HOUSE OF ASSEMBLY

PUBLIC WORKS COMMITTEE

GOVERNMENT RADIO NETWORK CONTRACT

Old Parliament House, Adelaide

Wednesday 24 February 1999 at 10.45 a.m.

(OFFICIAL HANSARD REPORT)

PARLIAMENT OF SOUTH AUSTRALIA

MEMBERS:

Mr I.P. Lewis MP (Presiding Member)
Mr G. Scalzi MP
Ms L. Stevens MP
Ms M.G. Thompson MP

WITNESS:

ARTHUR ROBERT TINDALL, Manager, Technical Services, Country Fire Service South Australia, 20 Richmond Road, Keswick 5035, called and examined:

147 THE PRESIDING MEMBER: Welcome, and I thank those of you who have agreed to appear before the committee and give evidence. Thank you for doing so. Before proceedings begin I would like to bring some important matters to your attention. Sections 28 and 31 of the Parliamentary Committees Act outline the privileges, immunities and powers of the committee. Witnesses should note that this hearing is a lawful function of Parliament and, as such, warrants the same respect which Parliament itself demands. These proceedings are open to the public except when the committee is deliberating on evidence that it has received or if witnesses request that part of their evidence be submitted in private for reasons of justifiable confidentiality. Unless witnesses request that evidence be received in camera, all evidence received in this hearing is available to the public. All evidence presented at this hearing will be recorded by *Hansard* and a copy of the transcript will be forwarded to witnesses to check for accuracy. In each instance I would like you to begin by introducing yourselves and giving us your title for the record. The committee would then like to hear a summary of your remarks. From that point on, if there is any explicit question relevant to the remarks you have made, either I or other members will ask a question of you at that time. If any of you who are giving evidence this morning have any queries, please do so when you come to the table to give your evidence.

MR TINDALL: I am Arthur Tindall, Manager, Technical Services, Country Fire Service. The Government Radio Network contract (GRN) falls under my responsibility. My paper outlines the CFS position with regard to the GRN and is as follows:

The risks to CFS if GRN does not proceed

(a) Most of the terminal equipment and network infrastructure has exceeded its economic life, is unreliable and/or is no longer supported by the original equipment manufacturer;

(b) All the CFS VHF services, excluding those currently provided for inter-operability with the Country Fire Authority in Victoria, are now classified as being secondary services by the Australian Communications Authority (ACA) as they do not conform to the ACA VHF band plan and are experiencing increasing levels of interference from primary services operating in Victoria and New South Wales;

(c) The CFS will be unable to explore the opportunities for efficiencies and improved service levels provided by a modern communication system; and

(d) Performance and capabilities are not consistent throughout the CFS's service delivery area.

If the GRN does not proceed the CFS will need considerable additional funding to replace and upgrade its existing communication services.

148 THE PRESIDING MEMBER: How much?

MR TINDALL: We have done an assessment.

149 THE PRESIDING MEMBER: Give or take $5 million.

MR TINDALL: It is approximately $16 million, which is a very vague estimate. My submission continues:

It is unlikely that the CFS could construct a network that could provide the same functionality and services that would be provided by the GRN, notably mobile data and wide area paging. The CFS is concerned that, should the GRN not proceed, and agencies continue to use separately established networks, then the ability for communication between agencies at various levels, notably during major incidents, may not be available. If the GRN does not proceed, the CFS will lose an opportunity to apply various advanced network features to its operations, for example, the application of mobile data services to support features such as automatic vehicle location and resource tracking, fire perimeter tracking (using GPS), remote weather monitoring and image transfer.

Use of the GRN

From work conducted to date, the CFS acknowledges that the GRN as described in the request for proposal will meet all of the CFS's requirements for voice radio and paging and provide a consistent performance level and advanced capabilities throughout the CFS's service delivery area that is covered by the GRN. The CFS has through a risk management process, as a component of its OHSW responsibilities, identified areas for further investigation. This investigation will occur following formal contract signing and will involve the development of contingent actions to cover any unavailability of the GRN services. The CFS fully expects that acceptable contingent actions can be developed.

The Ericsson discussion paper

This paper was a component of the CFS's risk management activities and provided the CFS with:

· the assurance that the GRN voice radio service (i.e., trunking and simplex) would meet the CFS's requirements;
· identification of potential risks in the continuation of its current decentralised paging system; and
· a recommendation that the CFS develop further analysis of the GRN paging network to identify potential failure modes and develop, in cooperation with DAIS (and the service provider when appointed), suitable contingent actions to cover any periods of system unavailability.

150 THE PRESIDING MEMBER: Did you say `failure modes'? You mean there are going to be failures?

MR TINDALL: No. As with any system there is the possibility of failure and we have to put contingencies in place to ensure that any failure that occurs does not affect our service. My paper continues:

This paper, and the issues raised therein, has been superseded by subsequent joint work carried out by DAIS and the CFS that has established a clear framework to process the resolution of any issues and position the CFS to take up the GRN services at the earliest possible opportunity. It is important to note that no radio system can be considered 100 per cent available and agencies such as the CFS, where communications can be classified as mission critical, must develop contingency plans to ensure service delivery is not severely compromised during periods of communications unavailability. The CFS notes that the availability targets contained in the request for proposal describe a system with availability levels commensurate with those demanded by emergency services.

Impact of delays to the GRN

Delays to the GRN will increase the CFS's exposure to failures in its current network and the consequent ability to manage incidents efficiently. Short delays, even those of a few weeks, have the potential to delay the CFS's

transition to the GRN by several months should the delay preclude migration before any fire season. The CFS and DAIS have recognised this potential and will be working to identify ways and means of ensuring the earliest possible take up of GRN services following contract signing.

VHF v UHF

While the CFS preference is for the retention of VHF, the CFS notes that, whilst lower frequencies offer a theoretical improvement in range, this improvement is unlikely to offer any significant performance advantage on the fire ground, and in pine plantations, due to the restricted operational range requirements (typically less than 1 000 metres). The CFS therefore believes that the GRN infrastructure independent service (simplex) operating on the UHF band is capable of meeting the requirements for fire ground communications. The CFS also notes that the performance of GRN infrastructure dependent communications (trunking) is covered by service level performance guarantees under the GRN contract and that the choice of frequency band is one for the service provider to make. The CFS further notes that DAIS has included forests as critical places in their current design optimisation process presently being undertaken with the preferred service provider.

Summary

The CFS's current radio and paging networks have passed their `use by' date. Ageing equipment with an increasing failure rate has the potential to compromise the delivery of an efficient emergency service to the public of South Australia. The GRN represents an opportunity for the CFS to migrate to a modern communication system with a feature set unobtainable in its current system and affords the CFS an opportunity to explore efficiencies in service delivery.

That completes my submission.

151 THE PRESIDING MEMBER: Are you the best qualified person in the CFS for us to discuss this communications technology with?

MR TINDALL: Mr David Keddie would be more appropriate on the technical side.

152 THE PRESIDING MEMBER: What do you mean with regard to the technical side?

MR TINDALL: His role is that of a telecommunications engineer. He is contracted to the CFS and not an employee.

153 THE PRESIDING MEMBER: Why is he not here?

MR TINDALL: Because the Chief Executive Officer of the CFS designated it as my responsibility to attend.

154 THE PRESIDING MEMBER: Is Astro Smartzone the best technology available in the world?

MR TINDALL: I am not the appropriate person to answer that question.

155 THE PRESIDING MEMBER: Who is?

MR TINDALL: Again, probably DAIS, which has carried out the investigation.

The CFS has worked to protocols designated by DAIS.

156 THE PRESIDING MEMBER: Is Astro Smartzone the best technology available for the CFS's purposes?

MR TINDALL: I cannot answer that question.

157 THE PRESIDING MEMBER: So, is that an open question, as far as you are concerned?

MR TINDALL: That is an open question. I believe that there are more appropriate people who could answer that question.

158 THE PRESIDING MEMBER: And you believe that that is not Mr Keddie, but someone from the Department of Administrative and Information Services?

MR TINDALL: Yes.

159 THE PRESIDING MEMBER: What is the frequency range of VHF, as opposed to UHF?

MR TINDALL: Again, that is outside my area of expertise.

160 THE PRESIDING MEMBER: So, what you have done is prepare a statement, bring it here and tell us what you want us to hear?

MR TINDALL: Yes. I worked in conjunction with my telecommunications engineer and presented the statement to this committee.

161 THE PRESIDING MEMBER: Mr Keddie will have to come before this committee.

162 MR SCALZI: You said that it would cost $16 million to upgrade.

MR TINDALL: Yes.

163 MR SCALZI: If that were the case, for how long would you keep those communications?

MR TINDALL: As I said, that is probably a very vague figure, because we also have communications with band width availability. We currently use secondary band width, and it depends on the band width being made available by the ACA. That would allow us (remembering that our network has, effectively, not been maintained for a number of years) approximately three to four years— effectively, it will bring us up to an existing standard, which is well below that offered to us with GRN.

164 MR SCALZI: So it will be a patch-up job?

MR TINDALL: It will still be a patch-up job.

165 MR SCALZI: That will still leave us well behind.

MR TINDALL: It would certainly leave us significantly behind the features offered by GRN.

166 MR SCALZI: So, in your opinion, that would be a waste of money.

167 THE PRESIDING MEMBER: Are you sure that you are competent to answer these questions?

MR TINDALL: Yes, I am.

168 THE PRESIDING MEMBER: But you could not answer mine.

MR TINDALL: No, I could not answer yours because, as I said, in my area I have overall responsibility, but I delegate that responsibility. If the committee would like to call Mr Keddie, subject to my CEO's approval—

169 THE PRESIDING MEMBER: We will call him. He is to come before this committee. You need to understand that this is a proceeding of Parliament itself.

MR TINDALL: Would you like him to appear before the committee today?

170 THE PRESIDING MEMBER: I have directed that he shall.

MR TINDALL: Today?

171 THE PRESIDING MEMBER: I do not mind when. The sooner we hear from him, the sooner this report will go past the committee and the sooner we can get down to business. Let me make it plain to you and to every other witness here this morning that the committee understands the urgency of getting an appropriate communications network in place, but we will not do that unless we are satisfied that the public interest has been served by the decisions that have been made.

MR TINDALL: I understand that.

172 THE PRESIDING MEMBER: Is the Astro Smartzone technology capable of communications through an ionised atmosphere?

MR TINDALL: Again, that is outside my area. I will inform Mr Keddie.

173 MS STEVENS: When was the last time that your agency updated its radio equipment?

MR TINDALL: Approximately 1989. After Ash Wednesday in 1983, most brigades ran about four channels. Most brigades run consistent radio channels, and there are approximately 20 channels across the brigade.

