PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

JOINT COMMITTEE OF PUBLIC ACCOUNTS

REPORT 317

A champagne appetite but only a beer income - A Report on an Inquiry into the Department of Defence's Computer Redevelopment Program, the Supply Systems Redevelopment Project

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1. Appointed 6 March 1991
2. Discharged 6 March 1991

DUTIES OF THE COMMITTEE

Section 8(1) of the *Public Accounts Committee Act 1951* reads as follows:

(a) to examine the accounts of the receipts and expenditure of the Commonwealth including the financial statements transmitted to the Auditor-General under sub-section (4) of section 50 of the *Audit Act 1901*;

(aa) to examine the financial affairs of authorities of the Commonwealth to which this Act applies and of inter-governmental bodies to which this Act applies;

(ab) to examine all reports of the Auditor-General (including reports of the results of efficiency audits) copies of which have been laid before the Houses of the Parliament;

(b) to report to both Houses of the Parliament, with such comment as it thinks fit, any items or matters in those accounts, statements and reports, or any circumstances connected with them, to which the Committee is of the opinion that the attention of the Parliament should be directed;

(c) to report to both Houses of the Parliament, any alteration which the Committee thinks desirable in the form of the public accounts or in the method of keeping them, or in the mode of receipt, control, issue or payment of public moneys; and

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and include such other duties as are assigned to the Committee by Joint Standing Orders approved by both Houses of the Parliament.

PREFACE

This Report presents the Committee's findings and recommendations on one of the more complex and technical inquiries to have been conducted by the Committee. The Inquiry has required the examination of a number of difficult information technology issues upon which even experts could not agree.

Cognisant of the complex nature of the Inquiry, the Committee has sought to write this Report in a manner which is comprehensible to those who do not have expertise in the information technology area. The Committee was of the view that to present a great deal of technical information would be counterproductive. For those interested in pursuing technical matters raised during the Inquiry, copies of transcripts of evidence and submissions may be obtained from the Committee's secretariat.

In relation to this I note that during the Inquiry the Parliament's Sound and Vision Office commenced a trial of loading transcripts of committee hearings onto the Parliamentary Database. The availability of the transcripts of the Inquiry into the Supply Systems Redevelopment Project on the Parliamentary Database has been of considerable assistance to the Committee and the Committee congratulates the Sound and Vision Office on this initiative.

The Inquiry was commenced by the Committee's predecessor in the 35th Parliament but not completed due to the 1990 federal election. The election had a significant impact on the Inquiry and set back its progress by many months. With the resumption of the Inquiry new members of the Committee were required to address a range of issues - some of which had confronted the previous Committee and some of which arose subsequent to the election.

With the finalisation of the Inquiry with this Report, it is to be noted that, as with all inquiries by parliamentary committees, changes in the area of investigation occur not just because of a report and its recommendations but because of the raising and consideration of issues during an inquiry. This has undoubtedly been the case with the Inquiry into the Supply Systems Redevelopment Project.

The Committee is of the view that this Inquiry has contributed significantly to the progress of the Supply Systems Redevelopment Project and moreover, to the level of commitment the Department of Defence and the three Services have to the Project.

The Inquiry has been a catalyst for the introduction of the UNIX operating system onto the DESINE Contract. It has given prominence to the issue of ANZ content, stemmed a significant leap in the prices of software paid by the Commonwealth and led the Department of Defence to clean up those parts of the DESINE Contract known as the Defence Standard Product List and the Addendum.

While this Report is critical of Defence's management of the DESINE Contract and the Supply Systems Redevelopment Project, the Committee is of the view that acceptance of its recommendations will lead to better management of large scale Defence projects and associated contracting. In the case of the Supply Systems Redevelopment Project, it would appear to be just too ambitious - something acknowledged during the Inquiry by a Defence witness who described the Department's approach as one of pursuing 'a champagne taste on a beer income'. If one thing is clear from the Inquiry, it is that there should be no more contracts like DESINE.

Inquiries such as this require the work of many people and I take this opportunity to thank the previous Committee and its Chairman, the Hon. R E Tickner, MP, and the Committee's Sectional Committee A for their work. I also thank the Parliamentary Library and the Parliamentary Research Service and for their assistance and last but not least, I thank the Committee's secretariat for its contribution to the Inquiry. In particular, I thank the Committee's two information technology advisers - Mr Brian Hendy, who was seconded from the Australian Taxation Office, and Mr John Wood from the Australian National Audit Office.

Hon G F Punch, MP
Chairman

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LIST OF ABBREVIATIONS AND ACRONYMS

ADF	Australian Defence Force
ADP	Automatic Data Processing
AIX	Advanced Interactive Executive (IBM's UNIX)
ANZ	Australian and New Zealand
AUTOPROC	Automated Procurement
AUTOQ SSRP	Army Quartermaster System
BRWG	Business Review Working Group
CENCAT	SSRP Central Cataloguing
DEFMIS	Defence Financial Management Information Systems
DEPOT/BASE	SSRP Depot and Base System
DESINE	Defence EDP Systems Integrated Network Environment
DFDC	Defence Force Development Committee
DSPL	DESINE Standard Product List
FSRP	Financial Systems Redevelopment Project
GMSSR	General Manager Supply Systems Redevelopment
GOSIP	Government Open Systems Interconnect Profile
HLID	*High Level Integrated Design*
IBM	International Business Machines
IDC	Interdepartmental Committee
IT	Information Technology - IT is now used instead of ADP
JCPA	Joint Committee of Public Accounts
LAN	Local Area Network
MIMS	MINCOM Information Management Systems
MINCOM	Australian software company which markets the MIMS package
MSRP	Manpower Systems Redevelopment Project
OA	Office Automation
OS/2	Operating System for microcomputers
OSI	Open Systems Interconnect - a set of standards for computer networks
PC	Personal Computer
POSIX	Portable Operating System Interface for Computing Environments
PSI	Prime Systems Integrator
RAM	Random Access Memory
RFT	Request For Tender
SAA	Systems Application Architecture
SLIMS	Ships Logistics Information Management Systems
SNA	Systems Network Architecture
SPECTRUM	Proprietary System Development Methodology
SSRB	Supply Systems Redevelopment Branch
SSRP	Supply Systems Redevelopment Project

UNISYS	UNISYS is an information technology company
UNIX	Universal Executive - a non-proprietary operating system
WLAN	Warehousing Local Area Network
X/OPEN	European-based Open Systems Organisation

EXECUTIVE SUMMARY

1. The Supply Systems Redevelopment Project (SSRP) aims to create a common core computing system to cater for the supply needs of the Australian Defence Force, that is, the Australian Army, the Royal Australian Navy and Royal Australian Air Force. SSRP is a very large and complex project and despite having commenced in the mid 1970s, it is not scheduled to be completed until 1998.

2. While SSRP had its genesis in the 1970s, little progress was made between that time and 1988, by which time it appeared the Project had come to a complete standstill. In September 1988 the Senate referred to the Committee for its examination the management and administration of SSRP and its conformity to DESINE, the Defence EDP Systems Integrated Network Environment. DESINE is a concept or strategy aimed at the decentralisation and standardisation of Defence computing.

DESINE

3. SSRP is closely linked to DESINE, and a significant amount of the Committee's Inquiry was taken up examining various aspects of the DESINE Contract - a five year contract with IBM which makes IBM the sole supplier of computing equipment up until February 1994. Although the DESINE Request For Tender explicitly set out a requirement for a network architecture supporting open systems, the Department of Defence was later to describe the solution it acquired through the DESINE Contract as an implementation of Systems Applications Architecture (SAA) - an IBM proprietary architecture.

4. The Committee was concerned by the possibility that the Department of Defence could be unable to move from IBM equipment after the expiration of the DESINE Contract without incurring untenable costs and delays through having to redevelop all the systems developed under IBM's SAA. The Committee believes that the Department's commitment to IBM and more particularly to SAA, unless carefully managed, will leave it with no easy path to open systems and other vendors' solutions.

5. The Committee concludes that with the DESINE Request for Tender, the Department set out with a clear intention to support international standards for open systems, but that the outcome of the tendering process left it

with an unsatisfactory solution - at best IBM may prove SAA to support open systems and at worst the Department has acquired a proprietary architecture which only directly supports IBM proprietary products.

6. The DESINE Contract had far greater scope than the Request For Tender had intended and because of this has been the subject of much controversy. Far from covering only administrative computing, as stated in the Request For Tender, the Contract encompasses all information technology purchases other than those defined as embedded hardware and/or software to be used in weapons systems. Furthermore, it was found to extend to items that would not normally be perceived as computer equipment.

7. Examination of the DESINE Request For Tender has drawn the Committee's attention to the fact the billions of dollars are spent on information technology by the Commonwealth each year but that very little is known about the equipment and systems owned by Commonwealth departments. To remedy this situation, the Committee has recommended that departmental annual reports contain a comprehensive listing of current information technology assets, the listing to detail quantity and current value.

8. The DESINE Contract contains a clause which makes IBM the sole supplier under the Contract. This clause was the basis for much questioning during the Inquiry as the Committee sought to ascertain why it was written into the contract. It became apparent that, from the Department of Defence's view, having a contract with one vendor would enable it to more effectively achieve its standardised computing environment.

9. The sole supplier clause was linked to another clause which the Committee believes was inserted into the Contract in an attempt to lessen the effect of the sole supplier clause. The question of whether the second clause was enforceable was also raised by the Committee but was not satisfactorily resolved. The Committee is of the view that no future information technology acquisition contract should contain a sole supplier clause.

10. The DESINE Contract provides for the addition to it of new technology equipment and in examining this issue the Committee came to the view that the Department of Defence should not be limited to buying IBM equipment but under suitable circumstances could use other contracts such as existing panel period contracts to buy non-IBM new technology equipment.

11. Throughout the Inquiry there was considerable debate on the role of the UNIX operating system in the DESINE environment. This issue was not resolved to the satisfaction of the Committee and the Committee remains concerned about the manner in which UNIX solutions were passed over in the initial tendering process. The Committee is of the view that a departmental working party, known as the UNIX Working Party should be re-activated to explore options for the introduction of alternative UNIX solutions.

12. Of the DESINE Contract itself, the Committee in summary believes that a contract like this must never, ever be entered into by the Commonwealth again. While it is right and proper that a commercial organisation such as IBM should negotiate the best contract for itself, the Commonwealth must also maintain strength and expertise in its negotiating. The Committee sees there are significant problems when the negotiating skills of the Commonwealth are not up to scratch. Regrettably, this appears to have been the situation in the case of DESINE.

SSRP

13. The current Defence supply systems date back to the 1960s and 1970s and were, in general, developed separately for each of the three services - Army, Navy and Airforce. In 1975 a joint project was initiated to develop common computer systems to meet the services' supply needs. It did not progress at that time due to lack of funds, lack of commitment and lack of suitable technology.

14. The project was re-established in 1984 as the result of recommendations of a Business Review Working Group, formed to examine the supply systems. However, little progress was made over the next few years and by early 1987 concerns existed about SSRP's cost, its rate of progress and the validity of its predicted benefits. In 1987, Arthur Andersen & Co. were engaged to advise on a development strategy for the Project and the current plan is based on their recommended approach.

15. The Committee considers that the achievements of SSRP have not been encouraging. Little progress can be identified prior to 1988 and even since then, the Project has lacked continuous momentum. During the Inquiry, the Department of Defence provided the Committee with several submissions which updated the progress of SSRP and these submissions generally showed significant extensions to expected completion dates.

16. The Committee found that throughout the life of SSRP, its subprojects have continually fallen behind schedule. The primary causes of the slippage were:

- difficulties in staffing the Project;
- a scarcity of funds;
- overly optimistic assessments of what sub-project deadlines should be;
- delays in the establishment of the DESINE Contract and continuing doubt as to the products available via the Contract;
- delays in the evaluation of the supply/inventory application package caused by the Defence committee process; and
- the complexity of simultaneously meeting the requirements of both the Department and the three Services.

The Committee's assessment is that these and other slippages are to a large extent the result of poor administration and management of the Project at a global level.

17. The common core approach, ie the development of a single computer based system to satisfy the core supply requirements of all three Services, is considered by the Committee to have had a major impact on the progress of SSRP. While there is the potential for considerable cost saving in this approach, the Committee believes that it imposed a level of complexity on the Project which would not otherwise have existed. The Committee is not convinced that the common core approach is best for Defence. It considers that there is insufficient evidence to show that the common core approach will produce a system in a reasonable timeframe and with a positive cost/benefit ratio which will effectively satisfy the requirements of the Department and the three Services.

18. The Committee is not confident that current SSRP implementation plans necessarily align with the Department's current strategic direction and has recommended the Department critically re-examine SSRP's implementation plans.

19. Six analyses of costs and benefits were provided to the Committee. Inconsistencies in these analyses caused the Committee some concern and led it to conclude that SSRP's costings are not accurate. The situation is further clouded by recent advice from the Department that benefits will be adversely affected by other departmental initiatives such as the Forces Structure Review, the Commercial Support Program and the Defence Logistics Redevelopment Project. The costs of SSRP will fall, but much less than its benefits.

20. In light of apparent errors in the calculation of costs and benefits the Committee believes the Department of Finance should review its quality assurance procedures for the acceptance of data included in reports of ADP Acquisition Councils. The Committee has also recommended that the Department of Defence, through the Supply Systems Redevelopment Branch, cost alternative implementation strategies for SSRP and review purchasing policies under the DESINE Contract.

21. The Committee also sees an urgent need for the SSRP Prime Systems Integrator, the body which is responsible for ensuring the operation and compatibility of equipment and systems purchased for SSRP, to provide updated cost estimates for the project.

22. During the Inquiry a significant amount of evidence was received about the level of effort that the Department of Defence places on effective project management for the SSRP.

23. The Department of Defence uses a commercial project management tool known as SPECTRUM to manage SSRP and despite the merits of this particular tool the Committee found there to be a number of inadequacies in its use by the Department. The Committee noted that although there was an appreciation and acceptance of interrelationships between sub-projects of SSRP, there did not appear to be a management tool which was consistently applied to ensure that dependent integration activities were completed in an orderly sequence. No one significant reason could be found by the Committee for the ineffectiveness of these project management techniques and it believes there is a need for them to be critically examined.

24. In order to lighten the heavy workload of the Supply Systems Redevelopment Branch, the Committee believes that there is a need to establish a separate Branch to administer the preparation and evaluation of information technology related tenders.

25. The Committee is particularly concerned that there is a significant commitment by the Department of Defence to the long term engagement of contractors/consultants for the implementation of SSRP. The Committee is of the view that the engagement of contractors/consultants should be for specifically designated tasks which are both measurable and to be achieved over a fixed period of time. It is paramount that the necessary skills transfer to Departmental staff occurs when there is an on-going requirement for those skills.

26. The Committee believes that there is significant benefit to be gained from the external scrutiny of major projects being undertaken by Commonwealth agencies and considers that external review of SSRP and DESINE should not stop with the completion of this Inquiry.

RECOMMENDATIONS

The Committee has made a number of recommendations which are set out below, cross-referenced to their location in the text.

The Committee **recommends** that:

1. The Department of Administrative Services review and where necessary revise the tendering procedures for major information technology acquisitions systems to ensure that requirements as stated in the tender are reflected in the final contract. (Paragraph 2.17)

2. Departmental annual reports include a detailed listing of current information technology assets, with quantity and current value, including detailed information on information technology purchases during the current financial year. (Paragraph 2.19)

3. Commonwealth agencies adopt a two-stage tendering process for all information technology projects and that it be mandatory in those instances where the total information technology purchases will exceed appropriate threshold dollar values determined by the Department of Administrative Services, the Department of Information, Technology and Commerce and the Department of Finance. (Paragraph 2.25)

4. No future Commonwealth information technology acquisition contract contain a sole supplier clause and no future information technology acquisition contract be written in such a way that a sole supplier could eventuate. (Paragraph 2.42)

5. For any future additions of new technology equipment to the DESINE Contract, new IBM products not be added automatically to the Contract without an evaluation of non-IBM products which may better match existing and future computing environments at a similar or lesser cost to the new IBM product. (Paragraph 2.48)

6. Non-IBM products which are evaluated and compare favourably with new IBM products should be added to the DESINE Contract at the same time as the new IBM products. (Paragraph 2.48)

7. Wherever cost effective, the Department of Defence use Panel Period Contracts to supplement the DESINE Contract. (Paragraph 2.49)

8. The Delegate for the DESINE Contract ensure that all possible alternative vendors' solutions be examined to determine whether it is possible to meet requests under the exemption clause. (Paragraph 2.57)

9. The Delegate for the DESINE Contract be an officer at the Deputy Secretary level within the Department of Defence. (Paragraph 2.59)

10. Any dispute between IBM and the Department of Defence be published in the Department's annual report. (Paragraph 2.60)

11. With a view to rationalising the content and number of Supply Systems Redevelopment Project tasks currently underway, the Department of Defence critically re-examine its current Supply Systems Redevelopment Project implementation plans to assess how they reflect the current information technology strategic direction of the Department and modify the plans where necessary to align them with this strategic direction. (Paragraph 3.43)

12. The Department of Finance review its quality assurance procedures for the acceptance of data included in the reports of IT Acquisition Councils with a view to establishing whether there is a flaw in the IT Acquisition Council process. (Paragraph 3.54)

13. The operation and management of the Supply Systems Redevelopment Branch be reviewed to ensure that appropriate project controls and procedures are now in place, especially in the area of quality assurance. (Paragraph 3.61)

14. In view of the stated intention by the Department of Defence to follow the Systems Application Architecture strategy for implementation, the Department justify this proposition by providing alternative costed implementation strategies for the Supply Systems Redevelopment Project which reflect the alternative options of technology available. (Paragraph 3.65)

15. The Department of Defence review its current purchasing policies under the DESINE Contract to ensure that purchases are in line with the hardware and software strategy necessary for the future implementation of applications. (Paragraph 3.65)

16. The Prime Systems Integrator urgently provide new cost estimates for using the IBM personal computers and IBM proprietary software options in a Systems Application Architecture environment. The estimates should take account of the requirements for the additional technology requirements such as Random Access Memory, hard disk and level of technology platform required in the Supply Systems Redevelopment Project/DESINE environment. (Paragraph 3.72)

17. The Prime System Integrator urgently provide costings for alternative solutions which will provide similar computing facilities, without the high overheads needed to support applications such as Office Vision in the OS/2 Extended Edition environment, using Windows. (Paragraph 3.73)

18. The Defence Audit Branch examine the project management activities used in relation to the Supply Systems Redevelopment Project to ensure that there is sufficient evidence of their consistent application, especially in the day-to-day running of subprojects. (Paragraph 3.80)

19. In conducting this examination, close attention be paid to the introduction of extra unscheduled activities and activities undertaken out of logical sequence, such as the completion of the Advisability Study after the release of the Prime Systems Integrator Request For Tender. (Paragraph 3.80)

20. The Defence Audit Branch examine and report to the Supply Systems Redevelopment Project Steering Committee where short cuts have occurred in the application of project management activities; in particular, any reduction in SPECTRUM activities, where insufficient detail may have been collected which would affect the quality assurance aspects of the documentation held for the system definition of subprojects. (Paragraph 3.81)

21. The Department of Defence establish a separate Branch to administer the preparation and evaluation of information technology related tenders. (Paragraph 3.83)

22. The Department of Defence develop and implement procedures to ensure that the necessary skills transfer occurs between consultants/contractors and departmental personnel to reduce dependence on consultants and contractors. (Paragraph 4.4)

23. Defence Audit seek justifications for the continued engagement of each consultant/contractor with information technology skills, and in particular examine any lack of skills transfer from these consultants/contractors who have been engaged for a considerable time with a view to terminating contracts as soon as possible. (Paragraph 4.7)

24. Department of Defence review its policy of engaging the same consultants/contractors for the preparation of tender specifications as well as the evaluation of the same tender with a view to ensuring that there is independence in the external advice given for each process and that each stage of the process is clearly defined. (Paragraph 4.10)

25. A supply information centre be established to co-ordinate the identification of the supply requirements, management standards, performance and interface standards between the three Services. (Paragraph 4.13)

26. The Department of Defence monitor more vigorously the levels of ANZ content in the DESINE Price List to ensure that no erosion of ANZ content occurs. (Paragraph 4.17)

27. The Department of Defence re-activate the UNIX Working Party and task it with exploring options for the introduction of alternative UNIX solutions. (Paragraph 5.10)

28. A preference policy be established to favour products which increase support for open systems rather than proprietary products. (Paragraph 5.11)

29. The Department of Defence not extend the DESINE Contract. (Paragraph 5.14)

30. An information technology advisory group be established, sponsored by the Inspector-General and including representatives of the Departments of Administrative Services and Finance, to monitor information technology purchasing decisions in the Department of Defence. (Paragraph 5.18)

31. The Australian National Audit Office commence an Efficiency Audit of the Supply Systems Redevelopment Project in 1993. (Paragraph 5.31)

CHAPTER 1

INTRODUCTION

- Background
- Terms of Reference
- The Inquiry
- Structure of the Report

Background

1.1 The Supply Systems Redevelopment Project (SSRP) aims to create a common core computing system to cater for the supply needs of the Australian Defence Force - that is, the Australian Army, the Royal Australian Navy and Royal Australian Air Force. The nature of this task means that SSRP is both a very large and lengthy project. Despite its commencement in the mid 1970s, it is not scheduled to be completed until 1998.

