintenance the subsequent problems may not become immediately apparent, but are likely to show up in the future:

You can save money in the short term. As we all know, it is like a motor vehicle. You can go on driving it and it will cause you no problem, but finally lack of maintenance will catch up with it. Unfortunately, over the last few years, maintaining returns to shareholders, et cetera, has been at the cost of the maintenance and infrastructure bill.⁵⁵

3.42 The Committee is concerned that, should Telstra be fully privatised, its board and management will be exposed to increased pressure to bolster its short term profitability to the detriment of the long term reliability of the network. The current

53 *ibid.*, p 16.

54 Australian Communications Authority, *Payphone Policy Review*, 2004, p 2.

55 Mr Gerry Kandelaars, Branch Secretary, Telecommunications and Services Branch (South Australia/Northern Territory, Communications, Electrical and Plumbing Union, Committee Hansard, 26 November 2002, p 73.

measures in place to monitor the reliability of the network only measure current fault rates. They do not examine the state of the infrastructure and are unable to identify and rectify the long term problems which have been brought to the Committee's attention.