174 MS STEVENS: What was the resource implication of that upgrade, and can you be more specific about precisely what you did?

MR TINDALL: We changed our radios to Motorola PRM80, which allowed us to give brigades inter-operability between themselves—because one of the problems that occurred on Ash Wednesday was the fact that brigades had a limited number of channels and, consequently, brigades coming from outlying areas could not communicate.

175 MS STEVENS: What else did you do?

MR TINDALL: Really, apart from ongoing maintenance, the communications system has just been held in limbo.

176 MS STEVENS: How much did that cost?

MR TINDALL: I have no idea.

177 THE PRESIDING MEMBER: Will you get that information for the committee?

MR TINDALL: I can get that information.

178 MS STEVENS: When you gave your statement you outlined some of your current problems, which you believe will be overcome by the new system. I want to return to the Ash Wednesday and the Coroner's recommendations, because in much of the information that the committee has been given about this new contract the Coroner's report has been mentioned as being the driving force. I have not read the whole report, but I have read the recommendations, and it seems to me that there is not a lot in there in terms of this network. Certainly, the Coroner talked about communications issues as being very important and the need for improvement, but I would see that as very much being part of management issues between various sections. Can you tell the committee how the Coroner's report relates to this system?

MR TINDALL: My understanding—and I have not read the Coroner's report—

179 THE PRESIDING MEMBER: So, you cannot tell the committee. Do not waste your time. Do not risk something that will cause you embarrassment. Just say you cannot answer that question. Remember, it is more serious to mislead this committee than to commit

perjury.

MR TINDALL: I have no intention of misleading this committee.

180 THE PRESIDING MEMBER: So, if you have not read the Coroner's report, do not chance it.

MR TINDALL: I state that I have not read the Coroner's report.

181 MS THOMPSON: Are you aware of the fact that Motorola no longer manufactures in Australia and, in addition, that it no longer carries out any repairs or maintenance in Australia?

MR TINDALL: I am aware that Motorola no longer manufactures in Australia, but I am not aware that it no longer carries out maintenance.

182 MS THOMPSON: So, you are not aware that, when your equipment fails (as, no doubt, it will), there will be a considerable time and distance gap—you will have your handsets thousands of kilometres away. So, you have, therefore, not yet taken any contingency action to deal with this maintenance process.

MR TINDALL: In recent dealings with Motorola, where we have required maintenance on equipment, that maintenance, which previously was done in Adelaide, has been done in Melbourne.

183 THE PRESIDING MEMBER: In relation to that, then, will the high frequency network remain in use at all by the CFS for communications with remote sites?

MR TINDALL: With remote sites, no. We have to look at alternate technology to cover our remote areas, and that is not covered by the Government Radio Network.

184 THE PRESIDING MEMBER: For instance, interstate communications across the Victorian boarder.

MR TINDALL: Interstate communications across the border will necessitate the need for two radios in the appliances: one to cover the CFS band currently used by the Country Fire Authority and one for the UHF, which is proposed for GRN.

185 THE PRESIDING MEMBER: So, will that mean that the high frequency network—or whatever it is that you have—will remain in use?

MR TINDALL: We will need to retain our communications with the CFA—

186 THE PRESIDING MEMBER: Will the high frequency network that you have at the moment remain in use?

MR TINDALL: We will transition to the Government Radio Network totally.

187 THE PRESIDING MEMBER: You have confused me more than ever. You will switch over to the Government Radio network—

MR TINDALL: Within the area covered by the Government Radio Network, the CFS will transition to the Government—

188 THE PRESIDING MEMBER: What does that word mean?

MR TINDALL: Pass over. It will be a progressive process. The movement to Government Radio Network will not be done across the State in one hit: it will be done by business regions. So, for a period we will have to work with existing standards and the new standard. In areas where the Government Radio Network will not cover pastoral areas, and so on, we have to consider alternate technology—be that HF radio, satellite phone or any other means of communications.

189 THE PRESIDING MEMBER: So, you are probably waiting for the satellites to come in in about four years time before you switch over to high frequency stuff?

MR TINDALL: No. Brigades are already using satellite phones. During the recent Ngarkat fire I provided portable satellite phones for communications.

190 THE PRESIDING MEMBER: That means that there is a call cost.

MR TINDALL: There is a call cost.

191 THE PRESIDING MEMBER: Once the connection is made with another telephone, that is not really what you would call a network conference.

MR TINDALL: No.

192 THE PRESIDING MEMBER: So, it is just between two people in two places.

MR TINDALL: Yes.

193 THE PRESIDING MEMBER: However, radio, as we know, is broadcast from the transmitter and is picked up by any other receiver that can pick up that signal anywhere: is that correct?

MR TINDALL: Correct.

194 THE PRESIDING MEMBER: So, in effect, a large number of people can hear the message.

MR TINDALL: That is correct.

195 THE PRESIDING MEMBER: A satellite phone is just dialogue, but radio is literally broadcast—

MR TINDALL: Yes.

196 THE PRESIDING MEMBER: There are more than two people: it is more than dialogue.

MR TINDALL: That is correct.

197 THE PRESIDING MEMBER: So, in the Ngarkat fire context, there were two people talking to each other but no-one else could listen.

MR TINDALL: Over wide areas—within the fire ground and using our current network, people close to the fire ground could certainly listen in; that is, under the current system.

198 THE PRESIDING MEMBER: They can listen in to those phone conversations?

MR TINDALL: Not the telephone conversations.

199 THE PRESIDING MEMBER: That is what we are talking about.

MR TINDALL: No, the Ngarkat fire was not—

200 THE PRESIDING MEMBER: How do you coordinate the work on the ground of the volunteers in their trucks, and so on, where they have backpacks, if you cannot talk to them on the radio handsets? It is like trying to control an infantry platoon in a war zone using satellite mobile telephones, which is idiocy.

MR TINDALL: No. It is a situation where, with portables and radios and appliances, we can easily communicate for a kilometre, maybe more. It is when we go outside that expanse, where we go long distance—back to a base, for example—that we lose that ability to communicate.

201 THE PRESIDING MEMBER: So, to communicate with the brigade groups that are there from Victoria (with respect to the Ngarkat set-up) or if, in the future, there was a fire in the Myora forest complex across the border near Mount Gambier, you would still need to have high frequency?

MR TINDALL: Yes.

202 THE PRESIDING MEMBER: If Victoria's current set-up does not prove compatible with the South Australian Government Radio Network, there will still have to be high frequency equipment available, if that is what they are using?

MR TINDALL: For the brigades that operate across the border, yes.

203 MS THOMPSON: Will your agency have to pay for some of the equipment under the Astro Smartzone system, or will it all be supplied as part of the GRN contract?

MR TINDALL: It will be supplied as part of the GRN contract and we will revise it, because it will be on a replacement basis.

204 THE PRESIDING MEMBER: So, does that mean that your budget line will be decreased to cover the fact that you will not have to buy replacement equipment that would have been needed had it not been for the GRN?

MR TINDALL: No, It does not because, being cost neutral, the maintenance and infrastructure budget that we currently use will be offset against the cost of the GRN.

205 MS THOMPSON: Is this reflected in your portfolio estimates statement?

MR TINDALL: I cannot answer that.

206 MS THOMPSON: Can you provide the committee with information about how it is reflected in your statement?

MR TINDALL: Yes.

THE WITNESS WITHDREW

ADDITIONAL WITNESS:

COLIN CORNISH, Chief Inspector, South Australia Police, Box 1539 GPO Adelaide, called and examined:

207 THE PRESIDING MEMBER: Would you commence your submission?

MR CORNISH: I am a Chief Inspector of South Australia Police. My current role is SAPOL Manager of Computer Aided Dispatch and Government Radio Network projects. I have prepared documentation for you. It is formatted with an introduction looking at what is driving this project, our current situation as far as SA Police is concerned within radio communications, where we would like to go, and the business opportunities that the GRN affords us. It also gives my personal concerns and the key performance indicators of what we expect from the Government Radio Network to improve SA Police efficiencies. I would just like to reiterate that it has been quite some period since there has been any major upgrade of radio communications within SA Police, partly as a result of the Torrens report from the 1983 bushfires. There have been periods when radios have been purchased but not in vast amounts in any major contractual arrangements. The SA Police considers itself to be treading water for sometime in anticipation of a trunked radio service for whole of government radio networks.

As was previously mentioned, one of the persuasive drivers to change to a trunked network has come from the Federal Government through the Australian Communications Authority, requiring police and emergency services to vacate VHF spectrums or become secondary users. Currently police are secondary users of the VHF spectrums, which are mainly in the rural areas. There has also been a strong encouragement from the Federal Government to join in a trunked communications system to share scarce spectrum availability. Other drivers have been public sector work force reform, obviously the age and limited ability of current networks, interference and unreliability of networks and multi-agency needs in counteracting disaster and major events situations and in a disaster recovery plan. It is also quite significant that we must have a system that is capable of taking advantage of advancing technology.

Our existing radio networks are based on the UHF voice frequencies in the greater metropolitan area with a mobile data network roughly covering the same area. In the major country towns we have UHF and in rural areas, VHF, and remote other areas rely on high frequency. I would just like to give some anecdotal instances of current radio problems that we encounter. I have listed seven anecdotal instances, but there are probably many others. The Gorge Road to Williamstown is unfortunately the scene of a number of serious motor vehicle collisions. Because of the topography of that area we have little or no radio communication. That is a source of constant frustration to police officers attending scenes. Recently in the successful Tour Down Under cycle race around South Australia, because of the topography and distances involved, there was again limited radio communication and SAPOL was obliged to use constant air coverage to maintain communications. It is expected that the same methodology will be needed to police the route of the Olympic torch event. New shopping centres such as Marion are barriers to communications and require specialised

equipment. Obviously with large gatherings of public there is a need for policing. One of the physical barriers that radio communications have to overcome is penetrating buildings as far as policing is concerned.

208 THE PRESIDING MEMBER: Will GRN fix that?

MR CORNISH: I believe so, under the current RFP (request for proposal).

209 THE PRESIDING MEMBER: And it will fix the problems in the Gorge Road area and places like that?

MR CORNISH: Within the special expression of the RFP, I believe so. That RFP laid out specifications and requirements for our radio coverage areas. Many areas in the Adelaide Hills zones have no radio communications because of the topography. Where possible, Hills police are obliged to use link sets that connect portable radios to vehicle mobile radios to obtain some communications. There are many areas within the Adelaide Hills that have no radio communications at all. Some rural police areas have no or poor radio communications. One police officer reports that the only inadequate communication is from the police station garage. With respect to shared networks, we do share some infrastructures. I cite Kangaroo Island where that infrastructure is shared with State Emergency Services, and occasionally there is some conflict as to usage because both organisations are attempting to use the same frequency for different needs. The seventh example is quite significant. There has been much evidence that criminals have easily scanned our current police radio communications because it is quite open and it has, in my view, enhanced some illegal activity.