1.2 Prior to this Inquiry, the Joint Committee of Public Accounts had examined SSRP in 1985-86 as part of its Inquiry into Project DESINE and again in 1986 as part of its Inquiry into Aspects of Defence Equipment Support.[1] In these earlier inquiries the Committee found that Defence had embarked on an overly ambitious project, and one which left the Committee with serious doubts about the underlying strategy being pursued by the Department of Defence.

1.3 While SSRP had it genesis in the 1970s, little progress was made between that time and 1988, by which time it appeared the Project had come to a complete standstill. In September 1988 the Senate referred to the Committee for its examination the management and administration of SSRP and its conformity to DESINE.[2]

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1. JCPA, *Project DESINE - Proposed computer acquisition by the Department of Defence*, Report 254, 1986.
   JCPA, *Aspects of Defence equipment support*, Report 263, 1986.
2. See Chapter 3 for a detailed discussion of DESINE.

Terms of Reference

1.4 The terms of reference for the Inquiry were set out in a resolution of the Senate passed on 27 September 1988:

> The management and administration of the Department of Defence's computer redevelopment program, the Supply Systems Redevelopment Project and, in particular -
>
> (a) the length of time the Supply Systems Redevelopment Project has been underway;
>
> (b) the resources committed to the project to date in terms of:
>
> (i) manpower costs, including salary and related allowances payable to both civilian and Australian Defence Force personnel,
>
> (ii) consultancy services,
>
> (iii) computing support, and
>
> (iv) any other operating expenses;
>
> (c) the objectives of the Supply Systems Redevelopment Project, as stated when the proposal commenced, and the results achieved by the program to date;
>
> (d) the Supply Systems Redevelopment Project original and 1988 cost estimates;
>
> (e) the planning and consultation which occurred at the commencement of the project, including:
>
> (i) definition of the goals of the Supply Systems Redevelopment Project,
>
> (ii) expected time-table for implementation of the Supply Systems Redevelopment Project, and
>
> (iii) adequacy of input by the three Services in the definition of user requirements;

(f) cost-benefits of the Supply Systems Redevelopment Project; and

(g) what attempts have been made by the Department of Defence and the Australian Defence Force to ensure that any major computer purchases made since 1986 conform to the standardisation and decentralisation rationale of the Supply Systems Redevelopment Project and the related Defence computer acquisition program, Project DESINE.

The Inquiry

1.5 The Sixteenth Committee effectively commenced the Inquiry into SSRP in March 1989 when a submission was received from the Department of Defence.[3] While a number of public hearings were held throughout 1989-90, the Sixteenth Committee was prevented from finalising its work because of the March 1990 federal election. Soon after its appointment in May 1990, the current Committee resolved to complete the Inquiry.

1.6 As part of the Inquiry numerous public hearings were conducted. In addition a number of *in camera* hearings were held to give the authors of confidential submissions an opportunity to express their views and concerns. Details of the Inquiry are provided in Appendix A, Conduct of the Inquiry.

1.7 A number of inspections of Defence facilities were also conducted to provide Committee members with first hand experience of some of the activities and problems in the Defence supply area. The specific sites inspected were the Holsworthy and Moorebank supply stores in Sydney, the Air Force and Army Logistics Commands in Melbourne, the Defence Science and Technology Organisation at Salisbury, SA and the Navy Supply Centre, Zetland, NSW.

1.8 The Inquiry has presented the Committee with a number of particularly complex issues. At times the Committee was required to contend with technical computer issues upon which even computer experts could not agree. Such issues made it difficult for the quick adjudication of many other significant matters.

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3. The members of the Sixteenth Committee of Public Accounts are listed at Appendix D.

1.9 As with previous inquiries into 'Defence' matters, the Inquiry into SSRP attracted voluminous amounts of paper. The task faced by both the Sixteenth Committee and the current Committee was made more difficult by this and by the fact that significant developments continued to occur throughout the Inquiry. Such developments included consultants' reviews, organisational changes within Defence and last, but not least, a seemingly endless turnover of Defence personnel.

Structure of the Report

1.10 This Report consists of five chapters. The issues of concern to the Committee are discussed in Chapters 2, 3 and 4. The Committee's general comments and its views on the future of SSRP are set out in Chapter 5.

1.11 The Appendices to the Report provide more detailed information on some aspects of the Inquiry and include a number of supplementary submissions on the progress of SSRP which were provided by the Department of Defence.[4]

4. Copies of public submissions and transcripts of evidence from public hearings are available from the Committee's secretariat.

CHAPTER 2

DESINE

. Introduction
. Request For Tender
. Sole Supplier Clause
. Addition of New Technology
. Potential for Lock-in to IBM
. UNIX and DESINE

Introduction

2.1 DESINE, an acronym for the Defence EDP Systems Integrated Network Environment, is a concept or strategy aimed at the decentralisation and standardisation of Defence computing and is perhaps best thought of as a series of technical standards.

2.2 At this time DESINE is being implemented by means of a five-year contract with IBM. As such it is fundamental to SSRP.

2.3 This Chapter presents the Committee's findings and recommendations in relation to a number of key aspects of the DESINE concept and more specifically, the DESINE Contract with IBM. These aspects include the failure of the Department to reflect accurately its requirements in its Request For Tender (RFT), the existence of a Sole Supplier Clause in the Contract, the potential for Defence to be locked in to IBM proprietary products well after the DESINE Contract expires in February 1994 and Defence's ability to make sound decisions in relation to changing technology and in particular, the operating software known as UNIX.

Request For Tender

2.4 Throughout the Inquiry the Committee sought evidence that the Department of Defence is implementing SSRP within the scope of its information technology strategic direction for administrative computing systems.

2.5 The origins of this strategy can be traced back to the beginning of the 1980s. In 1981 an internal Defence working party, the Defence Computing Infrastructure Working Party, concluded that Defence should decentralise its administrative computing. This was to be dependent on improved strategic planning of administrative computing and the implementation of strong central control of policy and technical standards.

2.6 The technical standards were defined in terms of a standardised computing environment, DESINE, which would provide for decentralisation along functional lines and for horizontal and vertical integration between functions. The environment was to be defined by a set of rules and protocols or what is termed a network architecture. To use the analogy of a wheel, the network would in essence not only allow the hub to communicate with the spokes but also allow the spokes to communicate directly with each other around the rim.

2.7 Additionally, DESINE was to overcome the vast array of different and incompatible computer systems that existed in the wider Defence organisation by creating a standardised computing environment comprising computer systems that were both interoperable and compatible with each other.

2.8 An RFT was issued by the Department on 20 March 1987 inviting tenders to provide:

- a network architecture using proven products and which included support for international standards for open systems;
- a full range of equipment, including software; and
- an interface to existing UNISYS mainframe computers.

2.9 While Defence's original strategy had been to negotiate a contract to cover only administrative computing, the RFT broadened the contract to cover operational computer systems, with the exception of those classified as embedded or specialist systems. How this actually happened was never clearly explained to the Committee and evidence presented during the Inquiry did nothing to persuade the Committee that the change was not a result of poor management of the RFT by the Department.

2.10 Taking the strategy as the logical starting point for the evaluation of the administration and management of SSRP, the Committee examined the results of the tendering process.

2.11 Although the DESINE RFT was explicit in describing a requirement for a network architecture supporting open systems, the Department of Defence was to later describe the solution it acquired through the Contract with IBM as a Systems Applications Architecture (SAA) - an IBM proprietary architecture.

2.12 The issue of network architecture presented some difficulty for the Committee as it sought to assess technical matters upon which it later became evident that even experts could not agree. Throughout the Inquiry, IBM insisted that SAA was an 'open' architecture which would encompass Open Systems Interconnect (OSI) as OSI standards matured and hence would enable Defence to purchase non-IBM hardware and software which would communicate with IBM products. However, with the assistance of Australian National Audit Office the Committee obtained the views of the Chief Scientist of the US General Accounting Office who stated:

> As you know, SNA (Systems Network Architecture) is a set of proprietary data communications protocols and interfaces, and SAA (Systems Applications Architecture) is a proprietary vendor specific concept the precise nature of which is not yet entirely clear. Proprietary protocols and interfaces like these are not good choices if the goal of an organisation is to implement an open systems architecture which can include products from many vendors.[1]

2.13 The Committee also noted the view of James L Cussell, a former IBM mainframe marketing executive and now with the Gartner Group in Stanford, Connecticut, USA that:

> It is the number one goal of IBM's new strategy (that is SAA) to 'recapture control' of its largest customers - partly by giving them a system that is so integrated it is hard to clone.[2]

2.14 On the basis of the evidence available to it, the Committee considers that SAA was not 'proven' as required by the RFT, at the time the tender was accepted. Furthermore, no evidence was provided to the Committee that SAA was ever technically evaluated by the Department to ensure among other things that its adoption accorded with the strategic technical direction of the Department. The Committee regards this as a serious indictment against the Department of Defence.

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1. Evidence, p. 401.
2. Evidence, p. 273.

2.15 The Committee concludes that while the Department set out with a clear intention to support international standards for open systems, the outcome of the tendering process left it with an unsatisfactory solution - at best IBM may still prove SAA to support open systems and at worst the Department has acquired a proprietary architecture which only directly supports IBM proprietary products.

2.16 While cognisant that information technology purchasing procedures have continued to evolve during the period of the Inquiry, the Committee is of the view that the Department of Administrative Services should review and where necessary revise the tendering procedures for major IT acquisitions so that no Commonwealth department repeats the failure of the Department of Defence to translate its requirements into a binding contract.

2.17 **The Committee therefore recommends that:**

- **The Department of Administrative Services review and where necessary revise the tendering procedures for major information technology acquisitions systems to ensure that requirements as stated in the tender are reflected in the final contract.**

2.18 Examination of the DESINE Request For Tender has drawn the Committee's attention to the fact that billions of dollars are spent on information technology by the Commonwealth each year but that very little is known about the equipment and systems owned by Commonwealth departments. The Committee is of the view that this situation may be remedied by there being a requirement for departmental annual reports to contain a comprehensive listing of current information technology assets, the listing to detail quantity and current value.

2.19 **The Committee recommends that:**

- **Departmental annual reports include a detailed listing of current information technology assets, with quantity and current value, including detailed information on information technology purchases during the current financial year.**

2.20 The Committee notes that the current cash accounting system used by Commonwealth agencies provides little if any information on the extent of, and value of, IT purchases by agencies.

2.21 The DESINE Contract was far more pervasive than the Request For Tender had intended and because of this has been the subject of much controversy. Far from covering only administrative computing, the Contract encompasses all information technology purchases other than those defined as embedded hardware and/or software to be used in weapons systems. It became clear during one public hearing that the DESINE Contract extended to more than what the average person might perceive as computer equipment. Some members of the Committee were amazed when it was made clear that even such items as overhead projectors and screens used as training aids were initially included in the DESINE Contract.

2.22 The Committee believes that many of the problems encountered in the tendering process could have been avoided if the Department of Defence had followed the Committee's recommendations in Report 254, for a two stage tendering process.[3] Stage 1 involved the supply of a network architecture and Stage 2 the issue of a request for part tenders to supply implementation quantities of different quantities of equipment and software compatible with the selected network architecture.

2.23 Instead the Department used a three-stage tendering process which not only proved to be flawed in the sequence of tendering but also proved to be extremely costly, contributing significantly to delays in the implementation of SSRP.

2.24 On the basis of evidence available to it the Committee concluded that a two-stage tendering process should be adopted for all IT projects whose purchases collectively exceed $10m or systems integration exceeds $1m.

2.25 The Committee recommends that:

- **Commonwealth agencies adopt a two-stage tendering process for all information technology projects and that it be mandatory in those instances where the total information technology purchases will exceed appropriate threshold dollar values determined by the Department of Administrative Services, the Department of Information, Technology and Commerce and the Department of Finance.**

3. JCPA, Report 254 *Project DESINE*, p. 55.

2.26 A two stage tendering process will include, in the first stage, the primary requirement of the project, be it a commercial software package, a network architecture or an open systems environment. The second stage will be for suitable hardware and software to work with the products selected in the first stage.

Sole Supplier Clause

2.27 Clause 2.1 in the DESINE Contract states:

> The *Contract* is to establish the Contractor as the sole supplier of the *Equipment* periodically required by the Commonwealth for *Defence* ...[4]

2.28 This particular clause was the basis for much questioning during the Inquiry as the Committee sought to ascertain why it was written into the contract. It became apparent that from the Department of Defence's view having a contract with one vendor would enable it to more effectively achieve its standardised computing environment. The Department maintained that it had a commitment to open systems and that IBM had this same commitment.

2.29 A submission dated 4 December 1989 from the Department of Administrative Services set out the advantages and disadvantages of a sole supplier contract such as the DESINE Contract. They were:

Advantages:

- It provides a simple and expedient way to implement a standard computing environment in a large organisation over a number of years, this type of contract binds the contractor to supply and integrate the equipment for the period of the contract and therefore gives the department a secure source for developing and maintaining compatible systems.
- It binds the contractor to maintain discount levels, to manage the ANZ content regime and to manage quality and timeliness of deliveries etc.
- Price increases can be contained.
- Product can be stockpiled to meet peaks in demand.

4. Evidence, p. S239.

Disadvantages:

- The user department is committed to the contractor's architecture and this may not remain the most desirable over the period of the contract.
- Users may be restricted in their choice of solutions.
- Users are committed to the contractor's architecture. Any move to make GOSSIP 2 mandatory during the life of the contract will have to be negotiated with IBM.
- ANZ Content regime puts considerable pressure on all parties to perform and this was untested.[5]

2.30 The reasons for the inclusion of Clause 2.1 in the DESINE Contract are not clear. One possibility is that the Clause is a result of a trade-off for more favourable prices. While it might reasonably be expected that IBM would have sought the inclusion of the Clause, evidence presented to the Committee indicates the opposite to be true. The Department of Administrative Services advised the Committee on 25 January 1990, that:

> IBM did not seek an exclusive dealing position in the DESINE Contract. This was initiated by the Commonwealth in order to make the Contract binding.[6]

2.31 Evidence from the Department of Administrative Services revealed that the Department of Defence's requirement for the sole supplier clause led it to seek numerous legal opinions from the Attorney-General's Department as it sought to meet the Department of Defence's conflicting objectives - to bind the supplier while at the same time leaving Defence free to buy from wherever it pleased.

2.32 To this end the Sole Supplier Clause was linked to another clause which the Committee believes was inserted into the Contract in an attempt to negate the sole supplier clause. There was great reluctance on the part of both the Department of Defence and the Department of Administrative Services witnesses to discuss the numerous advisings obtained from the Attorney-General's Department on this matter. Both asserted that any details should be treated as commercial-in-confidence and should not appear on the public record. The Committee was

5. Evidence. p. 337.
6. JCPA, File 1988/17.

therefore unable to determine the exact nature of the advisings or, at the time, any details of the clauses in question. The question of whether the second clause was enforceable was raised by the Committee but did not lead to any satisfactory answers.

2.33 The Committee notes that while it sought to obtain copies of these opinions provided by the Attorney-General's Department, the Department of Defence would not agree to their release to the Committee.

2.34 A 'sanitised' version of the Contract, with commercial-in-confidence material removed, was provided to the Committee but this proved to be of little use as both the clauses in question had been deleted.

2.35 Another of the Committee's concerns with the Contract was whether IBM was the final arbiter in any decision as to whether IBM's products or a rival supplier's offering for any particular requirement was the most cost-effective and therefore the preferred solution.

2.36 A legal opinion prepared by Solicitors Clayton Utz was used by the Committee to pursue this matter. In particular, the advice related to a question as to whether clause 7.3 would allow Defence to purchase additional equipment and/or services other than from IBM notwithstanding any other provision of the Contract. The advice stated:

> The wording of the last sentence of clause 7.3 is somewhat peculiar. Clause 7.1 and the first sentence of clause 7.3 require IBM to make an offer and so it would seem that this last sentence becomes relevant only when IBM is in breach of the obligation. The sentence would have made more sense had it been commenced: 'Where the additional Equipment and services are <u>not accepted</u> by the Commonwealth ...' As currently worded the only test is whether IBM had <u>offered</u> the additional Equipment and services.
>
> On the face of the Contract, therefore, this clause would operate to allow Defence to acquire additional Equipment and services of a supplier other than IBM only where Defence had first required IBM to offer those goods or services and IBM had refused to make such an offer in breach of the Contract. IBM could comply with the requirement to make an offer but the offer could be on terms which would be commercially unacceptable to Defence. The only constraint on IBM in

> formulating its offer would be to have regard to the Contract Price List and to be 'reasonable'[7].

2.37 A further concern of the Committee was whether IBM, in assessing competitors' offerings, had access to their confidential pricing and specification details. Department of Defence representatives claimed that the Department's Delegate was in fact the final arbiter and that no confidential information was accessible to IBM.

2.38 The Committee found that without reference to the DESINE Contract is was not able to completely resolve these issues.

2.39 The future interpretation of the Sole Supplier Clause remains open to debate and in this respect the Committee notes further comments by Clayton Utz on the interpretation of the DESINE Contract, particularly with regard to the sole supplier clause. The opinion states inter alia that:

> The Contract is ambiguous and in some cases contradictory which makes certainty in any opinion difficult and thus neither party could be confident of receiving a favourable ruling from a court should that become necessary. In other words, were Defence to acquire some non-IBM designated products and Defence could support the need for these products on the basis outlined above, IBM could have no confidence that it would be successful in any action against the Department.[8]

2.40 The Committee notes its concern that while it was frustrated in its attempts to obtain a copy of the complete DESINE Contract from either the Department of Defence or the Department of Administrative Services, copies were known to be readily obtainable in the public domain. A copy in the first instance was sent to the Committee by a third party.

2.41 The Committee concludes that the sole supplier clause in the DESINE Contract represents a deviation from the concept given in the original specifications and should not have been part of this Contract. The Committee is firmly of the view that no such clause should ever be included in any future Commonwealth information technology acquisition contract.

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7. Evidence, p. S1058.
8. Evidence, p. S1054.

2.42 **The Committee therefore recommends that:**

- **No future Commonwealth information technology *acquisition contract contain a sole supplier clause* and no future information technology acquisition contract be written in such a way that a sole supplier could eventuate.**

Addition of New Technology

2.43 As a result of the decision by the Department of Defence to embrace SAA there have been a number of decisions regarding the acceptance of new IBM technology onto the DESINE Contract which in the Committee's view are not good strategic decisions.

2.44 The DESINE Contract specifically provides for obsolete items to be substituted by newer technology items as appropriate, and for additional products to be added to the Defence Standard Product List (DSPL).[9] The Committee sought to resolve the issue of whether additional/replacement new technology equipment should be obtained only from IBM, or whether other supplies should be considered.

2.45 A Defence representative at the hearing on 15 October 1991 advised the Committee that he had been notified by IBM that the 4381 and 9370 range of IBM computers were to be superseded and that replacements would be drawn from other IBM ranges. He stated further that an alternative supplier for this type of equipment was not sought because IBM was the sole supplier and the DESINE Contract awards business to IBM, including the substitution of obsolete equipment with later equipment and the introduction of new technologies.[10]

2.46 The Committee has some reservations about the Department's interpretation of the Contract in this respect and notes again the legal opinion provided by Clayton Utz which states 'We do not believe that the Contract should be or would be interpreted by a court to mean that the Department of Defence can acquire only IBM designated equipment and products for a five year period.'[11]

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9. The Defence Standard Product List is that part of the DESINE Contract which lists equipment available for purchase under the Contract.
10. Evidence, pp. 11-12.
11. Evidence, p. S1054.

2.47 The Committee is also of the opinion that the Department could obtain equipment from a Panel Period Contract or any Agency Computer Contract if there was a price advantage in so doing. There is also some basis for substitution if an alternative product with a higher ANZ content can be substituted in a cost-effective manner.

2.48 **The Committee recommends that:**

- **For any future additions of new technology equipment to the DESINE Contract, new IBM products not be added automatically to the Contract without an evaluation of non-IBM products which may better match existing and future computing environments at a similar or lesser cost to the new IBM product; and**

  Non-IBM products which are evaluated and compare favourably with new IBM products should be added to the DESINE Contract at the same time as the new IBM products.

2.49 **The Committee further recommends that:**

- **Wherever cost-effective, the Department of Defence use Panel Period Contracts to supplement the DESINE Contract.**

Potential for Lock-in to IBM

2.50 The Committee was concerned by the possibility that the Department of Defence could be unable to move from IBM equipment after the expiration of the DESINE Contract without incurring untenable costs and delays through having to redevelop all the systems developed under SAA. Various opinions on this matter were obtained in evidence and some have been discussed at paragraphs 2.12 and 2.13.

2.51 Further opinion on this matter was provided by a UNISYS representative who stated:

> We believe that if IBM proceeds with a total commitment to SAA as the application architecture in Defence it is highly likely that Defence will find itself locked in an IBM environment.[12]

2.52 In further discussion the UNISYS representative suggested that an option to develop systems with OSI as their underlying network architecture and not adopting SAA would go some way to allaying UNISYS' fears.[13]

2.53 The Committee is aware that as a result of the Government OSI Profile (GOSIP) it is now mandatory to bid for government business with OSI conforming products.[14] The Department of Defence must therefore ask that new substitute products on the Contract conform to GOSIP standards.

2.54 The Committee noted comments by a representative of the Department of Finance that although SAA is an IBM proprietary architecture which basically does not comply with OSI standards, it is possible to have systems which is based on SAA and able to interface with OSI standards.[15] However, despite this the Committee remains unconvinced that the adoption of SAA does not have the potential to lock the Department of Defence into IBM and IBM compatible products beyond the five-year DESINE Contract.

2.55 The Committee concludes that the Department of Defence and the Department of Administrative Services have negotiated a contract with IBM which will limit, to a degree, the opportunity to buy products outside of the Contract for the five years it has to run. While this in itself will not lock in the Department of Defence to IBM products and the provisions of the Australian GOSIP will prevent any future trend to proprietary products which do not support OSI, the Committee believes that the Department's commitment to IBM and more particularly to SAA, unless carefully managed, will leave it with no easy path to open systems and other vendors' solutions.

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12. Evidence, p. 325.
13. Evidence, p. 326.
14. Evidence, pp. 391-2.
15. Evidence, p. 385.

2.56 To prevent lock-in to IBM the Department of Defence should be encouraged to use the discretionary powers of the Delegate to ensure that IBM does not veto alternative vendors' solutions which satisfy the exemption clause.

2.57 **The Committee recommends that:**

- **The Delegate for the DESINE Contract ensure that all possible alternative vendors' solutions be examined to *determine whether it is possible to meet requests* under the exemption clause.**

2.58 The position of Delegate should be at Deputy Secretary level to maximise the limited authority that the Delegate appears to have. If the Delegate is unable to exercise appropriate influence then the Committee is of the view that IBM be accountable by the Delegate publishing the dispute and its particulars in the Department's annual report which is tabled in Parliament.

2.59 **The Committee recommends that:**

- **The Delegate for the DESINE Contract be an officer at the Deputy Secretary level within the Department of Defence.**

2.60 **The Committee also recommends that:**

- **Any dispute between IBM and the Department of Defence be published in the Department's annual report.**

UNIX and DESINE

2.61 Throughout the Inquiry there has been considerable debate on the role of the UNIX operating system in the DESINE environment. This was not satisfactorily resolved and the Committee remains concerned about the manner in which UNIX solutions were passed over in the initial tendering process. From early departmental reports of the desired solution for DESINE, it is apparent that UNIX was never considered a suitable candidate by the Department of Defence.

2.62 Vendors were generally of the opinion that a UNIX solution was viable for DESINE but they believed that the Department had already decided UNIX solutions would not fulfil all of the Department's requirements despite the wide use of UNIX by Australia's allies, in particular those in Europe, the United States and Canada.

2.63 The Committee believes that the adoption of a solution which was at least part UNIX may have led to a degree of software sharing with these allies which could have lessened the burden of projects such as SSRP on the Australian taxpayer.

2.64 The Committee noted that the Department of Defence set up a UNIX Working Party to evaluate UNIX, after pressure from a Senate Estimates Committee, but the delay in the Working Party producing a report and the somewhat narrow range of options considered reduced its value. The recommendations of the UNIX Working Party were, however, accepted in principle by the Committee.

2.65 The Australian National Audit Office provided evidence on current Open System standards in particular, the Portable Operating System Interface for Computing Environments (POSIX) and the X/OPEN Portability Guide No. 3 (XPG3).[16] The Committee was particularly concerned when on 1 July 1991 the Department of Defence added IBM's AIX operating system to DESINE without examining other possible UNIX products which were also POSIX and XPG3 compliant. The Department of Defence had the Department of Administrative Services seek legal advice as to whether AIX could be added to the DESINE Contract rather than address the more important question of whether there was an obligation to add any IBM proprietary UNIX product.

2.66 The Committee concluded that the Department of Defence has accepted on to the DESINE Contract an IBM UNIX product, under the criterion of new technology, whereas alternative UNIX products require a separate evaluation

2.67 Of the DESINE Contract itself, the Committee in summary believes that a contract like this must never, ever be entered into by the Commonwealth again. While it is right and proper that a commercial organisation such as IBM should negotiate the best contract for itself, the Commonwealth must also maintain strength and expertise in its negotiating. The Committee sees there are significant

16. X/OPEN is an independent European-based organisation committed to the establishment of Open System standards.

problems when the negotiating skills of the Commonwealth are not up to scratch. Regrettably, this appears to have been the situation in the case of DESINE.

CHAPTER 3

SSRP

. Introduction
. History
. Common Core Approach
. Progress
. Costs and Bénefits
. Project Management

Introduction

3.1 Defence logistics, the supply of the Defence Force with food, equipment and materials, is a major element of Defence spending. In the financial year 1987-88 it amounted to $723m or 9.3% of overall Defence outlays.[1]

3.2 The Supply Systems Redevelopment Project (SSRP) is a major project which aims to provide the Australian Defence Force with an efficient and effective common computer-based supply system. To use the analogy of a wheel, the system would communicate via a network which would in essence not only allow the hub to communicate with the spokes but also allow the spokes to communicate directly with one another around the rim.

3.3 SSRP is one of Defence's longest running projects. Having originated in the 1970s, it is scheduled for completion in 1998. SSRP is also an expensive project and based on current estimates it will require expenditure of at least $438m.

3.4 This chapter provides an overview of the history of SSRP and assesses several key aspects of the Project - the common core philosophy which underlies the Project, the progress of the Project, costs and benefits, and the management of the Project.

1. Evidence, p. 86.

History

3.5 The current Defence supply systems were developed in the 1960s and 1970s and were, in general, developed separately for each of the three Services - Army, Navy and Air Force. In 1975 a joint effort was initiated to develop common computer systems to meet the Services' supply needs. However, because of a lack of commitment and a lack of funds, very little happened over the next couple of years.

3.6 Progress was hindered from 1977 onwards as priority was given to another project to convert systems operating on existing Honeywell computers to new Univac computers. This particular project was expensive and did not advance Defence's supply systems[2]. However, it identified the need for Defence to re-examine the supply redevelopment concept and in 1982 the Businesses Review Working Group (BRWG) was formed to examine Defence's supply systems.

3.7 The BRWG found major shortcomings in the existing supply systems:

- a lack of computer systems was preventing effective resource management;
- the existing systems were focused on the needs of the individual Services and not Defence as a whole; and
- at all organisation levels there was inadequate interfacing of existing systems.

3.8 The BRWG saw there was a pending need to replace many existing systems. Minicomputers needed to be replaced in the late 1980s and early 1990s and mainframe computers needed to be replaced in the mid 1990s.

3.9 Numerous options for redevelopment were considered by the BRWG. Eventually three options remained:

> A. Retain the Services' supply ADP [Automatic Data Processing] systems for as long as possible, transferring these operations to replacement computing hardware as the existing equipment reaches the end of its economic life.

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2. The conversion project is estimated to have cost some $800m. See Evidence, p. 278.

B. Development/redevelopment of supply systems requirements on a single Service basis.

C. Embark on a joint Service development /redevelopment of common core supply systems, under Defence management, and in accordance with an approved supply ADP strategic plan.[3]

3.10 The findings of the BRWG were considered by a high level Defence committee, the Defence Force Development Committee (DFDC), and in April 1983 the DFDC agreed that the most cost-effective approach was to follow the BRWG's option C.

3.11 The concept of supply systems redevelopment endorsed by the DFDC entailed a number of separate but inter-related projects and during the middle part of 1983 these subprojects were further refined. In October 1983, another Defence committee, the Defence Supply EDP Steering Committee endorsed the scope of the project. A project office to manage the project was established in August 1984, however, over the next few years little progress seemed to take place. This was due largely to a lack of funds and qualified computer personnel.[4]

3.12 In the years 1985 and 1986 the Department sought approval for its project DESINE - a project to be implemented over several years with the objective of creating a standardised computing environment for all administrative systems within Defence. SSRP was to be '... a vehicle for the introduction of DESINE'.[5] Part of the approval process required the Joint Committee of Public Accounts to examine the overall proposal. This occurred in 1985-86 and a report on the examination was presented to the Parliament on 25 September 1986.

3.13 By early 1987 concerns existed about SSRP's cost, its rate of progress and the validity of its predicted benefits.[6] The Secretary of the Department of Defence and the Chief of the Defence Force decided it was necessary to review SSRP and thereby accelerate its progress. As a result of this decision, the management consultant firm Arthur Andersen & Co was engaged in April 1987 to '... advise on the development and implementation strategy for the project, the likely costs and benefits and the means by which progress (and hence benefits) might be advanced'.[7]

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3. Evidence, pp. S11-2.
4. Evidence, pp. S42-3.
5. Evidence, p. S9.
6. Evidence, p. S74.
7. Evidence, p. S15.

3.14 In March 1988 Arthur Andersen and Co reported back to Defence, endorsing the SSRP concept but also recommending changes to the development and implementation strategy which it believed would bring about earlier benefits. The Department of Defence drew heavily on the Arthur Andersen & Co's *recommendations in restructuring SSRP and devising a revised development* strategy.

3.15 The main aspects of the revised strategy included:

- completing, as a matter of priority, a high level integrated design (HLID), to provide an overall integrated conceptual framework for the common definition and design of supply systems;
- early implementation of those elements of SSRP which offer the potential for realisation of significant savings, especially in manpower;
- use of commercially available computer software wherever feasible; and
- development and implementation of SSRP under a collaborative arrangement between Defence and a contracting organisation with the aim of overcoming skill deficiencies, sharing risk and [applying] commercial pressures to costs and time schedules.[8]

3.16 In its first submission to the Inquiry, presented on 10 March 1989, the Department of Defence stated that SSRP was a project established to provide '... a fully integrated supply system for the Australian Defence Force (ADF).'[9] SSRP still reflected the recommendations of the Arthur Andersen study and was now divided into several discrete subprojects:

- a Policy and Resources Project to provide computer support to Defence Central and Service headquarters;
- an Executive Project to support the three Services' logistics and support commands;

8. Evidence, p. S77.
9. Evidence, p. S10.

- a common Depot/Base Project to provide support for the Services' bulk holding stores; and

- a separate project to provide urgent, priority enhancements to Executive level systems.

3.17 The Department's submission advised that the Defence Force Structure Committee (DFSC) had given in-principle endorsement to a revised overall SSRP plan in November 1988. However, the DFSC had also agreed that the capabilities of specific systems, within the overall plan, needed to be firmly established on cost, efficiency and effectiveness grounds.[10] To manage the entire Project, it had also been broken down into 13 unapproved financial phases.

3.18 About the same time the Department forwarded its first submission to the Committee, an ADP Acquisition Council was set up to consider the Department's proposals for SSRP.[11] In April 1989, the ADP Acquisition Council endorsed the Department's proposals for SSRP thereby paving the way for the Department to put a submission to the Government, '... to seek in principle approval to the progression of SSRP as a whole, and in particular, [to seek] project and funding approval to the next immediate phases of the [Project]'.[12]

3.19 The Acquisition Council endorsed development strategy had four key elements:

a. the acquisition of all hardware systems and system software utilising the Department's DESINE contract...;

b. the evaluation and acquisition of a commercial software package, or packages, as the basis of the redeveloped systems;

c. the use of a high level integrated design [HLID], which is a system segment architecture to provide a logical, conceptual framework within which future development

10. Evidence, p. S28.
11. ADP Acquisition Councils (now referred to as Information Technology (IT) Acquisition Councils) are required to be established by Commonwealth departments and agencies to oversight the purchase of major IT equipment valued above $5m. Information on IT Acquisition Councils is provided in the Department of Finance's, *Guidelines for the operation of IT Acquisition Councils*, Canberra, December 1991.
12. Evidence, p. S74.

initiatives and possible software package solutions can be placed and to set many design principles in place to ensure that the design and implementation of component systems would result in a cohesive supply system; and

d. the engagement of a Prime Systems Integrator to provide management for, and to undertake, SSRP redevelopment activities.[13]

3.20 Since 1989 the Department has made progress in pursuing this development strategy. In particular:

- the HLID was completed by the time the Acquisition Council finalised its report;
- the DESINE Contract with IBM was signed on 28 February 1989;
- in June 1990 a tender was awarded to the Australian software company MINCOM (Aust) Pty Ltd for the supply of a commercial software package known as MIMS; and
- in June 1991 a contract was awarded to the Computer Power Group for it to act as the Prime Systems Integrator for SSRP.

3.21 More recently some parts of SSRP have been collapsed together, as a result of system definition studies of AUTOPROC and Depot/Base elements of SSRP which were completed in March 1991. These studies '... confirmed that the distinction between AUTOPROC and Depot/Base systems ... is unnecessary and artificial for subsequent development and implementation activities.'[14] The resulting single system is known as SDSS, the Standard Defence Supply System.

Common Core Approach

3.22 Common core in the context of this Report refers to an environment where all three Services' supply requirements are controlled and administered through a single computer system, rather than having a separate system for each Service. There is the potential for considerable cost saving in this approach, ranging

13. Evidence, p. S414.
14. Evidence, p. S1041.

from aspects associated with the computer system itself, to direct savings on stores holdings and associated infrastructure though the establishment of a common inventory and common warehousing. The aspects associated with the computer system itself include:

- data definition and the application of data;
- program modules and transactions;
- computer hardware and operating systems software;
- input/output formats including Visual Display Unit formats;
- general supply terminology;
- manual procedures; and
- implementation and training.

3.23 Unfortunately, such an approach carries with it a degree of complexity far greater than that of single Service systems. It is this degree of complexity which led the Committee to question the Department's adoption of the common core approach. The Committee's concern focused on whether the Department could successfully manage the implementation of a system more complex than any it had previously attempted, in a reasonable time frame and with a positive cost/benefit ratio.

3.24 The evidence presented to the Committee indicates clearly that achievement of a common core system has been, and remains, a difficult task. The Honeywell - UNIVAC conversion project in the 1970s delayed work on common core systems but even when it was over, little progress was made. Commenting on this, the Assistant Chief of the Defence Force (Logistics) stated:

> I have no hesitation in saying that the common core approach proved to be more difficult than I think people perceived at that time and so [it] took longer.[15]

3.25 The Committee questioned what had changed to make the Department believe that it could do now what it could not do 20, 10, 5 or even 3 years ago, and moreover what none of Australia's traditional allies had done. In

15. Evidence p. 89.

response, the Department indicated that, 'Half a dozen things had come together at the same time',[16] and that the most significant of these was that the technology now available is more able to support such a development.

3.26 At a public hearing held on 14 June 1989 the Committee pursued the issue of the common core approach. The Committee noted that macro solutions, if they work, solve all problems for all people for all time, but they are often less cost-effective than solving each problem separately and on time. The Committee was conscious of the fact that there had been four major revisions to the SSRP timetable since 1982-83 and it therefore queried the degree of confidence it could have that there would not be a continuing revision of the timetable and further slippage.

3.27 The Department responded that early in the life of SSRP, a '110 percent' solution had been sought and that while the SSRP strategy was correct, its planned implementation was too ambitious.[17] This had now been addressed, in part as a result of the Arthur Andersen review. On the question of continuing slippage and timetable revisions, the Department responded that while there might be good and proper reasons why the timetable might slip further, there was now an attainable staged implementation program with a series of separately implementable subprojects.

3.28 A representative of UNISYS, in evidence given at the hearing on 8 December 1989, referred to the efficiencies which the Services have already achieved in some areas through single Service management of certain inventory items. He claimed that this concept could be taken further and that it would provide some of the benefits of reducing duplication without the necessity for producing a common core system. He stated:

> There is a high risk ... that SSRP will not be achieved in the form that it is currently envisaged and at the cost it is currently estimated to cost.[18]

3.29 The Committee noted with some concern that none of Australia's major allies have successfully implemented a common core supply system, although some have considered it. Despite 20 years of internal departmental reviews it appears to the Committee that Defence has given little consideration to the use of allies' supply systems as viable alternatives to the development of a completely new system such as SSRP. The Committee remains concerned that the Department has

16. Evidence, p. 98.
17. Evidence, p. 184.
18. Evidence, p. 329.

given insufficient consideration to the possibility of meeting its requirements by the use of computer systems and technology which have been proven by Australian allies.

3.30 The Committee is not convinced that the common core approach is best for Defence and concludes that despite improvements in technology there is insufficient evidence to show that the common core approach will effectively satisfy the requirements of the Department and the three Services.

Progress

3.31 The achievements of SSRP have not been encouraging. Little progress can be identified prior to 1988 and even since then, the Project has lacked continuous momentum. To quote a senior Department of Defence witness:

> It is true that progress overall on redeveloping the existing supply systems has proved more difficult and taken longer than the Department and the three Services would have liked. On a project of this scale and complexity some problems will inevitably arise. But the major factor that limited our ability to meet the original project schedules was the optimistic nature of those schedules, which required a level of resources which was not achieved. With hindsight you might say that we had a champagne appetite but only a beer income.[19]

3.32 As stated previously the lack of progress in SSRP led the Department in early 1988 to engage Arthur Andersen & Co to review the Project and the Senate in September 1988 to refer the matter of the Project's progress to the Committee for its examination. Both these reviews can be seen to have had some effect on the Project but they have not been alone in affecting SSRP. As time has passed SSRP has been modified and redefined to fit in with a changing environment which has resulted from various internal Defence reviews.

3.33 During the Inquiry, the Department of Defence provided the Committee with several submissions which updated the progress of SSRP. These submissions generally showed significant revisions to expected completion dates and reflected badly on the Project's short-term management. The submissions are reproduced in this Report as Appendices F to J.

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19. Evidence, p. 78.

3.34 The following is the summary from the 8 May 1989 submission from the Department of Defence:

> There has been considerable progress towards defining a common core system for the bulk holding stores of the three Services and Navy and Air Force base stores. Substantial progress has also been made in defining the technical infrastructure requirements (e.g. hardware requirements, communications requirements, network managements, computing facilities etc). Additionally, considerable progress has been achieved in defining a new system to provide much needed automated support for procurement and financial management activities at the Logistics/Support Commands of the Services.[20]

3.35 Although this reflects some optimism in the progress of the Project, it is hardly encouraging given the number of years the Project has been under way. A number of matters relating to the progress of SSRP have been identified by the Committee as being unsatisfactory:

- Errors of fact were identified by the Committee and remained unresolved on the DESINE Standard Price List and Addendum, and, in particular, the ANZ content of listed products.

- The procurement of hardware and software to satisfy the requirements of SSRP has made little use of the DESINE Contract considering the time that has elapsed since the Contract was signed.

- The specification of significant quantities of hardware and software for application production purposes was not scheduled to begin in earnest until some time after the awarding of the Prime Systems Integrator tender in mid - 1991, by which time the DESINE Contract had less than three years left to run.

- The specification of the requirements definitions for AUTOPROC and Depot/Base should have been completed by no later than a short time after the awarding of the DESINE Contract so that the implementation of equipment could have been accelerated. It was not.

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20. Evidence, p. 17.

- There were delays in finalising the selection of the commercial software package which impacted adversely on the specification of the requirements definition for the AUTOPROC and Depot/Base subprojects.

- There has been a lack of timely information on the required systems definition for the SSRP subprojects. This is one of the most serious of all the problems identified and it reflects badly on the administration and management of the overall Project.

- The evaluation and trial of a commercial applications software package for the common core systems was not sought at the same time as, or before, the Department of Defence evaluated hardware and software equipment for the applications platform of the DESINE Contract. This resulted in a delay in the implementation of the strategic operational software for the AUTOPROC and Depot/Base subproject.

- There has been a significant lack of direction by policy and technical areas in identifying the preferred Department of Defence implementation strategy for computer hardware and software, including new technology. For example, beyond the DESINE tender evaluation and despite statements by the Department of Defence openly declaring support for implementation under SAA, no specific evidence was presented to the Committee that the Department had evaluated IBM's Systems Application Architecture. This is a surprising situation given a quote attributed to a senior Defence official that, 'the principal description of DESINE would be Systems Application Architecture'.[21]

3.36 In relation to these matters the Committee concludes that the Department of Defence has not adequately considered the implications of new technology available under the DESINE Contract. Nor has the Department adequately considered the effect of the delays in completing the systems definitions for the separate AUTOPROC and Depot/Base subsystems or the effect of rescheduling tasks on the total SSRP.

3.37 The Committee's assessment is that slippages attributed by the Department to the lack of manpower, revised funding and the unexpected difficultly of some activities are in fact the result of poor administration and management of the Project at a global level.

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21. Evidence, p. 288.