210 THE PRESIDING MEMBER: Has it made crime worse?

MR CORNISH: Yes. There is a constant problem of illegal obnoxious transmissions made on the current police network and it has been my observation that female dispatch operators have been regular targets of offensive abuse.

211 THE PRESIDING MEMBER: From members of the general public?

MR CORNISH: From illegal transmissions, by unidentified members of the general public, yes.

212 THE PRESIDING MEMBER: The GRN will fix that?

MR CORNISH: Yes. It will reduce that possibility.

213 THE PRESIDING MEMBER: By what proportion?

MR CORNISH: I cannot say, but it would be a trunked network and the ability to access that network will be much less than on an open frequency network.

214 THE PRESIDING MEMBER: Is that because you cannot buy the equipment at the moment?

MR CORNISH: Yes, and also the equipment has to be registered to be part of a network to work on the network.

215 THE PRESIDING MEMBER: Is there a ban on its importation?

MR CORNISH: Not to my knowledge.

216 THE PRESIDING MEMBER: Then it will only be a matter of weeks—

MR CORNISH: It is not the sort of equipment you can buy at Tandy's. It is quite expensive.

217 THE PRESIDING MEMBER: If a criminal element wanted access to the police radio network, the technology exists to get it?

MR CORNISH: Yes, but it would be much more difficult than at the moment. SAPOL at the moment owns and manages a mobile data 4800 network that services the Adelaide metropolitan area. This was introduced in 1990 when the new computer aided dispatch system was installed. In my view it has been responsible for many improved police efficiencies. It has, however, extended its proposed life span and the terminals required are no longer manufactured. In recent times again the secure nature of that network is known to have been compromised. The future proposal of fast data transfer gives an opportunity to transfer graphics and I have given an example of a photograph of a missing person to patrol vehicles with advanced technology. That is not possible under the current systems. It is acknowledged that the implementation and cost of the StarLink network is considerable and that the only alternative is for each individually radio equipped organisation to maintain its current analog system and to build out known imperfections. That course will never achieve the level of superior service and technology improvement expected by the StarLink, in my view, and analog is likely to be redundant in future years.

218 THE PRESIDING MEMBER: StarLink is part of the Government Radio Network proposal under the Astro SmartZone technology?

MR CORNISH: Yes, I believe that is the interlinking name. Government Radio Network and StarLink are one in the same.

To deliver police service at current standards requires an acceptable level of radio communication, and during the GRN conceptual discussions the point was made that police would not accept any level of communications lower than currently experienced. So the minimum requirements for SAPOL at the moment are Statewide area UHF 400 MHz, portable and mobile radio network transmission and a high speed mobile data network 800 MHz range

within the greater Adelaide metropolitan area.

219 THE PRESIDING MEMBER: Are they are in the VHF band?

MR CORNISH: No, UHF. Currently SAPOL supports 73 country and about 64 metropolitan transmission sites, and there is a network linkage between those sites. Some of those sites are used with the permission of other agencies and apart from breakdown and repair, and in anticipation of the Government Radio Network, these sites have only received minor maintenance for a number of years and no replacement cycle plan has been implemented. The Carrington Street Communications Centre is also a radio broadcast site and houses radio communication equipment subject to replacement. This will be required in the year 2000 at a currently estimated cost of $1 million. SAPOL uses 1 278 portable radios with accessories, 2 487 mobile radios, and there are about 158 radio consoles within police stations and detention centres. Apart from a recent acquisition of 750 GRN compatible portable radios, none of this equipment is compatible with the StarLink initiative. There are about 260 mobile data terminals within use in the Adelaide metropolitan area. SAPOL has always found a necessity for 600 terminals but the remainder were never purchased because Motorola has ceased manufacture of the terminal model used.

220 THE PRESIDING MEMBER: So you are already under-resourced?

MR CORNISH: Yes, in my view.

221 THE PRESIDING MEMBER: And the Government Radio Network proposals for the Police Department will remedy that?

MR CORNISH: I hope so.

222 THE PRESIDING MEMBER: Hope is not a method. How can you better explain what you mean? Are not sufficient commitments given for the provision of funds to buy the stuff needed?

MR CORNISH: Commitments have been given on a like for like replacement basis.

223 THE PRESIDING MEMBER: But like for like will mean you are still short?

MR CORNISH: Yes. About 200 pagers are used throughout the organisation at the present time and are through contractual arrangements with private companies such as Link and Hutchinsons. Compared to other emergency services, paging plays a very minor role in SAPOL's communication needs. If we were to maintain our current network, it is estimated that the operating costs would be about $4.4 million, but with a needed and properly restructured replacement program that would increase to about $10 million as a continuing and ongoing requirement at current values.

224 MS STEVENS: You said `Annual maintenance and operating costs for the current SAPOL network', whereas the written note states `. . . for the required SAPOL network'. Would you clarify that?

MR CORNISH: I should explain. That is if we were to bring our current analog networks up to the standard that we would prefer.

225 MR SCALZI: If we were to accept the new network, how would the South Australian police communications system compare with other States?

MR CORNISH: How would our communications compare?

226 THE PRESIDING MEMBER: Yes; given that we adopt the new network and relays, like for like, are we up to scratch in comparison with other States?

MR CORNISH: We will be and we will be ahead of most.

227 MR SCALZI: You say that if we accept this network we will be ahead of most States?

MR CORNISH: Yes.

228 THE PRESIDING MEMBER: However, we would still be short on what is really needed?

MR CORNISH: I think that there is probably a business case to upgrade certain numbers in certain areas. I hone in on the mobile data network because currently mobile data transfer is available only to SAPOL within the greater metropolitan area. The StarLink network gives us the opportunity of data transfer Statewide. We will therefore need more terminals to operate that outside the metropolitan area.

229 MR SCALZI: If we stay with the present system, as time moves on, we will be static and move farther behind?

MR CORNISH: Yes.

230 MR SCALZI: Whereas, if we adopt the new system we will improve and be ahead of some other States?

MR CORNISH: Yes, and we will be able to take advantage of new technologies.

231 MR SCALZI: We will have more flexibility?

MR CORNISH: Yes.

232 THE PRESIDING MEMBER: We are short on time this morning. There is a great deal more in your presentation than I anticipated we would be given. I think that I need to say to you that we will require you to come and talk to us again next week. Before I ask you to leave the witness seat, I need to know from you if you are the most or best qualified of, or at least equivalent to, anyone else in the force, to provide us with this expert evidence in respect of both the administrative arrangements and the technology.

MR CORNISH: I am not the most expert in terms of the technology: I am probably the most expert in terms of administration and operational methods of communications. I have a better knowledge of technology than the layman but I am not an expert.

233 THE PRESIDING MEMBER: Can you then bring with you next week whomever is the department's expert in radio technology?

MR CORNISH: I will, Sir.

234 MS STEVENS: Is your agency aware of the problems experienced by your counterparts in New South Wales with the Motorola Astro Smartzone equipment? Media reports reveal that, from as long ago as January 1995, the New South Wales GRN has been a $20 million shambles and simply does not work. For instance, problems were reported to be associated with computer prioritisation of calls, which could delay police being averted to major crimes; problems with trunking technology, which means that some calls would drop out when too many were being made; and loss of coordination with other police forces and large areas of the State not covered. The latest report—and I have a copy of the *Sydney Morning Herald* of 9 February—reveals ongoing problems with expensive equipment that does not comply with police specifications. How do you react to those reports?

MR CORNISH: I have read a number of reports emanating from New South Wales and I have even visited that State to view some of the technology. I think that, on balance, problems may be experienced occasionally, as always happens with technology, and that must be fixed. I am aware of some of the instances you mention and, when one looks at the causes, one sees that they relate to poor training or poor knowledge of the operatives and the equipment.

235 THE PRESIDING MEMBER: It is not really about the technology that is there?

MR CORNISH: I do not think so. When you are talking about dispatching and prioritisation I do not think that you can blame trunk problems: it may be a software fault within the program.

236 THE PRESIDING MEMBER: Would you and the other officer review what has happened in New South Wales and give us a brief summary then?

MR CORNISH: I am trying to answer some of those questions but I do not

know the source of the information that was just read out—whether it was a media source.

237 MS STEVENS: We can provide you with that source, but we really need to know very clearly that, if things are going wrong in New South Wales to the extent that they seem to be, those problems will be debunked conclusively in South Australia before we start running down the same track.

MR CORNISH: I will do my best to answer the problems.

238 MR SCALZI: You mentioned that many of the problems could be associated with training. What do we have in place in that respect?

239 THE PRESIDING MEMBER: We can get that information next week.

240 MR SCALZI: Do we have any plans in place?

241 THE PRESIDING MEMBER: I want you to be able to tell us, as a committee, next week why this system is superior to any other that is on the market and superior to the existing communications systems; and that the resources that are needed are available and, if not, what resources are needed for which there is, at present, no commitment but there is `hope' so that we will know that. It needs to be part of our report about the matter to the Parliament. It would not be appropriate for us to say that the public interest is served if we had not made that inquiry and obtained any information that is available to us for the report. Whilst I am grateful to Mr Scalzi for raising the matter at this time, I do not think it is appropriate to canvass it at this time.

242 MS THOMPSON: Inspector, you heard my question about maintenance and that our information is that maintenance may not be available in Australia. Could you clarify, before your next appearance, what maintenance arrangements will be in place and how you will cope with those, and similarly the financial arrangements? What is the implications for the SAPOL budget and where does it appear in the current budget papers? My other question relates to the delay that has been experienced in introducing the network. It has been talked about since 1993-94 and you talked about difficulties with your system now. To what extent have they been caused by the fact that it has taken five years, so far, to get this system up and going?

MR CORNISH: We have virtually been treading water for a number of years in anticipation of the introduction of the Government radio network. We would not spend a lot of money on a network which we know will be upgraded.

243 MS THOMPSON: Would I be very cynical if I said that it gets to the stage where, because you have not been able to do anything, any system is wonderful?

MR CORNISH: No, I do not think so. I think you will see that my paper states that of all the emergency services, organisations and police forces, our system is still quite

functional as far as the greater Adelaide metropolitan area is concerned, and that is the case at this moment. We obviously want new technologies. Our vision is to be an intelligence based policing organisation and we will not be able to achieve that unless we have immediate access to input in databases and technology, such as the StarLink network offers us. I must say that I have not researched other networks. I know that Ericsson might offer a similar type of network but, from what I have read, seen and discussed, the StarLink network offers us what is required.