3.38 The Committee sought to determine why the Prime Systems Integrator Request For Tender was not combined with either the DESINE Request for Tender or the commercial software package Request For Tender in order to facilitate a faster implementation of SSRP. It notes the Department of Defence's view that it was not possible to identify the Prime Systems Integrator earlier and the reasons why the Prime Systems Integrator role was not combined with the DESINE Request For Tender.[22] The Committee does not agree with the Department's views on these matters and is of the opinion that if a Prime Systems Integrator is to be employed on a development project, their selection should precede any major work on the project. This would appear to be normal industry practice.

3.39 The Department's arguments for delaying the Prime Systems Integrator Request For Tender are not valid. Preparation and evaluation delays in the commercial software package selection process meant that information relating to the preferred software solution remained unavailable even when the specifications for the Prime Systems Integrator Request For Tender were eventually finalised. Thus prospective tenderers for the Prime Systems Integrator were unaware of the selected commercial applications software at the time of tendering.

Primary Causes of Slippage

3.40 Throughout the life of SSRP, its subprojects have continually fallen behind schedule. This is shown by reference to Figures 3.1 and 3.2. Evidence provided by the Department of Defence suggested that there were several significant reasons for the slippage. They included:

- difficulties in staffing the Project;
- a scarcity of funds;
- overly optimistic assessments of what subproject deadlines should be;
- delays in the establishment of the DESINE Contract and continuing doubt as to products available via the Contract;
- delays in the evaluation of the supply/inventory application package caused by the Defence committee process; and
- the complexity of simultaneously meeting requirements of both the Department and the three Services.

22. Evidence, pp. S922-3, S939.

3.41 The Committee has found that the Department of Defence does not appear to have sufficiently taken into account the strategic direction of the DESINE Contract vendors or the Department's current strategic direction and has therefore concluded that the SSRP implementation plans, as based on the Arthur Andersen & Co Report, may no longer be practical. Of particular importance, given the current information technology revolution, is the impact of technology on the whole of the Department's strategic direction and not that of SSRP alone. The Committee is not confident that the current SSRP implementation plans necessarily align with the current strategic direction of the Department.

3.42 Additional information related to this came to the notice of the Committee in an article in the 10 September 1990 edition of *Computing Magazine* which detailed a need for implementation plans and strategic direction to coincide - something the Committee believes has been lacking in the past with regard to SSRP.

3.43 **The Committee recommends that:**

- **With a view to rationalising the content and number of SSRP tasks currently underway, the Department of Defence critically re-examine its current SSRP implementation plans to assess how they reflect the current information technology strategic direction of the Department and modify the plans where necessary to align them with this strategic direction.**

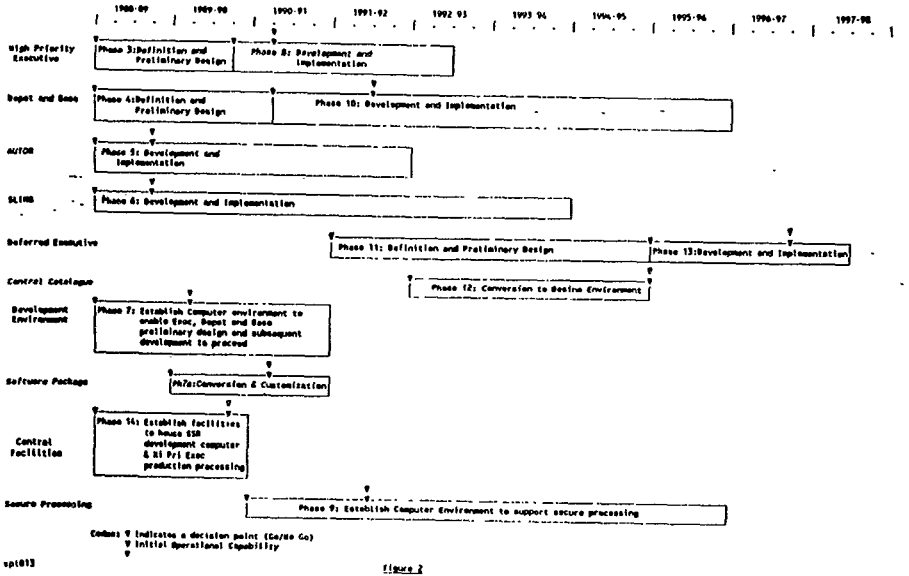
Costs and Benefits

3.44 Six analyses of costs and benefits were provided to the Committee. They were contained in:

- Business Review Working Group (BRWG) Dec 92 - revised 1986 *report*;
- the Arthur Andersen & Co Report;
- the Report of the SSRP Acquisition Council, provided on 13 June 1989;
- a submission from the Department of Defence dated 8 May 1989 (contains Financial Impact Statement 1983-98);

SSRP PHASES AS AT 10 MARCH 1989

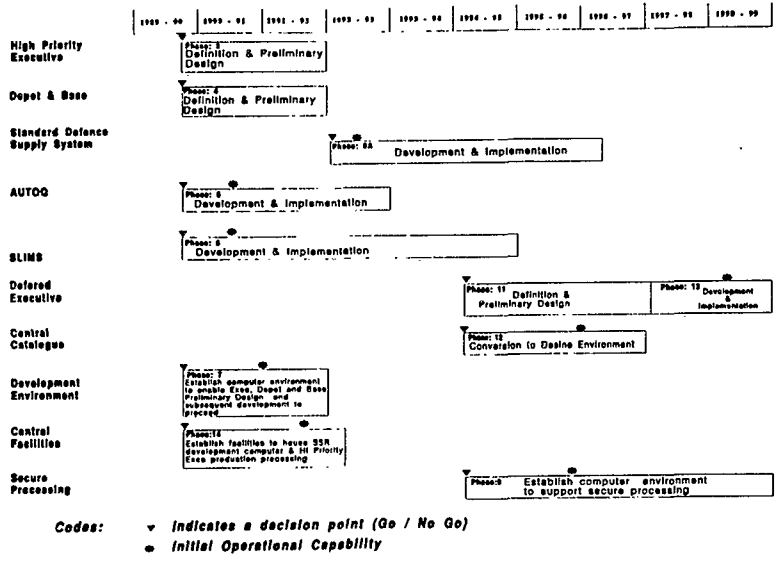
Figure 3.1



Source: Department of Defence Submission dated 10 March 1989, page 26.

SSRP PHASES AS AT 23 APRIL 1992

Figure 3.2



Source: Department of Defence Submission dated 23 April 1992, Attachment 1.

- a submission from the Department of Defence dated July 1991;
- a confirming submission on the Standard Defence Supply System from the Department of Defence dated 10 October 1991; and
- a submission from the Department of Defence dated April 1992 (which contains a document, *Financial Impact Statement 1983-01*).

3.45 The Arthur Andersen & Co Report contained estimates of costs and benefits derived by the consultant. Total costs of $433m and total benefits of $462m were identified in the life cycle table.

3.46 The Department of Defence chose to use the benefit estimate of Arthur Andersen in its 1989 submissions and in the Report of the SSRP Acquisition Council. However, the Arthur Andersen cost estimate was not used but a 1986 revised lower cost figure based on the BRWG report which is an inexcusable misuse of data which artificially raised the value of net benefits.

3.47 The Committee concluded that the base net benefit figures provided in the SSRP Acquisition Council and submissions of 8 May 1989 and July 1991 were inaccurate as the figures were not derived from a common base.

3.48 The Committee was concerned at some apparent inconsistencies between cost/benefits analyses provided at different times for SSRP. The time span of an analysis provided in April 1992 extended into a period when little cost was being incurred and maximum benefit was being realised. Benefits accrued from the Force Structure Review and other similar projects appear to have been incorrectly included in the benefits resulting from SSRP. Details of some of these apparent discrepancies are as follows:

a. The 1989 submission on the Financial Impact Statement covered the years 1983-98 with total costs of $369m and benefits of $462m. The 1992 submission increases the years covered to 2001, adding additional benefits for the three years, 1998-99, 1999-2000 and 2000-2001, of $158m and increased costs for the same period of $39m: an obvious distortion of additional benefits over the 1989 statement of a net $119m.

b. The 1992 submission also includes an additional entry under indirect benefits - 'Manpower' with further benefits of $144m not documented in the 1989 statement (a net $111m excluding years 1998-2001).

c. An additional line for 'reduced consumables' was added totalling some $21m net for 1983-98 in the 1991 submission which should not be included if a simple comparison is made with the original 1989 Financial Impact Statement. The Financial Impact Statement for comparative purposes should cover the period 1983-98.[23]

3.49 If the additional entries for 1998-2001 are excluded then total benefits fall by some $250m and costs by $39m to arrive at benefits for 1983-98 of $449m and costs of $397m for the 1991 Financial Impact Statement.

3.50 In view of the fact that these cost and benefit figures are not derived from the same common source, the Committee concludes that the cost/benefit justification of the common core approach is now under considerable threat because of this misrepresentation of costs and benefits.

3.51 The presentation of different reporting periods and additional entries in the 1991 cost/benefit statement lead the Committee to believe that it has been misled over the actual costs and benefits which accrue to SSRP.

3.52 *The Committee concludes that the Project's costings are not accurate.* The situation is further clouded by advice in the 23 April 1992 submission from the Department that benefits will be adversely affected by other departmental initiatives such as the Force Structure Review, the Commercial Support Program and the Defence Logistics Redevelopment Project. It is acknowledged that costs of SSRP will also fall, but clearly much less than benefits.

3.53 The apparent error of not using a common base for costs and benefits should be reviewed by the Department of Finance.

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23. See Appendix I.

3.54 **The Committee recommends that:**

- **The Department of Finance review its quality assurance procedures for the acceptance of data included in the reports of IT Acquisition Councils with a view to establishing whether there is a flaw in the IT Acquisition Council process.**

3.55 The Committee notes that a review of the IT Acquisition Council process is underway and awaits with interest the outcome of this review.

Additional Committee Concerns Over Cost Calculations

a) *Cost of the Evaluations of the Prime System Integrator and Commercial Applications Software Requests for Tender.*

3.56 During the course of the Inquiry the Committee sought additional details from the Department of Defence regarding the costs of various projects. The details provided led the Committee to question the degree of quality assurance in the Supply Systems Redevelopment Branch.

3.57 In the submission from the Department dated 18 January 1990 details were provided for the total costs of the evaluation process for the Prime Systems Integrator and commercial software package.

3.58 The staffing structure for the PSI evaluation process showed a total team of 29, of which ten were external consultants. A total cost for the evaluation process was given as $2.021m. However, in the same submission the costs of consultant/contractors, including expenditure to date and future obligations for the PSI evaluation process, were put at $1.945m. This apparent error was again repeated in a later submission dated 5 July 1990. Clearly, the $76,000 cost difference for the evaluation process cannot cover the remaining 19 people in the team.

3.59 Again total costs of $1.591m for the commercial application software package evaluation process were given at page 12 of the same document. Costs of consultant/contractors of $1.527m were identified at page 14 of the submission but the balance cannot cover the departmental staff costs. In addition, final costs of the evaluation process given at page B-8 of the 5 July 1990 submission showed a total cost of $0.89m. This clearly conflicts with information supplied earlier.

3.60 The Committee is very concerned that the Supply Systems Redevelopment Branch, which prepared the estimates, may still lack accurate details of the current and projected costs of its tasks.

3.61 **The Committee recommends that:**

- **The operation and management of the Supply Systems Redevelopment Branch be reviewed to ensure that appropriate project controls and procedures are now in place, especially in the area of quality assurance.**

b) *New Computer Technology*

3.62 The Committee considers that significant savings could be made if other than IBM/SAA products are considered for some aspects of SSRP. In its report 254, covering its examination of Project DESINE, the Committee recommended that in particular, options which may provide a lower level of benefits, but would also be less costly than other options, should be considered in any cost/benefits evaluation.

3.63 The need to consider options of lower cost for both hardware and software platforms is particularly relevant when considering the cost of the latest technology, such as Office Vision under SAA. The SAA option may prove complex and expensive when compared with personal computers with sufficient functionality to effectively operate in a technically superior and potentially cheaper alternative, the Windows environment. No evidence was provided to indicate that a full and detailed examination of SAA software and hardware strategy options had been costed. In fact the Committee experienced considerable difficulty in obtaining details of any full assessment of SAA implications.

3.64 By leaving such costing considerations until the engagement of a Prime Systems Integrator the Department of Defence has delayed a proper appreciation of the cost implications of following an SAA only platform strategy. It could be argued that a mixed strategy of limited SAA exposure could be warranted from a costing risk factor as well as a technology risk factor.

3.65 **The Committee recommends that:**

- **In view of the stated intention by the Department of Defence to follow the Systems Application Architecture strategy for implementation, the Department justify this**

proposition by providing alternative costed implementation *strategies* for the Supply Systems Redevelopment Project which reflect the alternative *options of technology available*; and

- **The Department of Defence review its current purchasing policies under the DESINE Contract to ensure that purchases are in line with the hardware and software strategy necessary for the future implementation of applications.**

c) *Re-assessment by the Department of Its Information Technology Requirements*

3.66 An additional concern of the Committee was that the Prime Systems Integrator Request For Tender indicated a substantial implementation of office automation, including personal spreadsheets and databases. The Committee was therefore surprised when the Department, at the 10 August 1990 public hearing, advised that office automation was '... not a specific function within [Defence's SSRP] charter'.[24]

3.67 The Committee was concerned that the inclusion of these options may be significantly more expensive in the SAA environment as a more powerful personal computer platform would be required than, for example, for the Windows environment.

3.68 The Department in its submission of 7 September 1990 stated that, 'the cost of hardware (in general) has significantly decreased and this trend is expected to continue'.[25] While this statement is correct, the decision by Defence to upgrade to fully specified personal computers[26] involves a major cost increase over earlier cost estimates for workstations where the hardware is more rudimentary and included a substantial number of dumb terminals and less sophisticated personal computers.

3.69 The Committee heard evidence regarding a possible 30% increase in the price of proprietary IBM software which would have a significant impact on the cost of SSRP. While the Department of Administrative Services negotiated a significant reduction in the proposed price rise, this situation confirmed the

24. Evidence, p. 684.
25. Evidence, p. S990.
26. 386SX machines with up to 6 megabytes of RAM.

Committee's concern that SSRP was following a proprietary rather than open systems solution.

3.70 The Committee concluded that there are significant additional costs associated with the purchase of new technology personal computer equipment for SSRP bearing in mind that Arthur Andersen & Co originally specified a significant number of dumb terminals (as opposed to personal computers). Also the current type of personal computer under consideration for the SSRP environment will require some 8 megabytes of memory and a hard disk capable of storing at least (80 megabytes) to perform in the SAA/DESINE environment.

3.71 These burgeoning technology requirements should be reviewed by the Prime Systems Integrator to ensure that the Department is not locked in to a high cost option to provide what are now generally considered basic workstation level facilities.

3.72 The Committee recommends that:

- The Prime Systems Integrator urgently provide new cost estimates for using the IBM personal computers and IBM proprietary software options in a Systems Application Architecture environment. The estimates should take account of the requirements for the additional technology requirements such as RAM, hard disk and level of technology platform required in the Supply Systems Redevelopment Project/DESINE environment.

3.73 The Committee further recommends that:

- The Prime System Integrator urgently provide costings for alternative solutions which will provide similar computing facilities, without the high overheads needed to support applications such as Office Vision in the OS/2 Extended Edition environment, using Windows.

Project Management

3.74 During the Inquiry a significant amount of evidence was received about the level of effort that the Department of Defence places on effective project management for the SSRP.

3.75 At the first public hearing, on 8 May 1989, Group Captain N K Wainwright described the proprietary life cycle development approach, known as SPECTRUM, which is used by the Department in managing the Project. SPECTRUM was described as a systematic progression of systems analysis and development processes, consisting of three phases: system definition, system design and system implementation.

3.76 To identify the range of project management activities in use, the Department of Defence was asked to provide additional information on the reporting structure within Supply Systems Redevelopment Branch and the reporting structure between the Branch and other areas in the Department. The Department was also asked to provide details about the application of project management techniques, critical path management and fast tracking methods applied to the development of subprojects.

3.77 No one significant reason could be found by the Committee for the ineffectiveness of project management techniques other than in the fast tracking methods, where short cuts were identified in defining logical user requirements and the documentation of input/output screen, and reports during systems definition and alternatives analysis.

3.78 The Committee considers the identification of reporting requirements to be of paramount importance in any system definition. These requirements are also necessary for the evaluation and implementation of the supply/inventory software package. The development of prototype Local Area Networks and pilots for the system design stage, without full logical definitions of user requirements, also concerned the Committee, especially the resultant claims of advancing the system design of technical applications for warehouses by 18 months.

3.79 The Committee noted that although there was an appreciation and acceptance of interrelationships between subprojects by the SSRP, there did not appear to be a management tool which was consistently applied to ensure that dependent integration activities were completed in an orderly sequence.

3.80 The Committee recommends that:

- The Defence Audit Branch examine the project management activities used in relation to Supply Systems Redevelopment Project to ensure that there is sufficient evidence of their consistent application, especially in the day-to-day running of subprojects.

- In conducting this examination, close attention be paid to the introduction of extra unscheduled activities and activities undertaken out of logical sequence, such as the completion of the Advisability Study after the release of the Prime Systems Integrator Request For Tender.

3.81 The Committee further recommends that:

- The Defence Audit Branch examine and report to the Supply Systems Redevelopment Project Steering Committee where short cuts have occurred in the application of project management activities; in particular, any reduction in SPECTRUM activities, where insufficient detail may have been collected which would affect the quality assurance aspects of the documentation held for the system definition of subprojects.

3.82 The Committee examined the Supply Systems Redevelopment Branch's basic structure commencing with the assumption that the Branch is responsible for the development of applications for SSRP. During the course of the Inquiry, the Committee became concerned that the scope of activities and nature of tasks being performed within the Branch was not necessarily in the best interests of the Department, particularly for the advancement of the SSRP. The inclusion of responsibility for tender evaluations within the SSRP project team has placed an additional burden on the Assistant Secretary, Supply Systems Redevelopment Branch. Tender evaluations could have quite properly been undertaken by a separate area of the Department.

3.83 The Committee recommends that:

- The Department of Defence establish a separate Branch to administer the preparation and evaluation of information technology related tenders.

CHAPTER 4

OTHER MATTERS

. Use of Consultants
. Reporting Hierarchy
. ANZ Content

Use of Consultants

4.1 The Committee is particularly concerned that there is a significant commitment by the Department in the engagement of contractors/consultants for the implementation of SSRP. Over $60m is projected to be spent on contractors/consultants up until 2001.

4.2 In relation to SSRP, the Committee is of the view that the engagement of consultants/contractors should be for specifically designated tasks which are both measurable and to be achieved over a fixed period of time. It is paramount that the necessary skills transfers occur when there is an ongoing need for specific types of skill.

4.3 The Committee was not provided with any evidence to indicate that the Department of Defence has trained permanent staff so that they would obtain the skill levels required.

4.4 The Committee recommends that:

. **The Department of Defence develop and implement procedures to ensure that the necessary skills transfer occurs between consultants/contractors and departmental personnel to reduce dependence on consultants and contractors.**

4.5 The Committee is concerned by the evidence of Mr Baker from IBM Australia Limited which suggests that there has been very limited consultation between the Department of Defence and IBM over the provision of technical advice

and support. The Committee believes that the current methods of employing independent consultants in the Supply Systems Redevelopment Branch rather than those with IBM expertise from IBM under the Contract have adversely affected the timeliness of SSRP and led to increased costs.

4.6 The Department should seek technical briefings from IBM where possible rather than engage additional consultants to provide similar information. In this regard the Committee believes that the timeliness of some activities would have improved had the Department used IBM advice, rather than relying solely on independent in-house consultants for technical advice.

4.7 **The Committee recommends that:**

- **Defence Audit seek justifications for the continued engagement of each consultant/contractor with information technology skills, and in particular examine any lack of skills transfer from these consultants/contractors who have been engaged for a considerable time with a view to terminating contracts as soon as possible.**

4.8 The Committee further concluded that the engagement of the same consultants/contractors for both tender preparation and evaluation places the Department in a more vulnerable position than if the two stages were undertaken by different consultants/contractors. Both stages should be separate and independent.

4.9 The tender specification and evaluation methodology/specifications should be clear enough so that the Department does not have to rely on the authors of the Request For Tender for the evaluation process. Where consultants/contractors are used, it would be a good test of the completeness of the tender specifications if another group of independent consultants/contractors were to undertake the tender evaluation. The Committee is concerned that, unless specifically provided for, consultants/contractors do not have an ongoing responsibility for their decisions once their work is completed.

4.10 **The Committee recommends that:**

- **Department of Defence review its policy of engaging the same consultants/contractors for the preparation of tender specifications as well as the evaluation of the same tender with a view to ensuring that there is**

independence in the external advice given for each process and that each stage of the process is clearly defined.

Reporting Hierarchy

4.11 The Committee has noted that the current status reporting and review/project control procedures are not effective. One basis for this is the continual slippages in Project activities. Control and interface requirements do not appear to be adequately addressed by the SSRP and this has been supported by the Arthur Young Supply Services Report which recommended that a supply information centre should be created to co-ordinate activities.

4.12 The Committee considers that the Department of Defence should adopt a more rigorous approach on reviewing SSRP through the establishment of an effective and responsive review panel tasked to progress the project in a more timely manner.

4.13 **In support of a responsive review panel, the Committee recommends that:**

- **A supply information centre be established to co-ordinate the identification of the supply requirements, management standards, performance and interface standards between the three Services.**

ANZ Content

4.14 One of the original subcontractors to the DESINE Contract apparently experienced difficulty with maintaining the original level of tendered ANZ content and this resulted in the introduction of alternative personal computer suppliers by the Department of Administrative Services.

4.15 At the public hearing of 10 August 1990 a Department of Defence witness stated:

> We monitor the purchases made under the Contract to keep track of the proportion of the total that on the basis of the recorded ANZ content is in fact going to Australian industry.[1]

4.16 The Committee understands that there is no contractual obligation for IBM or the Commonwealth to monitor purchases. However, there is obligation on IBM, and its subcontractors, to ensure that ANZ content is at least maintained at the level tendered in the first instance. Improvements in ANZ content should be encouraged by the Commonwealth over the life of the contract.

4.17 **The Committee recommends that:**

- **The Department of Defence monitor more vigorously the levels of ANZ content in the DESINE Price List to ensure that no erosion of ANZ content occurs.**

1. Evidence, p. S704.

CHAPTER 5

GENERAL COMMENTS

. DESINE
. Beyond DESINE
. SSRP

DESINE

5.1 Much of the Committee's concern about DESINE centred around DESINE being based on IBM's System Application Architecture (SAA). While SAA may prove to be capable of supporting Open Systems Interconnect (OSI) standards, the Committee is concerned at the risk that its adoption may lead the Department to develop a computing environment which only directly supports IBM proprietary products.

5.2 The DESINE Contract itself has many aspects which are of concern to the Committee. The sole supplier clause has created a great deal of somewhat contradictory discussion at hearings and the Committee remains uncertain as to the extent to which products other than those supplied by IBM and its subcontractors may be acquired by the Department. The role of IBM in determining whether its solution or a competitor's solution is to be adopted is also questioned by the Committee. The Committee has therefore made a number of recommendations which it believes will help to minimise the impact of a lack of foresight by the original drafters of the DESINE Contract.

5.3 The Committee has concluded that the veto clause inserted in the DESINE Contract in an attempt to lessen the impact of the Sole Supplier Clause is possibly ineffective and could be anomalous. The Committee is critical of the efforts of the Department of Administrative Services and the Attorney-General's Department in the drafting of this clause. The Committee requested a copy of the advisings provided on this subject but was denied access. As a result the Committee has been limited in its ability to comment.

5.4 The combination of the decision to adopt SAA and the Sole Supplier Clause led the Committee to believe that there is a real risk that Defence could become locked in to an IBM proprietary environment beyond the duration of the DESINE Contract.

5.5 The Committee, through its recommendations, has sought to ensure that this does not occur and that the Department is left with the option to migrate to open systems without major disruption.

5.6 The desirability of moving towards open systems and the widespread use of UNIX by Defence Departments in Europe, the United States and Canada lead the Committee to question the exclusion of UNIX based solutions from DESINE Contract considerations.

5.7 The Committee acknowledges that UNIX at the time the DESINE tenders were considered, was not as mature an operating environment as it is today, but firmly believes that the adoption of a solution with a UNIX component would have left the way open to international cooperation on system development. This, along with the ease of future migration to newer technology hardware platforms through the separation of functions from the underlying technology, could have led to significant dollar savings in the future.

5.8 The initial exclusion of all UNIX based products from the Contract also caused concern in those areas of the Department and the Services already heavily committed to the use of UNIX. The situation was worsened by the length of time taken by the UNIX Working Party to reach conclusions which were obvious to Committee members very early in the Inquiry.

5.9 The Committee concluded that the requirement for UNIX solutions has not been properly satisfied by the DESINE Contract, nor have the issues associated with UNIX solutions been adequately addressed to ensure that the future requirements of the Department and Services are met. IBM UNIX products were placed on the DESINE Contract without proper evaluation or the evaluation of alternative options.

5.10 **The Committee recommends that:**

- **The Department of Defence re-activate the UNIX Working Party and task it with exploring options for the introduction of alternative UNIX solutions.**

5.11 **The Committee further recommends that:**

- **A preference policy be established to favour products which increase support for open systems rather than proprietary products.**

Beyond DESINE

5.12 The Committee is concerned about the future direction of SSRP, especially once the DESINE Contract expires in two years time. Consequently, a number of recommendations have been made in this report to lay foundations for an easy transition to any new environment, post-DESINE. The recommendations include specific measures to be put in place now in order to prevent a lock-in to IBM products exclusively.

5.13 The Department of Defence must commence planning now for alternative solutions which are not necessarily IBM sourced. The Committee is adamant that there must be no extension of the DESINE Contract. Nor should there be any form of commitment by the Department of Defence to continue to give preference to IBM solutions after the expiry of the DESINE Contract.

5.14 **The Committee recommends that:**

- **The Department of Defence not extend the DESINE Contract.**

5.15 It should be stressed that the exclusion of IBM projects post-DESINE is not the objective of this recommendation. The objective is to ensure that at all times the Department of Defence obtains the most suitable product and therefore the best solution. Although there will be some residual dependencies through previously supplied proprietary solutions, the current direction of computing requires a strong commitment to open systems and specifically to Australian GOSIP.

5.16 This will require the Department of Defence to vigilantly scrutinise purchasing decisions to ensure that lock-in will not occur and to minimise the pockets of proprietary hardware and software solutions which will continue beyond the life of the DESINE Contract.

5.17 This monitoring could be achieved with an information technology advisory group sponsored by the Inspector-General and including representatives of the Departments of Administrative Services and Finance.

5.18 **The Committee recommends that:**

- **An information technology advisory group be established, sponsored by the Inspector-General and including representatives of the Departments of Administrative Services and Finance, to monitor information technology purchasing decisions in the Department of Defence.**

5.19 One aspect of this monitoring should be to ensure that the strategic direction of computing within the Department matches the strategic direction of the Department of Defence as a whole. Previous attempts to meet this requirement are not considered by the Committee to have been successful, particularly in relation to technical advice provided by departmental officers in the technical areas of the Department. The Committee recognises that the Supply Systems Redevelopment Branch is not the source of this problem, but rather the policy areas of the Department which have not always displayed a full appreciation of the implications of their decisions on the Department's computing infrastructure. The Committee also concluded that there are areas in the Department and the three Services which pursue parochial interests rather than looking to the needs of the Department as a whole. Hence the Committee sees the establishment of an IT advisory group containing members from outside the Department as a highly desirable step towards ensuring the future success of the Department in meeting its information technology needs beyond DESINE.

SSRP

5.20 The Committee set out to determine what progress has been made towards implementing SSRP and in so doing examined the effect on this progress of the common core approach.

5.21 The Committee found that given the length of time SSRP had been running, very little had been achieved in the early part of the Project - particularly in the years prior to 1988. The Committee believes that this is in part due to a lack of commitment by the Department and in part poor administration and management of the Project at a global level, particularly in its early years. Another factor is the

recurrent disruption and lack of continuity in management caused by the rotation of Service personnel every two years which, in the Committee's view, has significantly slowed the Project and continues to do so.

5.22 The common core approach is considered by the Committee to have had a major impact on the progress of SSRP in that it imposed a level of complexity on the Project which would not otherwise have existed. It constitutes a high risk approach. Based on evidence given to the Committee, the Project is too large and too complex to manage effectively and may yet prove to be unachievable in a cost-effective manner. The Committee would prefer to see the common core approach proven with SSRP limited initially to the development of a minimum viable system. In this way any losses accruing through failure of the Project could be minimised.

5.23 The Committee believes it is essential that performance indicators are developed as indicated by a senior Department of Defence witness at the hearing on 8 May 1989. These indicators should be developed at the design stage of each phase of the Project and further implementation should be dependent upon specific performance targets being met. The Committee would be greatly concerned if performance indicators were only developed at the conclusion of the Project for the Project as a whole.

5.24 The Committee was concerned that cost/benefit figures provided by the Department of Defence were inaccurate. It appears to the Committee that the Department chose to base costs and benefits from different sources in order to maximise apparent benefits, and that benefits accruing from other initiatives within the Department were in some cases attributed to SSRP.

5.25 The Committee notes that some phases of SSRP have a negative cost/benefit and considers that these phases should be critically re-assessed prior to any funding being sought.

5.26 The Committee is concerned that with the delays in implementation, the system design concept has become dated in that it has not changed in line with technology advances which have been significant in recent years. An example of this is that although the workstations have been upgraded from dumb terminals to fully functional microcomputers, the system design has not been altered in order to move some of the processing logic to these workstations as is the current trend. Thus the system remains a classic mid-1980s solution with all processing performed by a mainframe.

5.27 The Committee is concerned that there has been very limited consultation between the Department of Defence and IBM over the provision of technical advice and support and that many of the technical briefings on the options of IBM hardware and software have been provided in-house by the independent consultants, even though these same briefings may have been provided at no charge by IBM.

5.28 The Committee believes that the timeliness of some activities would have improved had the Department used IBM advice, rather than relying solely on independent in-house consultants for technical advice and that the extensive use of contractors with no firm policy of skills transfer has led to a continuing dependence on their skills.

5.29 While the Committee sought some information on interfaces between FSRP (Financial Systems Redevelopment Project) and MSRP (Manpower Systems Redevelopment Project) there was no examination of the quality of their solutions, including both the interface and their total solutions. FSRP and MSRP were not part of the original brief. Many of the recommendations for SSRP, especially with regard to lock-in to IBM, must be considered for FSRP and MSRP to ensure the viability of these systems beyond DESINE.

5.30 The Committee does not consider that this Report should conclude the external examination of the management and administration of SSRP.

5.31 **The Committee recommends that:**

- **The Australian National Audit Office commence an Efficiency Audit of the Supply Systems Redevelopment Project in 1993.**

Hon G F Punch, MP
Chairman
24 June 1992

APPENDIX A

CONDUCT OF THE INQUIRY

Appendix A details the public hearings, in camera hearings and inspections conducted by the Committee and its predecessor the Sixteenth Committee, which ceased to exist with the dissolution of the House of Representatives on 19 February 1990 for the March 1990 federal election.

PUBLIC HEARINGS

8 May 1989	**Witnesses**
	Mr A J Ayers, Secretary, Department of Defence
	Brigadier P J Bray, Director General of Supply - Army, Department of Defence
	Brigadier D B Ferguson, Director General, Defence Force Logistics, Department of Defence
	Commodore D S Ferry, Acting First Assistant Secretary, Information Systems Policy, Department of Defence
	Major-General J C Grey, Acting Head of Defence Logistics, Defence Logistics Organisation, Department of Defence
	Mr F R Harvey, Inspector-General, Department of Defence
	Dr M K McIntosh, Deputy Secretary, Acquisition and Logistics, Department of Defence
	Mr M J McNamara, Acting Chief of Logistics Development, Department of Defence
	Air Commodore P G Newton, Assistant Chief, Air Staff - Supply, Royal Australian Air Force

Mr T C D Smith, General Manager, Supply Systems Redevelopment Branch, Department of Defence

Commodore M J Youl, Director, General Naval Logistics Policy, Department of Defence

Observers

Mr A J Wood - Australian National Audit Office

Mr A Pearson - Department of Finance

Mr W J Brophy - Department of Finance

14 June 1989

Witnesses

Mr A J Ayers, Secretary, Department of Defence

Brigadier P J Bray, Director General of Supply - Army, Department of Defence

Mr I P Brown, Assistant Secretary, Logistics Computer Centre, Department of Defence

Brigadier D B Ferguson, Director General, Defence Force Logistics, Department of Defence

Commodore D S Ferry, Acting First Assistant Secretary, Information Systems Policy, Department of Defence

Major General J C Grey, Acting Head of Defence Logistics, Defence Logistics Organisation, Department of Defence

Mr F R Harvey, Inspector-General, Department of Defence

Dr M K McIntosh, Deputy Secretary, Acquisition and Logistics, Department of Defence

Mr M J McNamara, Acting Chief of Logistics Development, Department of Defence

Air Commodore P G Newton, Assistant Chief, Air Staff - Supply, Royal Australian Air Force

Mr K A J Rogers, Director, Logistics Systems Development, Navy, Department of Defence

Mr T C D Smith, General Manager, Supply Systems Redevelopment Branch, Department of Defence

Commodore M J Youl, Director, General Naval Logistics Policy, Department of Defence

Observers

Mr A J Wood - Australian National Audit Office

Mr W Brophy - Department of Finance

Mr A Pearson - Department of Finance

14 July 1989

Witnesses

Mr R Andrew, Assistant Secretary, Information Systems Policy Division, Department of Finance

Mr A J Ayers, Secretary, Department of Defence

Group Captain D T Bowden, Past Director of Information Systems, Royal Australian Air Force, Department of Defence

Brigadier P J Bray, Director General of Supply - Army, Department of Defence

Mr I P Brown, Assistant Secretary, Logistics Computer Centre, Department of Defence

Brigadier D B Ferguson, Director General, Defence Force Logistics, Department of Defence

Commodore D S Ferry, Acting First Assistant Secretary, Information Systems Policy, Department of Defence

Mr F R Harvey, Inspector-General, Department of Defence

Commodore A L Hunt, Director-General, Naval Programs and Resource Management, Royal Australian Navy, Department of Defence

Dr M K McIntosh, Deputy Secretary, Acquisition and Logistics, Department of Defence

Mr M J McNamara, *Acting Chief of Logistics* Development, Department of Defence

Air Commodore P G Newton, Assistant Chief, Air Staff - Supply, Royal Australian Air Force

Colonel D J O'Neill, Director, Command and Control Systems, Army, Department of Defence

Captain J L Raleigh, Director, Joint Command and Control, Headquarters, Australian Defence Force, Department of Defence

Mr T C D Smith, General Manager, Supply Systems Redevelopment Branch, Department of Defence

Commodore M J Youl, Director, General Naval Logistics Policy, Department of Defence

Observers

Mr A J Millican - Australian National Audit Office

Mr W J Brophy - Department of Finance

Mr A Pearson - Department of Finance

8 December 1989

Witnesses

Mr A J Ayers, Secretary, Department of Defence

Mr W J Brohpy, Director, ADP Applications, Financial Management Division, Department of Finance

Mr P W Goodwin, Acting Director, Defence Policy Section, Department of Finance

Major General J C Grey, Assistant Chief of the Defence Force for Logistics, Defence Logistics Organisation, Department of Defence

Mr A Maclean, Principal Adviser, Financial Management Division, Department of Finance

Dr M K McIntosh, Deputy Secretary, Acquisition and Logistics, Department of Defence

Mr R F Nissen, Divisional General Manager, UNISYS Australia

Mr R G Pitt, General Manager, Purchasing and Sales Group, Department of Administrative Service

Mr V Shevchenko, Assistant General Manager, Information Technology and ACT Purchasing, Purchasing and Sales Group, Department of Administrative Services

Mr A J Wood, Acting Assistant Auditor-General, Information Technology Audit Branch, Australian National Audit Office

Observers

Mr A J Wood - Australian National Audit Office

Mr W J Brophy - Department of Finance

Mr P W Goodwin - Department of Finance

Mr A Maclean - Department of Finance

29 January 1990

Witnesses

Mr T R Baker, Director, Marketing Operations, IBM Australia Ltd

Mr W J Brophy, Department of Finance

Mr P W Goodwin, Department of Finance

Mr A Maclean, Principal Adviser, Financial Management Division, Department of Finance

Mr R G Pitt, General Manager, Purchasing and Sales Group, Department of Administrative Services

Mr V Shevchenko, Assistant General Manager, IT and ACT Purchasing Branch, Purchasing and Sales Group, Department of Administrative Services

Observers

Mr A J Wood - Australian National Audit Office

Mr W J Brophy - Department of Finance

Mr P W Goodwin - Department of Finance

Mr A Maclean - Department of Finance

10 August 1990

Witnesses

Air Commodore D T Bowden, Director-General, Communications and Information Systems, Department of Defence

Commodore M B Forrest, Director-General, Naval Logistics Policy, Royal Australian Navy, Department of Defence

Major General J C Grey, Assistant Chief of the Defence Force for Logistics, Department of Defence

Mr F R Harvey, Inspector-General, Department of Defence

Colonel J G Mears, Director of Ordnance, Army Office, Department of Defence

Air Commodore P G Newton, Director-General of Logistics Development, Logistics Command, Royal Australian Air Force, Department of Defence

Mr A D Powell, Acting Deputy Secretary, Acquisition and Logistics, Department of Defence

Mr T C D Smith, General Manager, Supply Systems Redevelopment Branch, Department of Defence

Mr L K Webcke, Acting Assistant Secretary, Information Systems Branch, Department of Defence

Mr A J Wood, Acting Assistant Auditor-General, Information Technology Audit Branch, Australian National Audit Office

Observers

Mr A J Wood - Australian National Audit Office

Mr W Brophy - Department of Finance

Mr A Pearson - Department of Finance

15 October 1991

Witnesses

Air Commodore D T Bowden, Director-General, Communications and Information Systems, Department of Defence

Mr I P Brown, Assistant Secretary. Logistics Computer Centre, Department of Defence

Lieutenant-Colonel A M Chambers, Head, Army User Group, Department of Defence

Mr N S Collings, Director, Technical Services Supply Systems Redevelopment Branch, Department of Defence

Commodore M B Forrest, Director-General, Naval Logistics Policy, Royal Australian Navy, Department of Defence

Major General S N Gower, Assistant Chief of the Defence Force for Logistics, Logistics Division, Department of Defence

Mr F R Harvey, Inspector-General, Department of Defence

Mr G J Haslem, Director, Supply Systems Redevelopment Project, Department of Defence

Group Captain J E Kentish, Acting General Manager, Supply Systems Redevelopment Project, Department of Defence

Group Captain J A Payne, Manager, Major Projects Requirements, Logistics Command, Department of Defence

Mr A D Powell, First Assistant Secretary, Project Development and Communications, Department of Defence

Mr V Shevchenko, Assistant General Manager, IT Contracts and Standards, Department of Administrative Services

Mr L K Webcke, Assistant Secretary, Information Systems, Department of Defence

Observers

Mr A J Wood - Australian National Audit Office

Mr P W Goodwin - Department of Finance

Mr W J Brophy - Department of Finance

IN-CAMERA HEARINGS

The Sixteenth Committee of the Thirty-fifth Parliament conducted two in-camera hearings - one on 2 August 1989 the other on 14 August 1989.

INSPECTIONS

The Committee and its predecessor, the Sixteenth Committee, conducted a number of inspections. The Sixteenth Committee inspected the Holsworthy and Moorebank Supply Stores on 6 November 1989 while the present Committee conducted inspections of the Air Force and Army Logistics Command in Melbourne on 19 July 1990, the Defence Science and Technology Organisation, Salisbury, SA on 20 July 1990, the Navy Supply Centre, Zetland on 3 August 1990 and also on the same day the Moorebank Supply Stores.

APPENDIX B

LIST OF SUBMISSIONS AND DOCUMENTS AUTHORISED FOR PUBLICATION

1. Submission dated 10 March 1989 from the Department of Defence.

2. Supplementary submission dated 13 June 1989 from the Department of Defence.

3. Supplementary submission dated 11 July 1989 from the Department of Defence.

4. Supplementary submission dated 13 July 1989 from the Department of Defence.

5. Submission dated 7 July 1989 from Dr B R Groves.

6. Letter dated 13 July 1989 from the Assistant General Manager, ACT Operations Branch, Purchasing and Sales Group, Department of Administrative Services, Mr V Shevchenko to the Acting First Assistant Secretary, Information Systems Policy Division, Department of Defence, Commodore D S Ferry.

7. Letter dated 5 July 1989 from Mr K J Ross per the Australian Government Solicitor to the Secretary, Department of Administrative Services Purchase and Sales Group.

8. Letter dated 22 June 1989 signed by Mr S Wolter for the Assistant General Manager, ACT Operations Brach, Department of Administrative Services to the Secretary, Department of Defence.

9. Letter dated 20 June 1989 from the Assistant General Manager, ACT Operations Branch, Department of Administrative Services, Mr V Shevchenko to the Senior Assistant Secretary, Contracts 1 Branch, Australian Government Solicitor's Office.

10. Letter dated 15 November 1988 from the Vice-President and Group General Manager, UNISYS, Mr I Shiers, to the Secretary, Department of Defence.

11. Letter dated 25 November 1988 from the Secretary, Department of Defence Mr A Ayers to the Vice President and Group General Manager, UNISYS, Mr I Shiers.

12. Letter dated 10 June 1988 from the Subcontract Program Manager, IBM, Sydney, Mr D Dickmann to the Northern Area Manager, CINCOM Systems of Australia Pty Ltd, Mr J Starkey.