244 MS THOMPSON: Can you, next week, tell us about the budget implications for the StarLink system? Your comments in the paper seem somewhat conditional.

245 MS STEVENS: Harking back to the maintenance issue raised by Ms Thompson, you talked about annual maintenance and operating costs. If nothing happened, can you tell us what the projected annual maintenance operating costs will be under the new system?

MR CORNISH: I cannot tell you that at the moment, no. I am not privy to those figures within the contract.

246 MS STEVENS: Those figures are not available?

MR CORNISH: I understand that they are commercially sensitive figures through negotiations.

247 MS STEVENS: While you know what it would be for the equipment you now have, you do not know—

MR CORNISH: I cannot tell you. I have not been involved in the negotiations with the successful bidder: that has been carried out by DAIS. I provided detailed information in relation to those costs to the people who were undertaking those negotiations. We have provided our current costs and our current needs to the people involved in those negotiations.

248 MS STEVENS: Are you confident that they represent your needs?

249 THE PRESIDING MEMBER: It is not possible for the witness to answer that. It is a matter for `them', whoever `they' may be.

250 MS STEVENS: My point is that you must put a lot of trust in the people who do not know your system and your needs inside out. You must put a lot of trust in their being able to estimate what it will be like for you?

MR CORNISH: I think that it is fair to say that the people with whom I have been dealing from DAIS have my trust. The officer with whom I have been dealing mainly is an ex-employee of the radio communications area of the Police Department and I know him well. I know that his ability and integrity are outstanding.

251 MS STEVENS: I am questioning not his integrity but the level of his understanding of your needs.

MR CORNISH: I think that they have their mind right across our needs.

252 THE PRESIDING MEMBER: Thank you for your attendance today.

THE WITNESS WITHDREW

ADDITIONAL WITNESS:

DAVID ALLEN, Commodore of the Australian Volunteer Coast Guard, South Australia Inc., Box 60, Semaphore 5024, called and examined:

253 THE PRESIDING MEMBER: Mr Allen, please proceed.

MR ALLEN: I will refer to my organisation as coast guard, for simplicity. By way of a change, perhaps, to this format, I am before you with a view to making an application to be part of the Government radio network. Our current situation is that, until 1 July, subject to Government ratification, we will be joining and becoming a functional unit of the State Emergency Service. Our coast guard organisation has 130 volunteer members and in excess of 1 500 radio associates. We maintain radio bases from Port MacDonnell in the South-East to Ceduna on the West Coast. Two of these bases already have access to the existing police radio communications system. By way of our own financing, through our volunteer efforts, we have established repeater systems at Robe, Myponga, Port Lincoln and Port Pirie. These systems have been substantially enhanced by the establishment of a link on Yorke Peninsula.

In addition, we run eight vessels on the coast. We are dedicated to search and rescue. We cover HF channels, VHF channel 16 and repeaters, 27 MHz and UHF. Our whole existing system, of which you have a map and chart on the back of your paper, breaks down in an emergency if we are unable to communicate with the South Australian Police, Water Response Section, Sea Rescue Squadron, Surf Life Saving Society, MFS and CFS, Air Sea Rescue, St John Ambulance and the RAAF. We are making application to join part of the coordinated system of communication. That means that information given out on a radio would be heard by everyone in the one hit, thus eliminating the wrongful misinterpretation and repeating of a message. With our establishment we believe that our members can contribute to the betterment of the State Emergency Services because they are already partly trained to some extent and we need to be included in the system.

254 THE PRESIDING MEMBER: And you believe from the discussions you have had amongst the members of your board and other volunteers with expertise in the matter that the Astro SmartZone technology proposed by the Government radio network will serve your needs?

MR ALLEN: It would be a very big improvement because of the limited communications that exist outside our network when we are on the water. The communications we were talking about are related to marine communication.

255 THE PRESIDING MEMBER: But this will provide the interface between that and other services with which you would like to have connection?

MR ALLEN: Yes.

256 THE PRESIDING MEMBER: Do you have any understanding as to the assistance that might be provided, that is, the money needed, to switch over the equipment you

have at the moment to equipment that will be compatible with the Government's radio network?

MR ALLEN: I am not in a position to quantify that in dollar terms.

257 THE PRESIDING MEMBER: No-one else has attempted to?

MR ALLEN: No. However, if we are to put in a new system we ought to think of the big picture and not just have one arm excluded from it.

258 THE PRESIDING MEMBER: But not only should the coast guard volunteers be included, but they need financial assistance to buy the necessary equipment?

MR ALLEN: Yes, we would not be able to fund it ourselves and would need financial assistance to do that. I took some statistics for the year ending 30 June 1998. We did 1 357 rescues for the year, potentially saved 300 lives and potentially saved $1.3 million in assets.

259 THE PRESIDING MEMBER: I suppose it is better than waving your arms and yelling in the dark had one fallen out of the rigging of a ship in our coastal waters of 150 years ago.

MR ALLEN: It still takes three and a half hours for the people at Marian Bay, who would be swimming in the water for that long before being rescued by the helicopter. The radio system we have been made aware of would eliminate that. We could have got a vessel to the people at Marion Bay within half a hour.

260 THE PRESIDING MEMBER: All members of this committee and all my colleagues in the Parliament who have any interest whatever in water sports, especially at sea, appreciate the work which the volunteers do and which your organisation does in coordinating their efforts and making them so much more meaningful to us as citizens. I want you to understand and let them know that and to express to them and to yourself our thanks for making your opinions known about the proposed network and benefits it will bring. Can you take those thanks back to the volunteer coast guards?

MR ALLEN: Thank you, Mr Chairman, I will.

THE WITNESS WITHDREW

ADDITIONAL WITNESS:

DARIAN BERTRAM NEIL STRINGER, Communications Officer, State Emergency Services, 30 Flinders Street, Adelaide, 5000, called and examined:

261 THE PRESIDING MEMBER: Will you proceed with your submission, Mr Stringer?

MR STRINGER: I am the Communications Officer with the State Emergency Service in South Australia. I also provide communications management advice to the State Disaster Organisation. My expertise is in the operation of radio, with 38 years experience in police, ambulance, fire and SES. I was one of the evaluation team for the operational requirements for the Government radio network contract (GRNC). As a result of the GRNC, considerable benefits will flow and be possible for the SES. This is also the case with the State Disaster Organisation. Existing terminals are obsolete and sufficient radio spectrum is not available. Statewide coverage will be possible as against pockets of coverage that currently exist throughout the State.

The State Disaster Organisation for the first time will have capacity to use radio to communicate with the respective divisional operation centres on dedicated and secure networks. Interoperability with other Government agencies will also be possible. As a result, considerable change management will be possible. Both the SES and the State Disaster Organisation have not expended any funds on new radio equipment for the past eight years. Currently there are considerable shortages of necessary operational equipment. The concept of common radio networks is already practised by the SES. For example, in Coober Pedy all emergency services, police, hospital and local government can operate on a single SES network.

262 THE PRESIDING MEMBER: Does it work well?

MR STRINGER: Exceptionally well. In addition, the SES and police share the work on Kangaroo Island to give better services to the community. Other agencies that operate on SES frequencies and infrastructure include primary industries and marine boating inspectors on the river and on the sea. This assistance is given to provide services over several years at little cost, pending the introduction of the GRNC. Concerns are that the system is taking too long to implement. I have been involved personally in the process for more than 10 years. To continue with the existing system is not an option. There is currently a severe risk to this State in that existing networks are not reliable due to interference and overloading. All of the SES VHF network is secondary protection, with Victoria having primary protection due to the changes taken up by that Government. The SES is desperate for paging services due to obsolete and unprocurable pagers required for our current overloaded SES paging systems.

The biggest advantage will be the interoperability between agencies, especially emergency services. It will improve SES response times; it will provide a secure and reliable service; it will provide for common equipment; and it will give us all new equipment and full coverage for paging services. There are paging service requirements to

local units and they currently have no paging. It will provide a network that will allow contact to and from the State emergency operation centres and the respective divisional operation centres as required in a disaster or major emergency.

263 THE PRESIDING MEMBER: I know of your expertise and place on record that you are my cousin.

264 MR SCALZI: You said that the current system is not an option.

MR STRINGER: Absolutely correct.

265 MR SCALZI: Are we well behind other States or comparable?

MR STRINGER: Well behind.

266 MR SCALZI: How far behind will we be in 12 months time?

MR STRINGER: We will superior to all other States and to many other areas in the world if we change.

267 MR SCALZI: Can you give us some examples of other places in the world that use the proposed system?

MR STRINGER: London's Metropolitan Police. I have not seen it but have read about it and its impact on the community, as well as on the enforcement agencies. I believe it is far superior to what we have now.

268 MS STEVENS: You clearly outlined the needs and what you expect will be the advantages of the new system. Are you confident that it will deliver that?

MR STRINGER: Yes, I am.

269 MS STEVENS: On what basis do you say that?

MR STRINGER: I was involved in the preparation of the request for proposal by the respective bidders. I was involved in delivering the requirements that we as an agency desire. I was involved in the process of evaluation as mentioned in my report and in the process in that section of the bids from the people who provided tenders. To my mind it is the only available and best system we could possibly get.

270 MS STEVENS: When you put in a system such as this there will be retraining of personnel and a restructure of the way things are done. How do you envisage that happening? Do you have any problems, what costs will you incur and what arrangements are being made in relation to such for your agency?

MR STRINGER: I have confidence in DAIS in producing training required for my people, and while the system is driven by technical advancement it will be easier to operate than the system we have currently.

271 MS STEVENS: What about all your operators and the training they will require? Would that be significant or not?

MR STRINGER: It will be a transition from current systems and will be no different. They will not need to know how the software is working in the background, but they will be able to go to one channel and talk room and not have to change 25 times over the period of an operation.

272 MS STEVENS: You would have heard other witnesses saying that they have not had any costings or budget lines dedicated for this. Is that the case with your agency?

MR STRINGER: It is a two-part question. I am not aware of the cost to be incurred by us as an agency as we do not have that detail yet. However, I have made provision in the budget estimates to do whatever is necessary.

273 MS STEVENS: What provisions have you made specifically?

MR STRINGER: Over a seven year period we will spend $4.4 million. If we were to attempt to stay where we are we would spend at least $6 million and not have the frequencies we will have under the GRN.

274 THE PRESIDING MEMBER: Or the expeditious operation?

MR STRINGER: That is correct.

275 MR SCALZI: You mentioned that to maintain the present system it will cost $6 million. One of the advantages of the new system is improved response times. What will be the comparison in response times between the present system and the new system?

MR STRINGER: For a start the paging service delivered to units will knock 10 or 15 minutes or more off a response from a depot because people will be paged and they can respond to that. Currently, we have to phone them and we might make 25 phone calls to get eight people to respond. The paging alone will reduce our response time by more than half.

276 THE PRESIDING MEMBER: Pretty often eight minutes is the difference between life and death with the use of jaws of life and, if you are not there, people die.

MR STRINGER: Absolutely.

277 MS THOMPSON: You said that Victoria had taken up the primary band width

under the new system, but how did that occur? Did we have an option for doing that? What happened?

MR STRINGER: Yes, we did. In 1993 or earlier we were advised that the VHF band would be changing from 30 to 12.5 kilohertz. We were prepared for that to occur in 1996. Part of the driving force for GRNC relates to the need for us to change our existing service to meet the band plan changes. The existing VHF frequencies are not able to be issued to the SES unless we guarantee to the ACA that we go trunking and, as an agency, we cannot afford to go trunking so we cannot have the frequencies.

278 THE PRESIDING MEMBER: What is trunking?

MR STRINGER: It is the GRNC technology where a number of frequencies are piled together and used by everyone. It is in the interests of frequency efficiency.

279 THE PRESIDING MEMBER: Has it been your constant recommendation for these past 10 years that trunking needs to be available across Government agencies?

MR STRINGER: Yes, as we became aware of it.

280 MS THOMPSON: You were very flattering about the new system, but on what basis do you make that decision? What other systems are you aware of that might be considered alternatives?

MR STRINGER: I am aware of at least one other that might suit the requirements but it will not provide what we are getting from GRN, in particular, the ability to go from trunking back to our old simplex system. As a response agency, if the high sites fail we can return to the single radios—one to one—whereas normal trunking systems cannot do that.

281 MS THOMPSON: As a likely user of GRN do you think that is a common feature that they can return to the existing systems?

MR STRINGER: Absolutely. In an emergency or disaster response we must have radio communications at the incident area. We can do that with a fall back provision under GRNC.

282 MS THOMPSON: What are you expecting in terms of ongoing costs, given this one for one replacement or cost neutral replacement? Will you have additional requirements?

MR STRINGER: We certainly do. That has been identified in the current budget estimates to Parliament as well as through constant liaison with DAIS.

283 MS THOMPSON: Can you tell us exactly where it is in the Estimates?

MR STRINGER: It is within the Attorney-General's Emergency Services and the forthcoming Emergency Services levy.

284 MS THOMPSON: Will you provide us with the exact lines so that we can identify it in our papers?

MR STRINGER: Yes.

285 MS STEVENS: You said there was another system that could have some benefit but that GRN was superior. What process was gone through to determine that?

286 THE PRESIDING MEMBER: What process was used to select the Astro Smartzone technology? Have you knowledge of that?

MR STRINGER: Only private investigations.

287 MS STEVENS: What does that mean?

288 THE PRESIDING MEMBER: You mean with respect to the technology you have read about the options and your preference is for Astro Smartzone? Given your reading of each of those offerings in the marketplace in recent times, that is your preference?

MR STRINGER: Yes.

289 MS STEVENS: I am still not clear. You said that the proposed system was far superior, but on what basis did you or your organisation make that decision?

MR STRINGER: The other system does not provide for the duality required by Emergency Services in this State.

290 MS STEVENS: Were the providers of the other system also required to put forward a proposal?

MR STRINGER: Simplex 2 trunking cannot work in the other network.

291 MS STEVENS: Were they asked to put forward a proposal?

MR STRINGER: No. That decision was made by people other than me.

292 MS STEVENS: Who were those people?

MR STRINGER: The Government.

293 MS STEVENS: Was it DAIS?

MR STRINGER: Yes.

294 MR SCALZI: You said there was another option for a system that is comparable but that, given the situation in South Australia, the other system would not provide the flexibility?

MR STRINGER: That is correct.

295 MR SCALZI: Is your bottom line that, even though the other system is comparable, the proposed system has the added flexibility to meet South Australian needs?

MR STRINGER: I do not believe they are comparable.

296 THE PRESIDING MEMBER: Mr Stringer is saying that it is not comparable in terms of switching from trunking to simplex.

297 MR SCALZI: The other system is not an option given the South Australian situation?

MR STRINGER: I do not believe so.

THE WITNESS WITHDREW

ADDITIONAL WITNESS:

CHRISTOPHER DAVID ANTHONY LEMMER, Director, Metropolitan Operations, SA Ambulance Service, 216 Greenhill Road, Eastwood 5063, called and examined:

298 THE PRESIDING MEMBER: Please proceed with your submission.

MR LEMMER: I am Christopher Lemmer, Director, Metropolitan Operations, SA Ambulance Service, and the executive responsible for the implementation of GRN. I have been directly involved with this project since 1992. I am not a technical person and, as such, I am appearing before this committee representing the views of the service from a strategic perspective. Like the other witnesses, if necessary, we can arrange for a technical expert to appear as well.

299 THE PRESIDING MEMBER: Thank you for your offer. In the event that we seek additional expert opinion can you give us the name and contact details of the person we need to summon?

MR LEMMER: The name is Mr Stephen Bigg, who is contactable through SA Ambulance headquarters. The SA Ambulance Service operates throughout the populated areas of South Australia and responds to approximately 140 000 incidents and transports 120 000 patients annually. In country areas the service operates from 80 locations, of which 64 are staffed entirely by volunteers. The service relies heavily on radio communications to direct resources and coordinate response to emergency and routine incidents. Ambulance tasking and coordination is directed through the State Communication Centre, located within the Wakefield Street Fire Headquarters or through one of the three regional communication centres located at Port Pirie, Berri and Mount Gambier.

Our existing radio network is over 20 years old and has now effectively reached the end of its useful life. The technology is outdated and failures are becoming more frequent, with repair difficult because of the scarce availability of spare parts. The requirement for routine maintenance is increasing exponentially. Our paging network, which is relied upon so heavily by volunteer personnel, can no longer be maintained. We have also been confronted with the need to migrate to new frequencies because of Federal regulations relating to the management of the radio spectrum.

300 THE PRESIDING MEMBER: You used the word `migrate' deliberately. Is it a different process from switching?

MR LEMMER: Yes.

301 THE PRESIDING MEMBER: Will they dovetail in? Does to switch mean to drop one and take the other one?

MR LEMMER: Yes. We are now designated as a secondary user on critical ambulance communication channels and, as such, are subject to interference from primary

users. Had the GRN not been completed in all likelihood we would have already replaced our existing network. As well as addressing the liability issues of our current network the GRN will provide substantially improved coverage, increased operational efficiency, improved coordination with other emergency services and allow us to take advantage of strategic business opportunities, in particular, the network will allow us to take full advantage of the benefits that will flow from the proposed Joint Emergency Service Computer Aided Dispatch System.

The GRN will provide substantially improved personal security for our career and volunteer staff across the State. It will allow officers to discreetly notify their relevant communication centre, through an inbuilt duress system, should they be unfortunate enough to find themselves in a threatening position. The improved hand-held performance of the network will mean that officers will be able to maintain effective communications when they are away from their vehicles. The ability to communicate with other responding emergency service units will be particularly beneficial to ambulances operating in remote rural areas. It will allow the first attending unit at an incident to communicate directly with other responding units, providing accurate situation reports and, in many cases, precipitating an upgrading or downgrading of the response. The new network will also enable a crew anywhere within the GRN coverage to consult directly with a major metropolitan hospital for expert clinical advice. Likewise, operational management can communicate directly with the crew at the incident, again from anywhere within the GRN coverage area.

302 THE PRESIDING MEMBER: Those three points all represent improvements in efficiency and thus in greater public safety, especially so far as saving lives is concerned, but are you confident of that?

MR LEMMER: I am absolutely convinced of that, yes. The new paging network is urgently required, particularly for volunteer branches. The technology of our existing network, which provides a tone only alert, is outdated and replacement pagers are extremely difficult to source. The new system will, for the first time, provide on duty volunteers with instant text information on the case on which they are being tasked. The new data network proposed for the extended metropolitan area is essential for the effective operation of the proposed Joint Emergency Services CAD system. It will allow for more effective tasking of resources in the high workload metropolitan region, particularly with the inclusion of automatic vehicle location. The data network will also provide the opportunity for us to review our current business practices. With instant data transfer possible from new vehicles, billing cycles can be shortened, with resultant improvement in cash flow. Of greater benefit is the opportunity for critical clinical data to be passed between the ambulance and the receiving hospital.

In summary, the SA Ambulance Service is totally committed to and supportive of the proposed GRN. We have been involved with the planning of the project from inception and are confident that the network as planned will meet our current and foreseeable requirements. Delays with the implementation of the project have left SA Ambulance Service potentially exposed to unacceptable failures within our existing networks.

We are anxious that the project proceeds without further delay.

303 THE PRESIDING MEMBER: Those remarks are made from the point of view of the system's benefits that come in the management that is then possible once the GRN is in place, and not from any expert technical appraisal of the technology itself?

MR LEMMER: That is correct—although, as have others, I have taken every opportunity to be briefed on the technologies and to be reassured of their ability to meet our needs. However, personally, I can only rely on the advice that I have received from others.

304 THE PRESIDING MEMBER: Do you know if your technical expert did any of the kind of analysis to which Mr Stringer referred and which I have asked Mr Keddie to talk to us about next week? Has your technical expert, either in concert with anyone else or independently, examined the available technologies over the past two or three years to see how this one fits with all the others?

MR LEMMER: Yes, our technical expert has kept abreast of the technologies that are available. He has consulted with me and the executive team about those technologies. He has consulted with his colleagues in other emergency services, and he has advised us that he believes that the technology will meet our requirements.

305 THE PRESIDING MEMBER: And Astro Smartzone is the one that he prefers?

MR LEMMER: He is advised that it will fully meet our requirements. He has not expressed to me a preference for that over any other technology.

306 THE PRESIDING MEMBER: I would be interested to hear from him in writing if he believes that the technology of Astro Smartzone is superior to any others and, if it has any limitations, what they are—and, in saying perhaps that it is considered superior, why he has come to that view.

MR LEMMER: Yes.

307 THE PRESIDING MEMBER: The implications for your budget are not apparent from what you have told us this morning. We are grateful, of course, that any of us who might need an ambulance service, given this new technology is in place, will be safer in consequence, but we would like to have some knowledge of the budget implications to satisfy ourselves that it is in some measure worthwhile.

MR LEMMER: Yes. We have been assured by DAIS, and through our negotiations with Treasury, that the intention is that the implementation of the network and the ongoing maintenance of that network will be budget neutral to our agency based on our current level of service provision and, as such, we have not provided any specific budget line for that matter.

308 THE PRESIDING MEMBER: And you are satisfied that your current service provision level is as good as costs enable it to be?