13. Letter dated 14 August 1989 from the Managing Director and Chief Executive Officer of IBM, Mr B Finn.

14. Submission dated 30 August 1989 from IBM Australia Ltd.

15. Letter dated 14 August from the First Assistant Secretary, Defence and Government Division, Department of Defence, Mr E R Thorn.

16. Letter dated 25 August 1989 from the Inspector-General, Department of Defence, Mr F R Harvey.

17. Letter dated 25 August 1989 from the Auditor-General, Mr J C Taylor.

18. Supplementary submission dated 29 August 1989 from the Department of Defence.

19. Submission dated 31 August 1989 from Mr M Carroll.

20. Letter dated 29 August 1989 from the First Assistant Secretary, Financial Management Division, Department of Finance, Mr D A Shand.

21. Facsimile letter dated 29 August 1989 from the Principal, Computer Audit Group, Office of the Canadian Auditor-General, Mr J F Cooper, to the Acting Deputy Auditor-General, Australian Audit Office, Mr M J Jacobs.

22. Letter dated 13 September 1989 from the Inspector-General, Department of Defence, Mr F R Harvey.

23. Letter dated 13 September 1989 from the Acting First Assistant Secretary, Financial Management Division, Department of Finance, Mr I McPhee.

24. Letter dated 29 August 1989 from the Chief Scientist, United States General Accounting Office, Dr R B Stillman, to the Acting Deputy Auditor-General, Mr M J Jacobs.

25. Letter dated 16 October 1989 from the Assistant General Manager, ACT Operations Branch, Purchasing and Sales Group, Department of Administrative Services, Mr V Shevchenko.

26. Supplementary submission dated 18 October 1989 from the Department of Defence.

27. Supplementary submission dated 4 December 1989 from the Department of Defence.

28. Supplementary submission dated 22 November 1989 from the Department of Defence.

29. Supplementary submission dated 1 December 1989 from the Department of Defence.

30. Draft Arthur Young Report on Defence Supply Services - pp 133, 135 and 138.

31. Letter dated 5 December 1989 from the Inspector-General, Department of Defence, Mr F R Harvey.

32. Letter dated 4 December 1989 and attachments from the Deputy Secretary, Department of Administrative Services, Mr A A Hillier.

33. Submission dated 1 December 1989 from UNISYS.

34. Supplementary submission dated 4 December from the Department of Defence.

35. Letter dated 18 October 1989 and attachments from Mr V J Kronenberg per the Inspector-General, Department of Defence.

36. Letter dated 22 November 1989 from the Inspector-General, Department of Defence, Mr F R Harvey.

37. Supplementary submission dated 1 December 1989 from the Department of Defence.

38. Letter dated 5 December 1989 from the Inspector-General, Department of Defence, Mr F R Harvey.

39. Letters dated 14 August 1989 and 24 January 1990 from the Principal Adviser, Financial Management Division, Department of Finance, Mr A Maclean.

40. Supplementary submission dated 9 July 1990 from the Department of Defence.

41. Supplementary submission dated 5 July 1990 from the Department of Defence.

42. Supplementary submission dated 6 February 1990 from IBM Australia Ltd.

43. Letter dated 6 April 1990 from the Senior Director, IT Audit, Australian National Audit Office, Mr A J Wood.

44. Supplementary submission dated 4 April 1990 from the Department of Defence.

45. Letter dated 19 December 1989 from the Inspector-General, Department of Defence, Mr F R Harvey.

46. Letter dated 18 January 1990 from the Inspector-General, Department of Defence, Mr F R Harvey.

47. Letter dated 22 January 1990 from Mr A J Stanley on behalf of the Inspector-General, Department of Defence.

48. Letter dated 8 August 1990 from the Principal Adviser, Financial Management Division, Department of Finance, Mr A Maclean.

49. Supplementary submission dated 7 September 1990 from the Department of Defence.

50. Supplementary submission dated 14 September 1990 from the Department of Defence.

51. Supplementary submission dated 25 September 1990 from the Department of Defence.

52. Letter dated 25 September 1990 from the General Manager, Purchasing and Sales Group, Department of Administrative Services, Mr R Pitt.

53. Facsimile letter dated 9 February 1990 from Information Systems Policy Division, Department of Defence.

54. Letter dated 24 January 1990 from the Auditor-General, Mr J C Taylor, AO.

55. Letter dated 13 July 1990 and attachments from the Inspector-General, Department of Defence, Mr F R Harvey.

56. Letter dated 18 October 1990 and attachment from the Principal Adviser, Financial Management Division, Department of Finance, Mr A Maclean.

57. Letter dated 9 July 1991 and attachments from the Inspector-General, Department of Defence, Mr F R Harvey.

58. Legal opinion dated 9 August 1991 and attachment provided by Clayton Utz.

59. Memorandum and enclosed supplementary submission dated 10 October 1991 from the Department of Defence.

60. Memorandum dated 11 October 1991 and attachment from the Department of Defence.

61. Memorandum dated 29 October 1991 and attachment from the Inspector-General, Department of Defence, Mr F R Harvey.

62. Memorandum dated 10 April 1992 and attachments from the Inspector-General, Department of Defence, Mr F R Harvey.

63. Memorandum dated 23 April 1992 and attachments from the Inspector-General, Department of Defence, Mr F R Harvey.

64. Memorandum dated 27 April 1992 and attachments from the Inspector-General, Department of Defence, Mr F R Harvey.

APPENDIX C

LIST OF EXHIBITS

No.	Title
1.	PP 115-145 and Appendix A, B, C, E and F of a submission dated 10 March 1989 from the Department of Defence, and Department of Defence Departmental Circular Memorandum No. 59/89.
2.	Department of Defence Departmental Circular Memorandum No. 60/89
3.	Arthur Andersen & Co. *Department of Defence Review of Supply Systems Redevelopment Project; Volumes I and II.*
4	Arthur Young. *Defence Supply Services Report; Volumes I, II and III.*
5.	DESINE Standard Price List, dated 1 July 1990.
6.	Sony audio cassettes presented to the Committee by Mr P Taylor, Canberra Branch Manager, CINCOM.
7.	Two audio cassette presented to the Committee by representatives from UNISYS.
8.	Copies of six overhead transparencies presented to the Committee by representatives of UNISYS.
9.	Department of Finance. *Guidelines for the operation of ADP Acquisition Councils.* Department of Finance, Canberra 1988.
10.	HQADF Communications and Information Systems Branch. *Report of the Defence Working Party on UNIX.* Directorate of Departmental Publications, Canberra 1990.
11.	*DESINE Newsletter* No. 1.
12.	*Computing Magazine*, September 10, 1990
13.	Department of Defence, *Defence Report 1988-89.* Australian Government Publishing Service, Canberra 1989.
14.	Amendment No. 2 to Request For Tender (RFT) 59/78320W.

15. Purchasing and Sales Group, ACT Operations Branch, Commonwealth Department of Administrative Services. *Request For Tender for the Supply of a Supply/Inventory Package for the Supply Systems Redevelopment Project for Department of Defence. Request No: RFT 62/79561M-1; Volumes I and II.*

16. Purchasing and Sales Group, ACT Operations Branch, Commonwealth Department of Administrative Services. *Request for Tender for the Supply of Prime Systems Integrator Services for the Supply Systems Redevelopment Project for the Department of Defence. Request No:RFT 59/108066L-1.*

17. Supplementary information, dated 16 October 1989, to the Contract Price List (Schedule A of the DESINE Contract) provided by the Purchasing and Sales Group, ACT Operations Branch, Commonwealth Department of Administrative Services.

APPENDIX D

JOINT COMMITTEE OF PUBLIC ACCOUNTS

SIXTEENTH COMMITTEE

Mr R E Tickner, MP (Chairman)

Senator J O W Watson (Vice Chairman)

Senator B K Bishop	Mr K J Aldred, MP
Senator P J Giles	Mr E J Fitzgibbon, MP
Senator J McKiernan	Mr J V Langmore, MP
Senator R F McMullan	Mr S P Martin, MP
	Mr G B Nehl, MP
	Mr G B Prosser, MP
	Mr P M Ruddock, MP[1]
	Mr G G D Scholes, MP
	Mr L J Scott, MP
	Dr R L Woods, MP[2]

Sectional Committee A

Mr R E Tickner, MP (Chairman)

Senator B K Bishop	Mr E J Fitzgibbon, MP
Senator J O W Watson	Mr G B Nehl, MP
Senator R F McMullan	Mr P M Ruddock, MP[1]

1. Discharged 1 June 1989
2. Appointed 1 June 1989

Project Management

APPENDIX E

E.1 During the Inquiry a significant amount of evidence was received about the level of effort that the Department of Defence places on effective project management for the SSRP.

E.2 At the first public hearing for the Inquiry, which was held on 8 May 1989, a Defence witness described the proprietary life cycle development approach, known as SPECTRUM, and advised it was used by the Department in managing the SSRP. SPECTRUM was described as a systematic progression of systems analysis and development processes, consisting of three phases: system definition, system design and system implementation.

E.3 To identify the range of project management activities in use, the Department of Defence was asked to provide additional information on the reporting structure within Supply Systems Redevelopment Branch and the reporting structure between the Branch and other areas in the Department. The Department was also asked to provide details about the application of project management techniques, critical path management and fast tracking methods applied to the development of subprojects. An overview of the information provided is presented below.

SSRP Project Management Techniques

E.4 The Department of Defence provided the following list of eight specific elements of Supply Systems Redevelopment Project project management techniques:

i. guidance for project planning through SPECTRUM methodology;

ii. development of Work Breakdown Structures for comprehensive planning of major activities (an example of a high level breakdown is available in the Prime Systems Integrator RFT 59/10866L-1 provided to the Committee on 22 November 1989);

iii. using project delivery objectives identified through SSR specific Work Breakdown Structures or direct application of SPECTRUM methodology, the detailed work plans are developed on a six monthly basis and with broad schedules to the end of the subproject;

iv. within the detailed work plans and at task level, techniques such as PERT are used for day to day management of task/sub-task workload and resource monitoring;

v. through weekly meetings with managers of each subproject activity, project directors assure resolution of issues under their control. Likewise, some project managers have scheduled weekly meetings with their project team members in addition to the day to day contact;

vi. major exception reporting and resolution of Branch-wide issues as well as information exchange occur through fortnightly Branch Project Managers' meetings and fortnightly Consultative Forum meetings;

vii. task level monthly progress reports are prepared for each sub-project/activity for consultative forum consideration; and

viii. Project Steering Committee meetings are convened by ACLOG [Assistant Chief of the Defence Force - Logistics] on GMSSR [General Manager Supply Systems Redevelopment] advice several times a year to discharge its responsibilities.[1]

Critical Path Management

E.5 The Department of Defence identified four elements of critical path management techniques applied to SSRP. They are:

i. identification of critical path[s] for the achievement of overall SSR [Supply Systems Redevelopment] objectives within the direction and priorities set for the project by [the] 1987/88 Review;

This element of the management approach is achieved through combined planning exercises involving the Branch executive and all project managers resulting in a consolidated schedule of activities and resource allocations within budget;

1. Evidence, pp. S831-2.

ii. ongoing resource management which includes engagement and deployment of personnel and funds management as well as assuring that critical path activities are properly resourced, if necessary, at the expense of delays in non-critical activities;

iii. other activities contributing to critical path activities are adjusted, where necessary, to meet the quality criteria of the latter; and

iv. general ongoing review of scope and quality criteria of all activities to ensure best use of available resources.[2]

Fast Tracking Methods

E.6 Two levels of fast tracking methods were identified: the strategic level and the detailed level.

E.7 The Department provided the following examples of the application of fast tracking methods applied at the strategic level:

1. pilot and prototype activities are evident in the Depot/Base redevelopment sub-project, which the Department claims has advanced the system design of technical applications for warehouses by some 18 months;

2. common application development to achieve efficiencies and early delivery of results. An example given was the Depot/Base redevelopment procurement application being delivered via the procurement redevelopment sub-project some 12 months prior to other components of the redeveloped systems;

3. the use of the High Level Integrated Design documentation to identify common application segments for seemingly different operations of Tri-Service Depots and Bases; and

4. the decision to use a commercial software package for the Supply/Inventory application will be more timely than developing the whole application in-house, however, savings

2. Evidence, p. S832.

can only be achieved if a minimum level of customisation to the package is attempted.[3]

E.8 When using the SPECTRUM development methodology at the detailed level, the Department has exercised:

> ...the freedom for interpretation of SPECTRUM performance criteria during system definition to ensure that sufficient quality is met to achieve primary aims within the strategic direction, which include the commercial application package strategy.[4]

E.9 Examples include placing less emphasis on data flow diagrams in documenting the logical user requirement and documentation of user input and output screens and reports not considered necessary during system definition and alternatives analysis.

E.10 Further aspects of the detailed level included:

- using an 80/20 rule in sampling for analytical work, such as the examination of only 20% of sites rather than the total, in identifying potential benefits for Depot/Base redevelopment;
- adding a 30% contingency figure where large scale effort was necessary for identifying the planning and budgetary information for the computing and communications network; and
- using previous reports as a base for updating, rather than undertaking a complete rework, referencing industry analysis reports such as IDC and DATAPRO, and examination of single Service developed systems for their applicability when forming the redeveloped systems.[5]

3. Evidence, pp. S832-3.
4. Evidence, p. S833.
5. Evidence, pp. 833-4.

RESPONSES TO INDIVIDUAL ISSUES RAISED BY THE SENATE

6. Summary responses are provided in this section of the submission. Further information is generally provided in the project overview section.

a. The length of time the Supply Systems Redevelopment Project has been underway.

The Government approved commencement of preliminary definition studies for SSRP in the context of the 1983/84 Budget (following DFDC endorsement of the project in April 1983). A project office to manage the project was formally established in August 1984.

b. The resources committed to the project to date in terms of:

(1) manpower costs, including salary and related allowances payable to both civilian and Australian Defence Force personnel

(2) consultancy services

(3) computing support

(4) any other operating expenses

Resource usage from project commencement to the end of 1987/88 has been:

* project office manpower costs (both civilian and Service manpower)	$21.0M
* consultancy services (including on-site contractors)	$ .7M
* computing support	$10.3M
* other operating expenses	$ 1.5M
	$33.5M

Additionally, during the same period, manpower costs of the Services staff which are co-located with the project to represent the interests of users, have been $8.0M.

c. The objectives of the Supply Systems Redevelopment Project as stated when the proposal commenced, and the results achieved by the program to date.

The aim and objectives of SSRP, as stated at the time of the commencement of the proposal, can be summarised as:

The aim of SSRP is to develop a network of compatible and interoperable computer systems, with improved functionality, introduced on new equipment, which will meet the supply objectives of the Services into the 21st century. The objectives of SSRP are:

(1) **Capability Update.** Capability is to be improved through the redevelopment of supply systems to overcome known deficiencies and implement new requirements, including management information and decision support systems. Interim enhancements of current executive systems are also to be undertaken.

(2) **Compatibility and Interoperability.** At present there is little intra and inter-Service compatibility between the Services' separate supply and other logistic systems. Within acquisition guidelines and contracts being developed by Project DESINE, SSRP aims to optimise these characteristics, both to facilitate the Services operating together and to reduce development and maintenance costs.

(3) **Re-equipment.** Re-equipment of the current UNISYS/Concurrent network is to commence in the early 1990s under Project DESINE. SSRP is to be a vehicle for the introduction of DESINE.

(4) **Economy.** Optimal use of scarce specialist manpower resources dictates that maximum commonality be incorporated.

(5) **Utility.** The Services also require that redeveloped supply systems be flexible, serviceable and expandable.

The recent review of the project by Arthur Andersen and Co endorsed the general concept of the project and the key objectives that had earlier been set.

Results Achieved to Date

The results achieved to date for each of the SSRP projects are:

* There has been considerable progress towards defining a common core system for the bulk holding stores of the three Services, and Navy and RAAF base stores. Substantial progress has also been made in defining the technical infrastructure requirements (eg hardware requirements, communications network requirements, computing facilities). Additionally, considerable progress has been achieved in defining a new system to provide much needed automated support for procurement and financial management activities at the Logistics/Support Commands of the Services.

* Because existing supply systems need to be maintained for some time, they are being enhanced where this is feasible and able to be achieved at reasonable cost. There are seven enhancements to these existing systems, for which design has been completed, which have the potential to provide savings in excess of $97M over the next ten years through improved manpower productivity and reduced inventory costs. The vast bulk of these savings are expected from three of the enhancements (on-line enquiry, on-line update and RAAF disposals) which are already being implemented.

d. The Supply System Redevelopment Project's original and 1988 cost estimates

The original BRWG estimates of the costs of redevelopment, in December 1982 prices were:

Capital costs	$ 96.3M
Manpower (including Service User Groups)	$ 90.4M
	$186.7M

Based on advice from Defence Costing Section, Resources Policy Branch, these costs translate to $279.6M in April 1988 prices. These original estimates contained no contingency allowance. Nor did they include recurring costs over the period of redevelopment.

By comparison, the current estimates of the costs of redevelopment (excluding recurring costs of $85.7M) in April 1988 prices are:

Capital costs	$221.7M
Manpower costs (including Service User Groups)	$ 81.7M
	$299.7M

These costs include a contingency allowance of $42.6M.

e. The planning and consultation that occurred at the commencement of the project including:

* definition of the goals of the Supply Systems Redevelopment Project

* expected timetable for implementation of the Supply Systems Redevelopment Project

* adequacy of input by the three Services on the definition of user requirements

The SSRP development plan and associated costs were determined over a nine month period in 1982 by the SSRP Business Review Working Group (BRWG) which was chaired by the Chief of Supply and included the Directors General of Supply from the Services, and representatives

from the then Computer Services Division, Defence Audit and Technical Services. The BRWG findings were published in a comprehensive report and were subsequently endorsed by the then Computing Services Policy Committee (CSPC) and the Defence Force Development Committee (DFDC).

* The goals of the project were defined in the BRWG report and endorsed by CSPC and DFDC. These goals were subsequently further elaborated upon in a document entitled "SSRP - The Scope of Redevelopment" which was endorsed by the Defence Supply EDP Steering Committee which included as members the Chief of Supply and the Directors General of Supply from the Services.

* The expected timetable for implementation of the project developed by the BRWG and endorsed by DFDC in April 1983:

* Depot and Base project (including Navy ships): system definition, development and implementation: Jan 83 to Jul 92

  Executive project: systems definition, development and implementation: Jan 83 to Jul 92

  Policy and Resources: Phase 1 system definition development and implementation: Jan 83 to Jan 88

  Policy and Resources: Phase 2 Jul 87 to Dec 92

* Adequacy of input by the three Services. As previously mentioned, the Services had high level representation on the BRWG, in which the broad statement of user requirements was developed following submissions from each of the Services. Subsequently, the definition of user requirements has been developed in close consultation with the Services' User Groups, ie. representatives of the Services' Director General of Supply organisations who are co-located with project staff to ensure adequate user input to the redevelopment. Additionally, some 25% of project staff are Service personnel.

  User requirements are agreed formally by the Services' Directors General of Supply as they are finalised.

f. Cost benefits of the Supply Systems Redevelopment Project.

Cost-benefit analysis. Arthur Andersen and Co have estimated that quantifiable benefits totalling $462M (April 1988 prices) should accrue through redevelopment in the next ten years by enabling:

(1) reductions in the number of supply personnel (civilian and military) needed for the supply function ($208M);

(2) reductions in the costs of procurement ($52M);

(3) reductions in the related costs of holding inventory ($127M);

(4) reductions in the level of obsolete stock ($75M).

Total outlays, which include the redevelopment costs and recurring costs, are estimated at $389M (April 1988 prices). These total outlays are expected to be recouped by 1995. The ongoing net benefit after redevelopment activity has ceased has been conservatively estimated by Arthur Andersen and Co to be $45M per annum (April 1988 prices).

g. **What attempts have been made by the Department of Defence and the Australian Defence Force to ensure any major computer purchases made since 1986 conform to the standardisation and decentralisation rationale of the Supply Systems Redevelopment Project and the related Defence computer acquisition programme, Project DESINE.**

The purpose of Project DESINE, Defence ADP Systems Integrated Network Environment, is to support a strategy for the decentralisation and standardisation of computing systems within Defence. In February 1989, the Minister of Defence announced that the DESINE contract to supply administrative computing requirements over the next five years had been awarded to IBM Australia. The DESINE contract will be the vehicle for acquiring the computing equipment requirements of SSRP. The DESINE concept was endorsed by DFDC in 1982 and reaffirmed as departmental policy by the CSPC in 1987. Further, in 1987, to ensure that computer purchases conform to the Department's policy to pursue the implementation of DESINE, CSPC affirmed the need for all proposed acquisitions to be monitored by ISP Division in the period before the DESINE contract was established. The purpose has been to limit any acquisition of computers or services to those which can be proved to be essential to the Department's or the Services' business, and to ensure that any essential purchases conform to the interoperability and compatibility standards that are applicable.