MR LEMMER: Yes. We certainly are aware of other business opportunities that we would like to explore, but we would do those subject to separate business cases.

309 THE PRESIDING MEMBER: Once it is in place?

MR LEMMER: Yes.

310 MS STEVENS: A few moments ago I believe you said that your technical expert had been advised that the Astro Smartzone technology was superior. By whom were you advised?

MR LEMMER: No, I do not believe that he has been advised that it is superior. He has examined the technology and is confident that the technology meets our requirements. As an organisation, we did not deliberately attempt to find other technologies that might also meet those requirements: we were advised that that one would meet the requirements.

311 THE PRESIDING MEMBER: And he will write to us by next week?

MR LEMMER: Yes.

312 THE PRESIDING MEMBER: You gave me that commitment, and I am relying on that. That is a fairly serious thing.

MR LEMMER: Yes.

313 MS STEVENS: By whom was he advised?

MR LEMMER: I cannot give you the specific details of the people. I am happy to include that: as to how he has received his brief.

314 THE PRESIDING MEMBER: Let me make it plain. I am asking for his independent expert opinion of that matter. Other people can give their expert opinion and, if there is substantial difference in that expert opinion, the committee will naturally have to make wider and further inquiries to get better particulars about it and resolve the variation. If not, the committee can be satisfied that, in the public interest, that is correct. The other matter to which I believe Ms Stevens is referring is the process by which it was selected. That is not a problem for you or your expert.

315 MS THOMPSON: In your statement you indicated that, had the GRN not been contemplated, in all likelihood we would already have replaced our existing network. As a person who knows about the strategic directions of this service, how would you have gone about doing that?

MR LEMMER: The only thing that we would have considered at the time was replacing the network with one of similar function. It would not have met our future strategic objectives, but if no alternative was available we would have had no choice but to seek to replace like with like. I have a personal view that it would have been a waste of money to do that, because of the emerging technologies, but at that stage, like others, we had been marking time for a number of years on this issue. We would have been considering this issue back in the early 1990s—from 1992, 1993 and 1994 on. So, we have marked time and had to make do with the technology we have whilst these other technologies have been further advancing in that period.

316 MS THOMPSON: So, from your perspective, has the delay (no matter how unwelcome it might have been) ended up as an advantage or a disadvantage to you?

MR LEMMER: Fortuitously, I believe that it has ended up as an advantage with respect to the technology that we are likely to end up with. I believe, though, that that would have to be weighed up with the risk that has been exposed during that period of delay. As it has eventuated, to this point, that risk has had no catastrophic impact on public safety. However, the potential is still there between now and implementation.

317 MS THOMPSON: You also mentioned the benefits of this in terms of a duress situation and, in evidence that the committee received today in written form, Correctional Services also mentioned the benefits of the duress alarm. Can you tell us more about how the duress alarm works— where people would normally be carrying this equipment if they were away from their vehicle?

MR LEMMER: Yes. The ambulance officers have a radio in the vehicle and also have a portable hand-held radio, which they carry on their belt or in their hand. The radios are equipped with a duress button which, once pressed, sends a signal to the communications centre, which identifies the unit that is sending the signal and identifies that the crew is in trouble.

318 THE PRESIDING MEMBER: But it does not have a GPS on it.

MR LEMMER: No.

319 THE PRESIDING MEMBER: The new one will.

MR LEMMER: Yes. Ambulances certainly have proposed automatic vehicle location—which, because we identify the radio number and the unit, would then be able to identify the vehicle. However, automatic vehicle location is only proposed within the greater metropolitan area. But, of course, in country areas we know where our units are; we know where we have sent them. In the metropolitan area, where it is more critical because of high workload, automatic vehicle location is important. But in rural areas it is important simply to know that the officer is in difficulty, and we can raise the alarm.

320 THE PRESIDING MEMBER: You mean you know where you think he is.

MR LEMMER: Yes—we hope we know.

321 MS THOMPSON: In relation to the cost issue, you said that you have accepted assurances that it is cost neutral. That does not seem to have been the experience with respect to other contracts—I believe the EDS contract, for instance: certainly, the agency in which I was working did not find the EDS contract cost neutral, and a number of agencies have given evidence to various parliamentary committees on that matter. Can you tell me more about why you have that belief, in the face of other experiences?

MR LEMMER: I would not be honest if I did not say that that has not been one of the major significant concerns throughout the negotiation—to assure that it is cost neutral for our organisation. We can only take the assurances of the people who are providing that information to us. The funding of the South Australian Ambulance Service is different from most other agencies that are represented here today and, to some extent, we are responsible for recovering our own costs through our fee structure. If the outcome were to be that it was not cost neutral to us, we would be severely embarrassed and would not be able to meet the additional cost that would be likely to come from the implementation of the new technology. We have to take on face value the assurances that the network will be like for like, which is acceptable for us, and in fact will be cost neutral for our budget. We have not been advised as to how that is to be achieved— whether it be would be through Government grant or through fees. We have no indication yet of how that cost neutrality would be achieved.

322 MS THOMPSON: So, you do see a possibility that you might need some topping up in order to maintain that cost neutrality?

MR LEMMER: If we are to meet the cost, absolutely we would need topping up. If it were to be provided at no cost, we have not been advised as to how the funding would be distributed.

323 THE PRESIDING MEMBER: We have to accept that that is a statement that has been made by both Ministers and Treasury officers. The commitment is there and the Government will be accountable if it fails to deliver on that commitment. I do not believe we can expect Mr Lemmer to vouch for it and look into a crystal ball—or whatever other kind of ball he has.

324 MS THOMPSON: So, your agency would be in a position to identify any impact on its budget?

MR LEMMER: Absolutely.

325 MS THOMPSON: And be able to ensure that that guarantee was maintained?

MR LEMMER: Yes, absolutely.

326 MR SCALZI: Given the assurances of the cost neutrality of the Government system and the present system, with respect to the new system, the emergency response will be much greater than the present system by how much, in your opinion?

MR LEMMER: That is a very difficult question, with respect to quantifying that. With respect to the areas of volunteer response it will be significantly better, because of the paging and the greater coverage that the network provides.

327 THE PRESIDING MEMBER: So, you are saying that, really, it would have the same benefits as accrue to the SES?

MR LEMMER: Yes, that is right. The benefit would differ according to where we are at. The metropolitan area has different needs.

328 MR SCALZI: So, if the cost neutrality were maintained, in time it would be considerably better off?

MR LEMMER: Yes.

THE WITNESS WITHDREW

ADDITIONAL WITNESS:

MICHAEL CHARLES BENTLEY, Director, Operations, Metropolitan Fire Services, 199 Wakefield Street, Adelaide 5000, called and examined:

329 MR BENTLEY: I have been an operational firefighter for 27 years. I am also currently the Chairman of the Government Emergency Service Organisations Committee for the Government Radio Network (GESOC). GESOC was convened in mid 1996 to provide an emergency services senior executive focus during the development of the request for proposal for the GRN and, importantly, to ensure that data provided by the operational teams accorded with the agencies' operational requirements. I might add that those teams also included financial and technical teams. So, from our organisation, we would have two or three technical people who assisted in the development of the RFP. And, a bit like Mr Lemmer, I can say that I am a technical Luddite, but the people reporting to me could guarantee that the technical and financial sides are being addressed as part of that the RFP.

330 THE PRESIDING MEMBER: You have satisfied yourself that all that stacks up?

MR BENTLEY: Yes. So, it is fair to say, then, that the emergency services were fully consulted regarding the project and, indeed, had significant input into the final design of the network. The final design features accorded with emergency services operational needs and, as such, ensured that radio requirements of other Government agencies connecting to the network would be well within scope. The South Australian Metropolitan Fire Service continues to support the proposed Government Radio Network. We need to access an appropriate radio communications platform able to satisfy our operational radio, data transmission and paging obligations and the important agency interoperability capability not presently available. The implementation of the Government Common Radio Service Computer Aided Despatch System also needs a radio platform capable of transmitting emergency service voice and data messages to our appliances and stations throughout the State. The existing SAMFS communications networks and equipment are currently just adequate for our operational needs. However, they are limited in range, reliability, functionality and do not provide agency inter-operability which is particularly required at major incidents.

331 THE PRESIDING MEMBER: How secure are the security aspects of the confidentiality process?

MR BENTLEY: It is certainly not as great a need for us as it would be for ambulance or police. It would certainly be of benefit in the transmission of messages, especially dealing with serious accidents or fatalities.

Additionally, the radio equipment used by the fire service is nearing the end of its economic life as progressive replacement was halted in anticipation of the GRN. I am of the belief that the GRN project offers a cost efficient radio/data/paging solution when compared to agency specific solutions. A dedicated MFS radio/data/paging system would

require the purchase of 148 new mobile and 22 portable radios, 71 mobile data terminals and 263 pagers, and would need the acquisition of a licence from the Australian Communications Authority to operate as a primary user within frequency band allocation.

332 THE PRESIDING MEMBER: Would you have any difficulty getting that?

MR BENTLEY: I do not believe there would be any difficulty because it would be an efficient use of the spectrum. A dedicated system would only provide the fire service with a radio/data/paging system equivalent to the existing system at a cost, in my understanding, equivalent to or greater than the forecast GRN associated costs for the SAMFS. I am not aware of any other viable alternatives to the GRN proposal that would satisfy the operational obligations of the fire service and the critical requirements for agency inter-operability. With the current MFS radio network, crews at Elizabeth who may be called to a major incident at Port Stanvac, for instance, cannot talk direct to appliances at the scene. Indeed, there are areas in and around Port Stanvac and other sites throughout the metropolitan area where even our dedicated communications centre cannot talk to those appliances.

There have been three major incidents of recent times with which I have been personally involved: an oil tank fire at Whyalla, a silo fire at Port Adelaide and a serious fuel fire at Port Stanvac. At each of those incidents, existing radio systems proved to be inadequate to the extent that mobile telephones were employed to transmit vital operational information to our communications centre using the emergency 000 number. It should be noted that existing requirement for the emergency services to migrate to a new radio/data/paging communications platform is not an emergency service initiative and is driven by the Australian Communications Authority's decision to deregulate the telecommunications industry in 1997.

The ACA has commenced implementation of a broadband network strategy including auctioning of frequency band allocation within the radio spectrum. The ACA broadband network strategy is based on aggregation of telecommunications traffic to achieve savings through economy of scale; leveraging of agency owned infrastructure that may be attractive to private carriers for alternative commercial networks; and increasing opportunities for private sector and community involvement in the new network. The sale of frequencies within the frequency band in South Australia commenced in July 1998, and emergency services remaining on frequencies sold will then become secondary users. This status will render them subject to radio interference from primary users and this has already occurred in the Mount Gambier region. Such a situation is unacceptable for the provision of emergency service delivery to the community as radio usage must be available on a guaranteed basis. The restrictions placed on frequency band allocation and licensing for future use resulting from the Australian Communications Authority radio review dictates that a `do nothing' option for the emergency services is not a viable alternative.

Finally, I reiterate the SAMFS position: we continue to support the implementation of the Government Radio Network to provide access to an appropriate radio communications platform that will satisfy our operational radio, data transmission and paging

obligations, including the important agency inter-operability requirements. The SAMFS believes that the services available with the GRN will improve our communications and importantly enhance our emergency service delivery to the community.

333 MS THOMPSON: I was interested in your comments about problems around the Port Stanvac area. Living up the road from there, I know that about a third of the time I do not get proper television reception when there is a tanker in, and I also know that my car phone does not work on the Reynella bypass or on sections of the expressway. Is that the sort of problem you are experiencing?

MR BENTLEY: Our problems are not associated with anything to do with tankers. However, they are associated with critical areas which identify the delays through the process of developing the request for proposal (RFP). During the development of the RFP, the agencies—and some of my colleagues here today have been involved in the same teams as I—were to let the Government know where those critical areas are. At the refinery fire at which I was Incident Commander, I had to use a mobile telephone to talk to our communications centre because the radio system would not work.

334 THE PRESIDING MEMBER: Will the technology proposed in the Astro SmartZone transmit in an ionised atmosphere?

MR BENTLEY: I am a technical Luddite but I have been guaranteed that what we have put up to the GRN as operation requirements, including the ability to talk to Port Stanvac, will be satisfied.

THE WITNESS WITHDREW

ADDITIONAL WITNESS:

JOHN WADE PRATT, Forestry Development Officer, Forestry SA, Department for Administrative and Information Services, 3/245 Fullarton Road, Eastwood 5063, called and examined:

335 THE PRESIDING MEMBER: Would you commence your submission?

MR PRATT: I am a member of the current radio network transition team.

336 THE PRESIDING MEMBER: Are you a forester by training?

MR PRATT: Yes, but I am not a technical expert.

337 THE PRESIDING MEMBER: Do you have a technical expert in Forestry SA?

MR PRATT: We do not. I think I can claim at least a little bit better than a layman's understanding of some of the technology, but I do not lay claim to expertise. I have some background information on the first page which I will not go through in detail, except to say that Forestry SA provides a range of services both to do with plantation and native vegetation, and this is across three regions: principally the South-East, but also the Adelaide Hills and the Mid North. We have been involved in moves towards a Government Radio Network since at least 1989. We have participated in these projects and particularly GRNC, acknowledging, as was mentioned before, changes to the VHF band structure, the increasing age and the high cost of replacement of our equipment. Knowing that a new system is coming, we have kept expenditure on new equipment to an absolute minimum, which has meant increasing age. We need greater compatibility and integration with CFS. All our work units are brigades of the CFS. We need to meet occupational health and welfare obligations and we believe that the more complete coverage offered by GRNC will help us in that.

338 THE PRESIDING MEMBER: That is not just about fire control: it is about operational staff in forests?

MR PRATT: Forestry SA really has two basic needs, first, its ordinary operational needs and, secondly, its emergency needs, which usually involves fire suppression. We also acknowledge the potential benefits from paging, data transfer, telephone interconnect, the pre-determined talk groups and the option for one to one radio communications that the GRNC will offer. We have detailed our functional requirements. I do not think I need to go into every detail here except that we have specified the areas over which we need radio coverage and that, at fires, there are basic needs of communication between vehicles at the fire and communicating from the fire to control and administrative centres.

I would underline what has been stated previously that Simplex communications are essential for fire emergencies. We have a requirement for interagency communication. I have mentioned CFS, and there is also National Parks and Wildlife, Police, SES and CFS. In the South-East, across the border with the CFA, there is the Victorian Department of Natural Resources and Environment and the major private forest companies.

There is also a need for continuing ability to communicate with CFS groups and CFS regional offices. We must have the system and equipment maintained during the fire season. I have mentioned occupational health and safety. There are some constraints that cause us a little bit of concern. One is the attenuation of the frequencies that are to be used for the Government Radio Network through large areas of relatively flat pine plantations, as needles can act as miniature antennae soaking up radio waves. We need to have demonstrated to us that the GRNC will meet our communication requirements before we can commit ourselves to it, but I must say that our expectation is that in 95 per cent of the locations for which we require coverage we will get it, and we have been asked to provide lists of critical places where we must have radio communications. We will be providing a list of about 180 such locations in the South-East and at least 20 in the Adelaide Hills.

Another constraint that Forestry SA has is that it must migrate to the Government Radio Network at the same time as the CFS. The key success factors against which we will judge the GRNC is that we get the coverage, that we meet or exceed the specified needs, that users can quickly and reliably contact the persons and groups whom they need to contact, that we have the communications with the other agencies which I have mentioned, that we also have the access to telephone interconnect and mobile data transfer as promised, and that costs are acceptable.

339 THE PRESIDING MEMBER: During the course of your remarks, you said that you believe that the technology will meet your needs but that you will make some further assessment of that. Am I correct in understanding you to have said that?

340 MR PRATT: The Government radio network project team has, all the way along, been well aware of any reservations that it might have about communications in its pine plantations. We have an expectation that it will be demonstrated to us that the service that is to be provided will meet our needs.

341 THE PRESIDING MEMBER: In fact, it is vital that that is done.

MR PRATT: That is correct.

342 THE PRESIDING MEMBER: It would be pretty useless to buy a system which you later found would not work.

MR PRATT: That is correct; that is why we have been quite up front about it.

343 MS STEVENS: Point five on page three of your presentation relates to your constraints regarding the GRNC. You said that the ability must be demonstrated before Forestry SA will commit itself to adopting services under the GRNC.

MR PRATT: Yes.

344 MS STEVENS: When do you expect that demonstration to occur?

MR PRATT: I do not know. I do know that the project team has plans to do just that. Preliminary trials will be carried out in the very short-term future.

345 MS STEVENS: You understand that if it does not meet your requirements you can opt out?

MR PRATT: We have made it very clear to the GRNC project team that we cannot commit ourselves until the service meets our needs, and that is what we expect, rather than have to seek another service provider.

346 MS THOMPSON: You say that success will depend upon acceptable costs, among other factors. What costs are you anticipating?

MR PRATT: We are expecting the cost of equipment and costs of accessing the system. However, I reiterate what has been said previously: that all agencies have been given an undertaking that the migration to the system will be cost neutral. How that will apply exactly to us, being a Government business enterprise, is yet to be negotiated.

347 THE PRESIDING MEMBER: You have been given that assurance?

MR PRATT: Yes, we have.

348 MS THOMPSON: Do you have any existing transmitters on land that you own or control?

MR PRATT: Yes; we have our own networks in the Mount Lofty Ranges and in the Mid North.

349 MS THOMPSON: Is it likely then that some of those will need to be removed and the area rehabilitated?

MR PRATT: What is most likely is that at least some of those sites, if not all of them, will be with the Government radio network.

350 MS THOMPSON: So, you are hopeful that you will not be facing large rehabilitation costs?

MR PRATT: I do not think rehabilitation is a particular issue, because most of these sites have had towers on them for decades.

351 THE PRESIDING MEMBER: They are on forest land, anyway.

MR PRATT: Yes.

352 THE PRESIDING MEMBER: I guess what Ms Thompson is getting at is that if they were in native bushland, or something, they would be pulled down and tidied up, but that is not the point.

MR PRATT: That is not the indication.

353 MS THOMPSON: You also mentioned the need to be able to have quick communication with forest companies in the Green Triangle. Is that requirement being satisfied at the moment?

MR PRATT: I imagine that that will be catered for by those companies that are also brigades of the CFS. They would have CFS communications, and I mentioned that we and those private companies would migrate to that system together.

354 MS THOMPSON: When will you have that situation clarified? You said that you imagined that that is how it will be.

MR PRATT: I am sure it will. I am talking about CSR Timber Products and Auspine, which are currently CFS brigades and which presently have access to CFS communications—and indeed will have in the future.

355 MS THOMPSON: So, that is the requirement to which you are referring: in critical incidents you will be able to communicate directly?

MR PRATT: Yes.

356 THE PRESIDING MEMBER: I guess, without wanting to steal your thunder or shoot your foxes, as it were, you are left in a fairly strong negotiating position: given that you are a Government enterprise and own a number of the sites which the Government radio network requires already, in order to ensure that the cost effect on your bottom-line profit is neutral in accordance with Treasury's requirements, your bargaining chip is, `If you charge us for that we will slug you more for the sites'; is that fair comment? You are fairly well protected. You are not going to be screwed?

MR PRATT: Yes.

357 THE PRESIDING MEMBER: Would you like to add anything else?

MR PRATT: No, Sir.

THE WITNESS WITHDREW

ADDITIONAL WITNESS:

RICHARD BARRETT, Radio Enthusiast, GPO Box 10, Adelaide, called and examined:

358 THE PRESIDING MEMBER: By way of explanation, you have written to us, as a committee and as members of the committee, expressing your concern about aspects of the logistics: where, I guess, the new system will fit together or fail to fit together in providing services that we are told we can expect from it. The committee has therefore called you to give that evidence to us on the public record so that we can both ask you questions about it and refer to it in the course of our deliberations. Can you therefore begin and tell us something of your background experience and qualifications in the use of radio telecommunications, and then tell us what you will about the proposal as you see it?

MR BARRETT: I am not a technical expert by any stretch of the imagination. I have little or no technical knowledge. I have made reference to certain training in communication matters in the written correspondence you have, so if you wish to pursue that line I have to ask that that be *in camera*. I would have to insist on that: I would not discuss it in open meeting.

359 THE PRESIDING MEMBER: We will come to that later.

MR BARRETT: Eleven years ago I first heard of the whole of Government approach to radio, which seemed a very good and logical idea. I could see that it would not happen overnight but that it would take time because of the differing requirements of different agencies and departments, and sometimes vastly different requirements within a single agency or department. Debate about whole of Government went on for some time until it received the impetus of the ACA's changes to spectrum planning usage, which hurried up the matter very quickly—otherwise, I suspect, the debate would still be going on. I have heard the views of the emergency services representatives this morning.

I agree with the general impetus that most have out-of-date equipment, and that many of them cannot adequately achieve what they need to achieve—quite apart from things they would like to achieve. What is the Government radio network going to be? I am trying to find out and no-one can tell me what departments or agencies will or will not be included. No-one seems to be able to tell me what will happen—as the bulk of the usage would certainly come from emergency services—with, say, St John Ambulance as opposed to SA Ambulance, which currently has its own radio set-up. St John Ambulance has two frequencies slap in the middle of the St John's HF allocation.