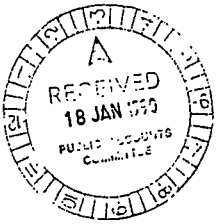
DEPARTMENT OF DEFENCE

RUSSELL OFFICES
CANBERRA, A.C.T. 2600

IN REPLY QUOTE

IG 0040/90
IG 88/43542

18 January 1990



Mr T. Rowe
Secretary
Joint Parliamentary Committee
of Public Accounts
Parliament House
Canberra ACT 2600

COMPUTER REDEVELOPMENT PROGRAM - SSRP

I refer to your letter dated 21 December 1989 which sought additional information on this matter. The information required was firstly, advice of action taken by the Department to counter the argument that Defence has the potential to be locked into IBM through SAA. Secondly, information on the activities of the SSR Branch and support services offered by other areas, and thirdly, a sanitized version of the Arthur Young report.

Tab A is a paper that deals with the first subject. You will note at paragraph 4 of the introduction the paper makes reference to material that has already been provided to the Committee. The first was provided under cover of my memorandum IG 0903/89 dated 29 August 1989: the second was provided under cover of my memorandum IG 1317/89 dated 19 December 1989.

Tab B provides answers to questions that were at Attachment A of your letter. The response to question 3 is not yet complete: details in respect of AUTOQ and the Current Executive Systems Enhancements activities will be provided shortly.

The sanitized version of the Arthur Young report is not yet available and will be provided as soon as possible.

F.R. HARVEY
Inspector-General

THE POTENTIAL TO BE "LOCKED INTO" IBM THROUGH SAA

INTRODUCTION

1. The JPCPA has requested that Defence counter the argument that the potential exists to be "locked into" IBM through Systems Application Architecture (SAA).

2. In response, this paper will briefly outline why SAA and IBM were chosen for Desine and discuss some of the factors which led to that decision. This background will serve as a base to analyse the pros and cons inherent in a decision of this nature, in particular the risk of eliminating the freedom of choice in future acquisitions.

3. Finally, the paper will explain the reasoning and argument countering the contention that, by selecting SAA for Desine, Defence will be "locked into" IBM.

4. Previous requests by the JPCPA to Defence for information on SAA have been provided in the papers "SAA and DESINE" of 22 August 1989 and "SAA Chronology" of 18 December 1989. The DESINE Request For Tender and Final Selection Report have also been provided. These documents may need to be referenced in considering the broad subject.

BACKGROUND

SAA and IBM

5. SAA is an IBM selected collection of software interfaces, conventions and protocols. This selection is published by IBM. SAA is a framework for developing consistent applications across the three major IBM computing environments: System/370, AS/400 and PS/2; i.e. across the mainframe, mid-frame and PC/workstation hardware platforms.

6. This consistency is provided in the following areas:

* Programming interface - the language and services that application developers use in building their software.

* User access - the design and use of screen panels and user interaction techniques.

* Communications support - the connectivity of systems and programs.

* Applications - the software built and supplied by IBM and other vendors.

Requirements for Application Development

7. In order to build applications a number of software products are required for the chosen hardware platform. Hardware platforms are usually selected because of the computing power they offer - the "horsepower". For a general purpose application these software products would cover the following:

* system software providing the operating system, transaction processor, data base management and security/resource controls.

* applications development software providing data dictionary facilities, programming language and development aids.

* other software such as query facilities and office automation and, depending on interconnection requirements, possibly special communication software to provide additional networking over basic facilities provided.

8. When these software products differ across platforms it is difficult to develop consistent applications. Where an environment consists of different platforms it is necessary either to set in place conventions to ensure consistency or to restrict the use of certain platforms to specific projects.

9. SAA provides this consistency across the major IBM platforms.

Evaluation of SAA During the DESINE Tender Evaluation

10. DESINE required software for applications development across hardware platforms providing a wide range of computing capacities. These platforms had to be supported by a single network architecture to allow the communication of information between the various systems that would be developed.

11. The IBM tender used SAA as a framework for its overall solution.

12. IBM has identified a number of products as providing the foundation for SAA. These products include the operating systems MVS and VM; the data base management systems DB2 and SQL/DS; the application development facilities COBOL, CSP and ISPF; the query facility QMF; and DISOSS for office automation.

13. All these products were included in the evaluation configurations and fully evaluated against competing solutions from Unisys and Digital and also against third party products that had been part tendered. Some substitutions and additions were made from third party products to the IBM solution (which also included third party products).

14. Weaknesses identified during the tender evaluation in the consistency of the IBM solution, which only incorporated products available at the close of tenders, were being addressed by SAA. Clearly SAA is of key importance to IBM in its ability to attract new business and retain current users.

15. SAA was announced in March 1987 and was established as the strategic direction of IBM for their major product offerings.

The DESINE Solution

16. The DESINE tender evaluation identified a solution based on IBM's tender (and hence SAA) as the most cost effective overall solution with the highest ANZ content. This solution was also the solution of least cost in terms of the approved evaluation methodology.

17. The selection was made by a forty member team comprising Defence computing professionals, Defence users (both military and civilian) and independent computing consultants. The selection was

reviewed by industry consultants and the Department of Administrative Services.

18. The evaluation team perceived a degree of weakness in the consistency between some of the application development environments in the solution, but noted the attempts by IBM to standardise their product offerings through SAA. However, no concerns were raised that Defence would be restricted to only IBM products in the future with the advent of SAA. Indeed the consensus was that the solution gave the widest scope for including third party products.

Non-IBM Products in DESINE

19. There are many subcontractors associated with DESINE providing hardware and software. Clearly, the solution has not restricted the opportunity to combine non-IBM products in systems procured under the DESINE contract.

20. Also many other products exist from suppliers other than IBM that have the potential to be substituted or added to the contract. Some of these were identified during the tender evaluation but were not selected then because their inclusion was not the most cost effective at that time.

21. IBM's commitment to SAA has resulted in an increased number of potential third party suppliers of products for an IBM environment. It also means that the work of existing suppliers in the IBM market place is made easier due to the increased consistency provided to the IBM environments by SAA.

SAA and International Standards

22. Many of the interfaces and protocols of SAA are based on international standards (that is they represent a selection of alternatives and options that frequently exist within an international standard). Those interfaces for which there are no international standards are based on IBM defined (and published) conventions.

23. Examples of international standards included within SAA are:

* The programming languages C, FORTRAN and COBOL;

* The SQL database interface;

* The communication standards X.25 and IEE 802.2 and 802.5 (Token Ring).

24. Defence will use an international standard in preference to a proprietary standard provided that the international standard meets the broad requirements of the organisation including interoperability with our allies. It should be noted that some international standards lag seriously behind information technology advances. Defence works actively with Standards Australia to ensure that any specific Defence requirements are addressed by emerging international standards.

Risks

25. The slow progress of international standards development, particularly the availability of proven products that implement those standards, may cause an increased reliance on suppliers.

26. The adoption of suppliers' products that are not part of the suppliers' strategic direction can result in the user having to support that product in isolation and being without a growth path.

27. The need for suppliers to maintain a competitive differential in product capabilities can cause diversification of computer systems requiring additional support staff with reduced consistency. The utilisation of international standards counteracts this although standards (and the advancement of new technology) allows scope for implementation "choices" and supplier defined enhancements ("value add") which in turn induce reliance on that supplier and hence "lockin".

28. All suppliers want to retain their clients and can do this in ways ranging from a level of support that only they supply so that their client comes to rely on them even though there may be a higher premium; to producing products delivering functionality required by the client but only available through them (they may hold the patents for example).

Scope for "lockin" to IBM through SAA Post 1993

29. The potential for "lockin" could originate in a number of areas.

30. Hardware. There is a large range of compatible hardware products that can be sourced from and maintained by organisations other than IBM.

31. System Software. With few exceptions, identical system software will be required for acquisitions that have to run the same developed application. An example would be a contingency site or a new depot that would require a system to run an existing depot application.

32. Application Development Software. An application will require the same application development software for the life of that application. A new application to be developed on an existing system could use different application development software where alternative products were supported by the system software. This is the case for IBM systems and Defence could choose new application development facilities if the existing tools were considered inadequate in either functionality or performance. Training would be required in these systems but the use of standard programming languages and data base interface conventions such as SQL could reduce the scale of any retraining. Note that CASE tools may reduce the investment required in application programmers.

33. Interconnection. The use of OSI and SNA communication facilities allow a wide range of other systems to be interconnected with IBM systems. Therefore, for new applications, a different supplier(s) could be used with the only restriction being a need to support either OSI or SNA. Defence is committed to using OSI as

the basis of the DESINE network architecture and SNA is only being utilised where OSI functionality does not currently exist or is not adequate for the projects requirements. (An example of a current shortfall in OSI is network management capability.) It is conceivable that for a new project that in the absence of OSI a different proprietary network architecture to SNA could be used.

Functional Decentralisation

34. Within functional areas there is a particular need for commonality of equipment, particularly software, used in the development of applications due to the smaller number of dedicated staff than would be available in a centralised environment.

35. For example: assume an organisation of 100 dedicated staff with 5 application development environments each requiring 20 dedicated staff. In a centralised environment each new application could be implemented in any one of the 5 development environments (provided no interconnection issues exist). If the organisation were to decentralise based on four functional areas and assuming an equal split of dedicated staff and no degradation of service or increase in staff numbers was to take place, then a functional area could only be expected to support the one application development environment. Aspects such as an increase in the number of licences required for software, the need for dedicated staff with advances in technology, or the utilisation of a third part organisation to provide the support have not been considered in this example.

Alternatives to SAA for DESINE

36. Defence did not select SAA as the solution although SAA is a convenient way of describing those products selected from IBM. With the exclusion of some IBM products (such as IMS and NetView) and the inclusion of third party products (such as IDMS/R and NetMaster) DESINE represents a variation to SAA.

37. DESINE was established as the result of the tender evaluation. In common with the information technology industry it is continually evolving. In terms of major products on the DESINE contract, those sourced from IBM are part of that organisation's SAA strategy. The acquisition of off-the-shelf software application packages will potentially cause a need to expand the DESINE environment depending on interconnectivity and tailoring required of the package.

38. To date the Defence UNIX working party has identified the potential for a satisfactory level of interconnectivity to be established between UNIX and systems on the DESINE contract based on technology advances since the close of tenders for DESINE. The addition of UNIX products to the contract depends on considerations such as whether Defence requires another applications development environment, along with other management issues.

SUMMARY

39. Having undertaken a major tender evaluation process and entered into a contract it is necessary for Defence to take maximum advantage of tools available to increase productivity and efficiency. These tools will include replacing the tendered, evaluated and selected IBM office automation products DISOSS with the follow on product OFFICEVISION. These tools may include the

addition of UNIX to provide an alternative applications development environment.

40. In the worst case - if Defence at the end of the contract finds itself with nothing but equipment sourced from IBM then, through using SAA all applications will be written to one comprehensive, integrated language and services definition. Such applications would be easier to transfer to another operating environment than a mixture of applications developed in different environments.

41. If rationalisation and standardisation were not to take place then Defence will continue to pay more for its computing systems which will in total deliver a poorer service.

42. DESINE was established through open tender and the environment is based initially on SAA. SAA makes use of international standards and is a published set of conventions and protocols. There is wide industry support for its concepts.

43. There exists a rich market in products and services for the IBM environment which represents a very large proportion of the installed computing base worldwide. Defence will be able to continue to get access to advances in technology through competitive acquisition procedures.

Information Systems Policy Division

16 January 1990

QUESTION 1

Please provide a diagram of the structure of the SSRP Branch showing:

(a) the hierarchy of positions in the Branch,

(b) the names of contractors/consultants currently engaged, the nature of their duties and their line of reporting responsibilities

RESPONSE

1(a) Branch Hierarchy

The hierarchy of positions is provided in Charts 1-7 at Annex A.

Chart 1 represents the Branch Executive. General Manager Supply Systems Redevelopment (GMSSR) reports to the Assistant Chief of the Defence Force - Logistics (ACLOG) and the Project Steering Committee. The Directors are accountable to GMSSR and the SSR Consultative Forum. The SSR Project management structure was provided with the Department's responses of 4 December 1989.

Subsequent charts at Annex A show the establishment positions and contractor/consultant engagements within each directorate.

1(b) Contractors/Consultants Details

The required details on contractors/consultants currently engaged are provided at Annex B in the same order as the charts 2-7 at Annex A and within each chart, moving from left to right.

QUESTION 2

Please provide:

(a) a list of all current activities/subprojects currently being undertaken by the SSRP Branch.

(b) the names and designations of the responsible Departmental Officers in SSRP down to CSO3 and equivalents.

RESPONSE

2(a) Current activities/subprojects.

The titles of all current activities/subprojects are:

	SUBPROJECT	ACTIVITY
a.	Major Contracts	Commercial Application Software Package RFT
b.	Major Contracts	Prime Systems Integrator RFT
c.	Depot and Base Systems Redevelopment	System Definition
d.	Depot and Base Systems Redevelopment	Warehousing LAN - Working Prototype
e.	Depot and Base Systems Redevelopment	Warehousing LAN - 21 Supply Battalion Pilot
f.	Procurement Redevelopment	System Definition
g.	Procurement Redevelopment	AUTOPROC Pilot
h.	Facilities and Central Computing	Acquisition of Computer Facilities
i.	Enhancements to Current Executive Systems	
j.	Army Unit System (AUTOQ)	
k.	Ships Logistics Information Management System (SLIMS)	

Notes:

1. Enhancements to Current Executive Systems are managed by Logistics Computer Centre Branch while being responsive to SSR Project Management Structure.

The activities at sub paragraphs j and k above are not directly managed by SSR Branch. Management responsibility for those activities rests with Army and Navy Offices respectively. However, those subprojects are funded through SSRP, and Army and Navy Offices are responsive to SSR Branch standards and guidance for their respective sub projects. The management of these sub-projects are also responsive to SSR Project Management Structure.

3. Ongoing SSRP support activities undertaken by the Director Project Coordination are not separately identified for the responses to questions 2(a) and 3. These activities include standards, quality assurance/control and finance/admin support for all sub-projects as well as liaison with sub-projects at i, j and k above.

2(b) Responsible SSR Branch Officers

The names and designations of the Departmental Officers in SSRP down to CS03 and equivalents are given at Annex C.

Please note that the project responsibility and accountability is that of the Branch Executive given in Annex A Chart 1.

QUESTION 3

For all activities, give:

(a) a brief description

(b) their current status

(c) expected completion dates as at Monday 18 December 1989

(d) the original estimated completion date when the activity/subproject was initiated

(e) where significant differences have occurred in the completion of an activity/subproject, provide justifications.

RESPONSE

Responses to this question are provided at Annex D for each of the Subproject/Activities listed in response to question 2(a). The original completion dates given are those resulting from 1987/88 Review of SSRP which has reprioritised all project activities.

Please note that the details for Enhancements to Current Executive Systems and AUTOQ will be provided on 19 January 1990.

QUESTION 4

List all activities currently being undertaken outside of the Branch which have an influence on the development of SSRP. Examples are provision of Equipment, pilot applications, AUTOQ, SLIMS, establishment of computer sites, technical advice and maintenance of the DESINE Contract by ISPD.

RESPONSE

4(a) List of external activities which have an influence on SSR

The following list is organised under three broad areas:

i. the Logistics Computer Centre;

ii. other services providers; and

iii. other business elements which have a requirement to interface with the redeveloped systems.

A fourth area, which is the ongoing participation in SSR activities of various elements within the Services, is not separately listed here because that participation is with respect to every Branch activity listed in response to question 2(a). Further, the Services' participation is channelled through Services' User Groups for SSR whose activities can be considered as an integral part of SSR Branch activities.

Logistics Computer Centre

* Installation and operation of the main SSR computer (IBM 3090)

* Support for the system software environment for the main SSR computer

* Communication interfaces between the IBM and UNISYS environments

* Applications interfaces between CONCURRENT systems and the Warehousing LAN for 21 Supply Battalion Operational Pilot

* Current Executive Systems interfaces with the AUTOPROC pilot

* Ongoing management of enhancements to Current Executive Systems

Other Services Providers

* ISPD provides services with respect to procurements under DESINE contract

* ISPD provides policy guidance on major information systems issues and liaises with other external agencies on policy matters (eg. IESC, GOSIP)

Project Development and Communications (PDC) Division provides services in relation to Defence data communications infrastructure

* Defence Security Branch provides both policy and technical advice on security matters and assists with investigations on security requirements

* Defence Audit Branch is involved with ongoing quality control of SSR activities and outputs

* DAS Government ADP Procurement section is conducting the source selection of major contracts

Interfaces with Other Business Elements

High Level Integrated Design includes an identification of other business elements requiring interfaces with the redeveloped systems. Several major elements are included here for ease of reference.

* Defence Financial Management requires interfaces to Defence Financial Management Information System (DEFMIS)

* Defence Logistics management requires interfaces with future technical/engineering and transport systems (examples are CAMMII development, Navy SLIMS and definition activities for future transport systems)

* Interfaces between Army Supply Depots/Companies and the AUTOQ system

QUESTION 5

(a) Identify the project management techniques used by the SSRP Branch.

(b) Identify the methods of ensuring that critical path activities are completed in a timely manner to prevent delays to other dependent activities.

(c) What fast tracking methods are applied by SSRP? Provide examples in the Depot/Base work plans.

RESPONSE

a. SSRP Project Management Techniques

SSRP Project Management structure was provided with the Department's responses dated 4 December 1989. The approach to project direction, reporting and endorsement is evident from that structure.

Specific elements of SSR Project Management techniques are as follows:

i. guidance for project planning through SPECTRUM methodology;

ii. development of Work Breakdown Structures for comprehensive planning of major activities (an example of a high level breakdown is available in the Prime Systems Integrator RFT 59/10866L-1 provided to the PAC Secretariat on 22 November 1989).

Where standard Spectrum work breakdown structures are considered inadequate or unsuitable, SSR specific work breakdown structures are developed;

iii. using project delivery objectives identified through SSR specific Work Breakdown Structures or direct application of SPECTRUM methodology, the detailed workplans are developed on a six monthly basis and broad schedules to the end of the subproject;

iv. within the detailed workplans and at task level, techniques such as PERT are used for day to day management of task/sub-task workload and resource monitoring;

v. through weekly meetings with managers of each subproject activity, project directors assure resolution of issues under their control. Likewise, some project managers have scheduled weekly meetings with their project team members in addition to the day to day contact;

vi. major exception reporting and resolution of Branch-wide issues as well as information exchange occur through fortnightly Branch Project Managers' meetings and fortnightly Consultative Forum meetings;

i. task level monthly progress reports are prepared for each subproject/activity for consultative forum consideration; and

viii. Project Steering Committee meetings are convened by ACLOG on GMSSR advice several times a year to discharge its responsibilities.

b. Critical Path Management

Four elements of critical path management approach applied by SSRP are:

i. identification of critical path for the achievement of overall SSR objectives within the direction and priorities set for the project by 1987/88 Review;

This element of the management approach is achieved through combined planning exercises involving the Branch Executive and all project managers resulting in a consolidated schedule of activities and resource allocations within budget;

ii. ongoing resource management which includes engagement and deployment of personnel and funds management as well as assuring that critical path activities are properly resourced, if necessary, at the expense of delays in non-critical activities;

iii. other activities contributing to critical path activities are adjusted, where necessary, to meet the quality criteria of the latter; and

iv. general ongoing review of scope and quality criteria of all activities to ensure best use of available resources.

The recommendations for decision reached through this management approach are subject to review and endorsement via SSR Consultative Forum and Project Steering Committee.

c. Fast Tracking Methods and Examples

Fast tracking methods are applied by SSRP at both the strategic level and detailed level.

Strategic level methods and examples are:

i. commercial application package strategy which eliminates the need to custom build the systems, thereby providing potential major gains in elapsed time during system design/programming phase on the provision that a minimum level of customisation of the package is attempted;

ii. pilot and prototype activities undertaken in parallel to system definition as a contribution to future system design as well as the system definition.

The example from Depot/Base redevelopment is the Warehousing LAN working prototype and pilot activities which advanced the system design of technological applications for warehouses by 18 months;

iii. common application development to achieve efficiencies and early delivery of results.

An example is the Depot and Base redevelopment procurement application being delivered via procurement redevelopment subproject at least 12 months prior to the delivery of remaining components of the redeveloped system; and

iv. another example is the use of HLID common application segments to construct systems for seemingly vastly different operations of tri-Service Depots and Bases; without the HLID, these different operational requirements would have manifested as unique to Service requirements resulting in considerable delay in delivery of redeveloped systems.

Detailed level methods and examples are:

i. the freedom for interpretation of Spectrum performance criteria during system definition to ensure sufficient quality is met to achieve primary aims within the strategic direction, which include commercial application package strategy;

Examples from Depot/Base redevelopment system definition activity are:

- in documenting the logical user requirement, less emphasis was placed on data flow diagrams

- Spectrum performance criteria for documenting user input and output screens/reports not considered necessary during system definition/ alternatives analysis

ii. application of 80/20 rule in analytical work to reach conclusions in a cost effective and timely manner;

Examples from Depot/Base redevelopment system definition activity are:

- Benefits analysis being limited to 20 sites out of a total in excess of 80 on the basis that major efficiencies can be identified with respect to those 20 sites at the required quality of analysis

- Planning and derivation of budgetary information for the computing and communications network where certain details requiring large scale effort were omitted and the resulting uncertainty addressed by introducing a 30% contingency

Other fast tracking methods include references to previous work. Examples are:

i. examination of existing single Service developed systems for their applicability when forming the redeveloped systems;

ii. references to industry analysis reports such as IDC and DATAPRO; and

iii. review and update of work done in the Branch prior to 1987/88 Review rather than undertake a complete reworking.