How would that organisation get into the new system? Would it be told, `You are coming in and paying for it,' or, `You are coming in and we will pay for it.'? I intended to raise questions about the South-East but I think that the forestry representative more than adequately covered them a short while ago. I had not realised that all of what essentially forms portions of Forestry SA, which are now commercial enterprises, are also registered CFS brigades. They are already within the system. I did have concerns about those. In endeavouring to find out who might be included in the proposed Government radio network, I had to find out, first, which Government organisations currently have radio

systems. It appears that no-one can tell me so I did my own research.

First, I looked at high frequency, which is basically used in and for contact with remote areas. From the evidence given today, it would appear that the proposed GRN will not cover large geographical areas of the State. That was not detailed today, but I am assuming that if you are within or close to a local government area you will be covered by the GRN: if you are in the other 83 per cent of the State not covered by local government you are possibly outside proposed GRN coverage.

360 THE PRESIDING MEMBER: On evidence given, it is highly probable that such areas would be covered. The population centres outside the declared Hundreds in the counties—population centres, then, in the outback—are, in fact, covered. There are locations to be covered by the GRN. There will be located within each of those centres, such as Coober Pedy, Marla, Yalata, and so on, the transmission provision which will simply have a radius around it that is adequate to cover most of the people who live and work there. If you are in the hinterland, if you want to call it that, the wilderness, again those centres and outside the counties will not be covered—you will be on a wing and a prayer.

MR BARRETT: Which means, as I am suggesting, that the existing HF networks and links will have to be maintained—GRN will not replace existing Government networks.

361 THE PRESIDING MEMBER: There is no proposal, nor intention, that it will. You are right.

MR BARRETT: This is one of the things I have been trying to find out but I have not had a great deal of success. The general attitude of people I have spoken to seems to be, `Yes, this is a wonderful Government radio network. It will replace everything we have. There will be no cost beyond it.' I am suggesting that there will in fact be significant costs. For example, in the Yalata and Coober Pedy areas, Education and Children's Services, I believe, must retain HF systems, if for nothing else than to talk to the Royal Flying Doctor.

362 THE PRESIDING MEMBER: Do you then think that it will cost any more than it does now? The airwaves are still there.

MR BARRETT: From evidence given today it seems that little if nothing has been done in recent times (in one case eight years) to radio equipment. The HF equipment is on its last legs, as is the current VHF equipment. Yes, I think that those costs will carry on, but that is a very minor part of it. Various agencies are involved: National Parks, Police, State Emergency, Primary Industries and Roads and Transport. All these agencies have HF in outback areas. In most cases I do not believe that the GRN will be of any help to them for voice communication: they will have to maintain their HF. As to existing VHF networks, they are many and varied in location, size and complexity. Almost all voice, data and paging systems that exist currently are stand-alone set-ups. Hospitals, of course, have many in-house data needs. The Royal Adelaide Hospital, for example, has a nice chunk of radio spectrum for

sending data to and from equipment within the hospital. I do not believe that that will be replaceable by the GRN. I could be proved wrong but I do not think it can.

363 THE PRESIDING MEMBER: It is not proposed to.

MR BARRETT: I am slowly finding out what is not. That is Government and will not be part of the network. You come back to the proposed network, which will serve two purposes: voice and data transmission. Data transmission is, in this day and age, highly critical. Essentially they have not assigned enough frequencies to it. The growth of demand for data used within Government services will grow at a massive rate, particularly in emergency services. That has been an assumption and today and an explicit suggestion.

364 THE PRESIDING MEMBER: Just before we leave data communications, I understand that most of the data would be transmitted by land line cable optic fibre and could still be transmitted in the same way.

MR BARRETT: I am talking of current radio frequency usage and not land line. It has been said here by one emergency service representative—I do not recall which one—that there would be security by implication and that security arose from the digital transmission form proposed for the Government radio network. There are two problems there: first, digital is not secure. Some may believe it is, but it is easily accessible. Secondly, trunking is more than easily accessible with any individual unit by somebody with a radio signaller. This morning on the Internet I took three minutes to get into and download three programs for monitoring the Government of New South Wales radio network—the same system as proposed here. Is it to be digital? I do not know. There seems to be confusion among users as to whether it is or not.

I went to Canberra yesterday and looked at the licences obtained by DAIS for this new system and they have 100 channels all for plain voice analog and not for digital. Is it to be analog or digital or a combination of the two? If it is digital or a combination you are adding another level into a system which, in the New South Wales system so far that is almost entirely analog, is highly questionable. The more channels you have on the system the more likely you are to have problems. From inquires I have made in New South Wales in the past four or five days, the police refuse to know about the system. The State Rail, apart from minor public address usage, will not touch it and will not risk the safety of its trains or signalling system to it.

365 THE PRESIDING MEMBER: What are the technical reasons for those decisions?

MR BARRETT: It was expressed to me by a radio operator in a large Government agency in Sydney that the experience so far in drop-out on the system means that for no other reason than a health and welfare viewpoint those agencies will not commit themselves to the system. They do not want to know. Going backwards, one thing that has not been covered here today with regard to existing systems is that the CFS initially referred to

having a backup to the Government radio network. I can only assume that that backup will be the existing system, to be maintained alongside the proposed system. Certainly that is the experience in New South Wales, but they did not have a system for rural fires in New South Wales and every council did its own thing. They got the network into the Rural Fire Service and it fell apart so quickly that it set up its own radio system for rural fires. They decided that it was the only way to have control of fire ground at the coalface. They could not rely on the GRN. They found the money and set up a radio system. They have effectively done, following the introduction of their State's GRN—the system proposed here—what this State did many years ago, namely, upgraded, as we did after Ash Wednesday.

The other point relates to the existing police 64 channel system, which is a national standard agreed to by Police Ministers and Commissioner's following Cyclone Tracey 20 odd years ago when all the police services, particularly South Australia's police service, turned up in Darwin and found that nobody could talk to anyone else because they were on different radio systems and frequencies. The system has worked well, albeit with problems. It is not secure, but there is only one secure radio system and no Government will spend the money on it, namely, full digital protection. If the police go to GRN here and abandon the existing system, how will they conduct on the ground operations with other States along their borders and moving well into another State?

Reference was made earlier by the CFS representative to the intercommunication with the Victorian agency. It has gone to a Government radio network of sorts in the 161 to 164 megahertz range over the past two or three years, and in recent times the CFS in the South-East of the State and border areas have quite rightly purchased new sets which allow them to talk to the Victorian CFS. I could go on giving examples. However, I will not go on. They are my overall concerns.

The one area I have not mentioned, but will do so within two minutes, is that of security. There is no such thing as a secure radio system unless it is digital voice protection, courtesy of Motorola, and that is 21 year old technology, but it works. It works because like many of the modern systems it is not computer designed and controlled. It works on a purely mathematical basis. The code is one in 10 to the power of six for DVP. Mathematically, for a computer to break that but at the lower levels of encryption, it is much easier. Even a home computer can break into the system. In theory digital systems cannot be monitored. In fact, the equipment is currently available to monitor digital systems. It is very expensive and not generally available, but is there and within three years it will be down to 1 500. The best security one can have in any radio communication system is twofold: first, to keep the system simple so you do not have foul ups and when you do that they do not affect too great a part of the system; and, secondly, to train the people using the system in not only how to use it but how not to use it.

366 MR SCALZI: In the opening of your presentation you said:

I am no expert in radio technology nor in the perceived radio communication system of the Government or its agencies. However, I have difficulty in coming to terms with what I believe is proposed for the South Australian

You stated that you are not expert, but you have gone on to comment in an expert way on a lot of the agencies. Can you tell us what experience qualifies you to make the statements you have made?

MR BARRETT: In respect to South Australia?

367 MR SCALZI: In general.

MR BARRETT: I can answer the question in respect to South Australia. The answer is `many years of listening to radio receivers'.

368 MS STEVENS: What do you mean?

MR BARRETT: I used to sit back with the press. I was in the media and was the second person in South Australia to have a scanner. I found it useful, although not that useful. At times it was a hindrance. Because of other things in my background I made scanning somewhat of a hobby and I was using it at home. It is most entertaining and informative.

369 THE PRESIDING MEMBER: Notwithstanding any of that, how does that relate to our inquiry?

MR BARRETT: I have for some 13 years now, since the predecessor to the Australian Communications Authority, made available publicly data on frequency allocation and usage and produce books each year which effectively are a translation of Canberra data into a useable and readable form for the media, scanner listeners and emergency services who purchase from me. Today I rarely produce a book as everything goes onto CD-ROM. Canberra produces the data, I turn it into plain English and correct the many hundreds of thousands of errors in the data that I can see and reproduce it for people in the industry to use. I am aware of where ACA and frequency usage is today because I know of frequency allocation in Australia, have read every one and each year I read every line of those quarter of a million allocations a minimum of five times so that I know where the things are.

370 MR SCALZI: There is no question of your interest in the area, but as a committee are we to know that you have no formal experience in any of the agencies or bodies that assess this type of technology?

MR BARRETT: I have no experience in bodies that access this type of technology. Are you referring to the agencies that will use the system?

371 MR SCALZI: Yes.

MR BARRETT: I did serve for some time in the CFS some years ago.

372 MR SCALZI: In what capacity?

MR BARRETT: Communications officer.

373 MS THOMPSON: Mr Barrett, you mentioned that you thought there would be a growth in demand for data transfer and were concerned that not enough frequencies had been allocated for this. Does that refer to an increasing desire to distribute graphics to police vehicles such as the graphic of a wanted or missing person?

MR BARRETT: I am not familiar with exactly how they would propose going about it. I am familiar with the concept. The sending down of a graphic is not the same thing. The receiving unit's quality of reception determines the picture you will get. If the police want to send a studio quality reproduction to a number of patrols, the equipment in the car will have to be capable of interpreting and reproducing that and they had better have some time of their hands to send it down because the more complex it is the longer it will take, no matter what system is used. As the Chief Inspector intimated, they need access to data. A patrol on the street could stop a vehicle and want information on the vehicle and driver. The operator could use a handset or go back to the car and call communications on the voice channel and ask for this and that. The communications operator will key in information but it all takes time. As to the current system with MDTs in cars, the officer can access the police information management system and other systems—three at the moment, I believe—but they should be able to access more if they are to get the best use out of that technology and do their jobs as best they can.

374 THE PRESIDING MEMBER: I advise everyone who has given evidence this morning and who has undertaken to supply information to do so by next week and we will advise if we require to see you next week.

EVIDENCE TAKEN IN CAMERA

THE WITNESS WITHDREW