QUESTION 6

(a) detail the staffing structure proposed for evaluating the PSI RFT and the source of the manpower resources

(b) provide an estimate of the cost of the PSI evaluation process

6(a) Staffing Structure and Sourcing of PSI RFT Evaluation

The proposed staffing structure for evaluating the PSI RFT is shown in the organisation diagram at Annex E. The total team, including the Director who has other responsibilities, numbers 29. Ten are external consultants and the other 19 are resourced principally from SSR Br although several Service user personnel are included in the capability evaluation teams A, B and C.

6(b) Cost of PSI evaluation

Estimated total cost of the PSI evaluation process is $2,021,000. RFT preparation cost to 18 December 1989 was $428,000. The balance is for the evaluation process.

QUESTION 7

(a) What has been the cost of the evaluation of the commercial software package?

(b) Provide details of the original estimated completion date.

7(a) Cost of evaluation

The total expected cost of the evaluation of the commercial software package is $1,591,000. The preparation and processing of invitation to register cost $600,000. The preparation of the RFT cost $86,000 and the final cost of RFT evaluation is expected to be $905,000.

7(b) Original estimated completed date

Original estimated completion date was June 1989 and the proposed completion date is April 1990. Please refer to answers for Question 3 for further details.

/ESTION 8

(a) How does the SSRP Branch currently source its technical expertise?

(b) At what cost for specific activities or subprojects if contractors/consultants have been engaged?

RESPONSE

8(a) Current Sourcing of Technical Expertise

SSR Branch staff includes a number of technical and subject matter specialists and officers who are being trained on an ongoing basis through direct involvement in project activities. In addition, the Branch obtains assistance from other areas such as Logistics Computer Centre Branch for conduct of its activities.

System definition and prototype/pilot work require technical expertise of experienced system implementors as well as specialists in selected technical environments. Such expertise is not available to the project in required numbers from Departmental staff and the method employed is to engage consultants/contractors on the basis of defined requirements. These requirements are defined through requests for quotations containing a brief covering requirement stated in terms of scope, objectives, terms of reference and specific skills required.

8(b) Contractor/Consultant Costs by Activity

The contractor/consultant costs for each SSR Branch activity are divided into three periods:

i. prior to the 1987/88 review of SSRP;

ii. 1987/88 SSRP Review Period; and

iii. Post 1987/88 Review Period.

Prior to 1987/88 Review of SSRP

ACTIVITY	COST ($m)
Depot/Base System Definition	0.270
Enhancements to Current Executive Systems	0.092
Total	0.362

1987/88 SSRP Review Period

ACTIVITY	COST ($m)
Review Consultant	0.437
Other Contractor Contributions	0.227
Total	0.664

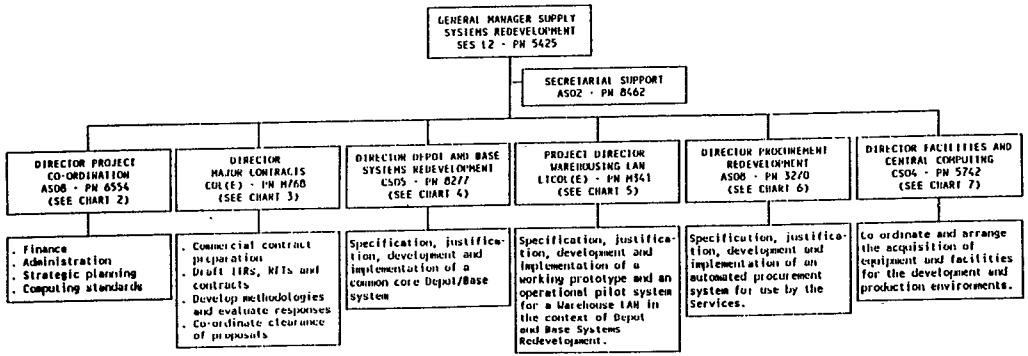
Post 1987/88 Review Period

CURRENT ACTIVITIES (Includes expenditure to date & future obligations)	COST ($m)
Commercial Application Software Package RFT	1.527
Prime Systems Integrator RFT	1.945
Depot/Base Systems Definition	0.303
Warehousing LAN - Working Prototype	0.699
Warehousing LAN - 21 Supply Battalion Pilot	0.733
Procurement Redevelopment System Definition	0.101
Acquisition of Computer Facilities	0.252
Army Unit System (AUTOQ)	0.059
Sub Total	5.619
COMPLETED ACTIVITIES	
- High Level Integrated Design	0.312
- Report Preparation ADP Acquisition Council	0.002
Sub Total	0.314
Total	5.933

SUMMARY

	$m
Pre 1987/88 Review	0.362
1987/88 Review Period	0.664
Post 1987/88 Review	5.933
Total	6.959

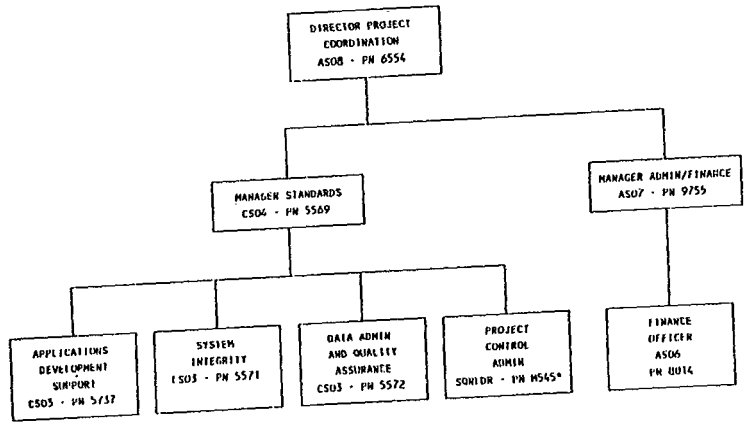
SSR BRANCH
ORGANISATION CHART 1
AS AT 15 JANUARY 1990



SSROIA.ORG

SSR BRANCH
ORGANISATION CHART 2
AS AT 15 JANUARY 1990

* PROPOSAL TO CIVILIANISE TO ASO6



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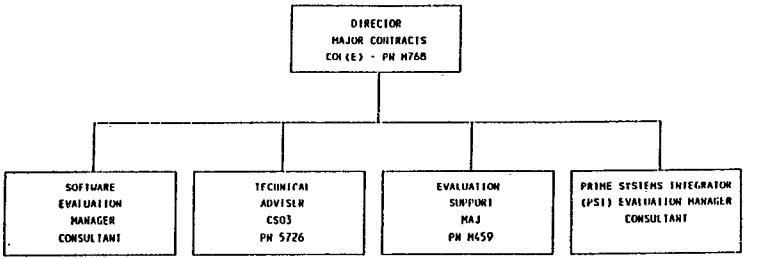
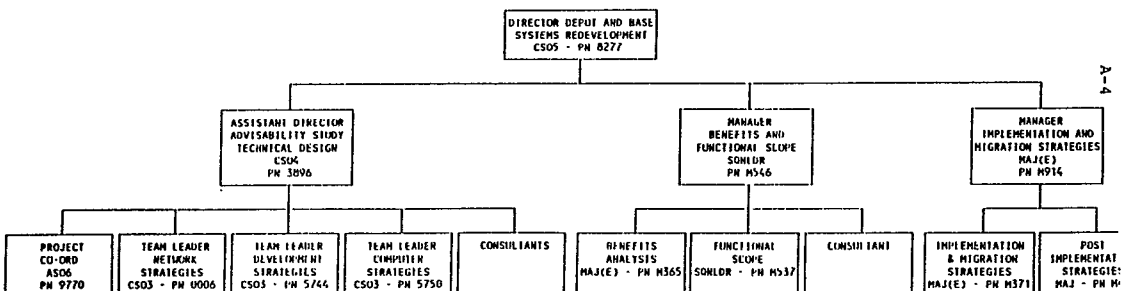
SSR BRANCH
ORGANISATION CHART 3
AS AT 15 JANUARY 1990



SSR BRANCH
ORGANISATION CHART 4
AS AT 15 JANUARY 1990



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SSR BRANCH
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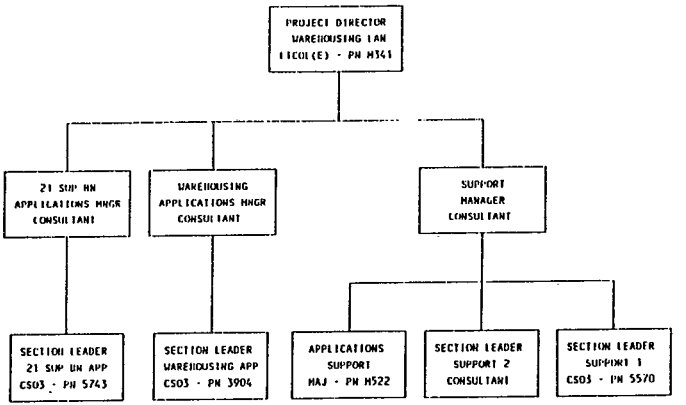
AS AT 15 JANUARY 1990



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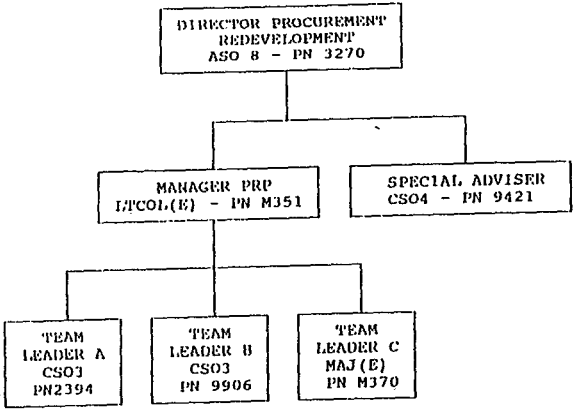
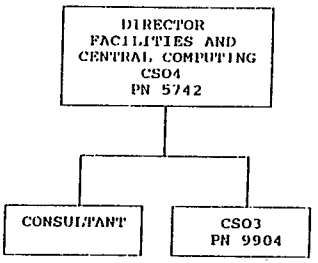
SSR BRANCH
ORGANISATION CHART 6
AS AT 15 JANUARY 1990



SSR BRANCH
ORGANISATION CHART 7
AS AT 15 JANUARY 1990



QUESTION 1(b)

MAJOR CONTRACTS

Consultant: Dr Geoff Ford (Manager Software Evaluation)

Reports to: Director Major Contracts

Duties: Evaluation of Tender Responses to the Departments RFT 62/79561M-1 for the Services of a Software Package, concentrating on duties required as Evaluation Team leader.

Consultant: Mr Anthony Rossiter

Reports to: Manager Software Evaluation

Duties: Evaluation of Tender Responses to the Departments RFT 62/79561M-1 for the Services of a Software Package, concentrating on financial and evaluation matters.

Consultant: Ms Marie-Louise McDermott

Reports to: Manager Software Evaluation

Duties: Evaluation of Tender Responses to the Departments RFT 62/79561M-1 for the Services of a Software Package, concentrating on financial matters.

Consultant: Mr Alan Buerckner

Reports to: Manager Software Evaluation

Duties: Evaluation of Tender Responses to the Departments RFT 6279561M-1 for the Services of a Software Package, concentating on capabilities section of the RFT

Consultant: Mr Ian Shearer (Manager Prime System Integrator Evaluation)

Reports to: Director Major Contracts

Duties: Evaluation of Tender Responses to the Departments RFT 59/108666-1 for the Services of a Prime System Integrator, concentrating on duties required as Evaluation Team Leader.

Consultant: Mr Russell Walker

Reports to: Manager Prime System Integrator Evaluation

Duties: Evaluation of Tender Responses to the Departments RFT 59/108666-1 for the Services of a Prime System Integrator, concentrating on the Documentation required for the RFT.

Consultant: Mr Bruce Castleman

Reports to: Manager Prime System Integrator Evaluation

Duties: Evaluation of Tender Responses to the Departments RFT 59/108666-1 for the Services of a Prime System Integrator, concentrating on the financial matters of the RFT.

Consultant: Mr Gavin Thoms

Reports to: Manager Prime System Integrator Evaluation

Duties: Evaluation of tender Responses to the Departments RFT 59/108666-1 for the Services of a Prime System Integrator, concentrating on the capabilities section of the RFT.

DEPOT AND BASE SYSTEMS REDEVELOPMENT

Consultant: Team of Consultants from Housley Communications

Reports to: Assistant Director, Advisability Study Technical Design

Duties: Preparation of reports on communications networking options/elements relevant to Defence.

Consultant: Team of Consultants from Australian Technology Resources

Reports to: Assistant Director, Advisability Study Technical Design

Duties: Preparation of reports on computer hardware and software options/elements relevant to Defence.

Consultant: Douglas Livingstone

Reports to: Assistant Director, Advisability Study, Technical Design

Duties: Development and analysis of feasible solution option for Depot and Base computer and communications network.

Consultant: Mr Owen Duffy

Reports to: Assistant Director, Advisability Study, Technical Design

Duties: Quality control of technical documents and analytical activities.

Consultant: Ms Christine Upton

Reports to: Manager, Benefits and Functional Scope

Duties: Analysis and documentation of efficiency benefits and key user effectiveness benefits in relation to supply objectives.

WAREHOUSING LAN

Consultant: Mr Peter Madden (21 Sup Bn Applications Manager)

Reports to: PDWLAN

Duties: Project Management in relation to the implementation at 21 Sup Bn, in particular interfaces with current systems.

Consultant: Mr Paul Markowski

Reports to: Section Leader 21 Sup Bn Applications

Duties: Analysis and design of interface requirements.

Consultant: Mr Peter Robin

Reports to: Section Leader Sup Bn Applications

Duties: Interface program design, development and testing.

Consultant: Ms Lynette Philipson (Warehousing Applications Manager

Reports to: PDWLAN

Duties: Project management in particular the finalisation of the prototyping exercise and the development of the tri-service warehousing product.

Consultant: Mr Peter Taylor

Reports to: Section Leader Warehousing Applications

Duties: Tri-service program design, development and testing.

Consultant: Roy Brichacek

Reports to: Section leader Warehousing Applications

Duties: Tri-service program design, development and testing.

Consultant: Mr Graham Dudley (Support Manager)

Reports to: PDWLAN

Duties: Project management in particular dealing with data base support, facilities and hardware/software acquisition.

Consultant: Mr Anthony Farr (Section Leader Support 2)

Reports to: Support Manager

Duties: Technical analyst programmer and acquisition support.

Consultant: Mr Patrick Pretorius

Reports to: Section Leader Support 2

Duties: Technical analyst for equipment integration and development environment.

Consultant: Mr Damien Lynch

Reports to: Section Leader Support 1

Duties: Data base administration and program transfer and version control.

Consultant: Mr Ludek Wolf

Reports to: Section Leader Support 1

Duties: Technical analyst programmer, equipment configuration, installation and maintenance support.

FACILITIES AND CENTRAL COMPUTING

Consultant: Mr Geoff Barnes

Reports to: Director, Facilities and Central Computing

Duties: Provide specialist technical advice on industry standards and processes, and technical information on equipment sizing and costing as part of the planning and establishment of facilities and central computing requirements of the SSRP projects.

QUESTION 2(b)

DESIGNATION	TITLE	NAME
SES L2	General Manager, Supply Systems Redevelopment (GMSSR)	Mr T.C.D Smith
ASO8	Director, Project Coordination (DPC)	Mr G.J. Haslem
COL(E)	Director, Major Contracts (DMC)	GPCAPT N.K. Wainwright
CSO5	Director, Depot and Base Systems Redevelopment (DDBSR)	Dr A. Perera
LTCOL(E)	Project Director, Warehousing Local Area Network (PDWLAN)	(V) LTCOL Jordan posted in January 1990
ASO8	Director, Procurement Redevelopment (DPR)	Mr W.E. Richter
CSO4	Director, Facilities and Central Computing (DFACC)	Mr N.S. Collings

Director, Project Coordination

CSO4	Manager Standards	Mr R.L. Stedman
CSO3	Applications Development Support	Mr K.J. Ward
CSO3	System Integrity	Mr N.C. Charyulu
CSO3	Data Admin and Quality Assurance	Mr B.N. Searle
SQNLDR	Project Control Administrator	(V)
ASO7	Manager Admin/Finance	Mr M.V. Gahan (Acting)
ASO6	Finance Officer	Mr M.J. Richards

Director, Major Contracts

CSO3	Technical Adviser	Mr L. Rajaratnam
MAJ	Evaluation Support	MAJ A. Ellson

Director, Depot and Base Systems Redevelopment

CSO4	Assistant Director, Advisability Study Technical Design	Mr R.T. Tait
ASO6	Project Coordination	(V)
CSO3	Team Leader, Network Strategies	Mr G.E. Miles
CSO3	Team Leader, Development Strategies	Mr S. Kayani (Acting)
CSO3	Team Leader, Computer Strategies	(V)
SQNLDR	Manager, Benefits and Functional Scope	SQNLDR E.J. Higgins
MAJ(E)	Benefits Analysis	SUBLT J.E. Watson
SQNLDR	Functional Scope	(V)
MAJ(E)	Manager, Implementation and Migration Strategies	LCDR P. Stephenson
MAJ(E)	Implementation and Migration Strategies	(V)
MAJ	Post Implementation Strategies	(V)

Project Director, Warehousing LAN

CSO3	Section Leader, 21 SupBn Applications	Mrs W. Russell (Acting)
CSO3	Section Leader, WLAN Applications	Mr P. Malicki (Acting)
CSO3	Section Leader Support 1	(V)
MAJ	Applications Support	MAJ J. Hicks

Director, Procurement Redevelopment

LTCOL(E)	Manager, Procurement Redevelopment Project	WGCDR K. England
CSO4	Special Adviser	Mr R.J. Murn
CSO3	Team Leader A	Mr P.M. Conway
ASO6	Procurement Redevelopment Project	Mrs K.A. Watyluk
CSO3	Team Leader B	Mr A. Mifsud
MAJ(E)	Team Leader C	MAJ J.R. Wade
ASO6	Procurement Redevelopment Project	Mr A.L. Long

Director, Facilities and Central Computing

CSO3	Deputy Director Facilities	Mr C. Taylor
MAJ(E)	Facilities and Central Computing	(V)

QUESTION 3

RESPONSE

SUBPROJECT/ACTIVITY: Major Contracts/Commercial Application Software Package RFT

Explanation of the Activity

Following the 1987/88 Review of SSRP a decision was taken to consider the feasibility of using commercial application software packages in the development of the SSRP solution. The strategy adopted to consider this possibility was firstly to select the most appropriate commercial package or packages currently available, and to then undertake a detailed feasibility examination of that package/s over a short period leading to a decision to acquire and use the package/s if the examination showed the proposal to be feasible.

a. Description

The selection of commercial application software package/s for the detailed examination was approached using a two stage tender process:

i. an invitation to register (ITR) with a world-wide canvassing of the software industry leading to a shortlist of acceptable offers; and

ii. a restricted Request for Tender (RFT) for the shortlisted offers from the ITR.

This activity is conducted within DAS Government ADP Procurement guidelines utilising Defence source selection procedures. The selection tasks are overseen by an evaluation steering committee and major recommendations subjected to a Departmental Committee process.

b. Current Status

* ITR issued in May 1988

* ITR phase completed in December 1988

* RFT issued in December 1988 and RFT closed on 30 March 1989.

The evaluation activity is nearing completion. The contender list was narrowed to two offers and reference site visits for these two offers was completed in December 1989.

ext Steps are:

i. completion and endorsement of Source Evaluation Report;

ii. contract negotiations;

iii. final selection recommendation; and

iv. Ministerial announcement of contract award.

c. Estimated Completion Date

Determination of preferred software package is expected by March 1990, Contract signature and ministerial announcement is expected by end of April 1990.

d. Original Estimated Completion Date

Originally, it was expected that approval of the final recommendation of a preferred software package and the contract award announcement would be achieved by June 1989.

e. Justification of Activity Slippage

The schedule outlined under current status represents a slippage of nine months from the plan submitted with Major Equipment Submission in October 1988.

Major reasons are:

i. greater time allowed for the RFT responses by the tenderers;

ii. higher than anticipated elapsed time during various committee progressive review and approval processes;

iii. increased thoroughness of evaluation quality control processes;

iv. rescheduling delays of reference site visits brought about by overall delay in evaluation schedule; and

v. greater time required for assimilation of site visit experiences and consideration of management issues.

vi. greater time than anticipated needed for final contract negotiations and higher delegate and Ministerial clearance of recommended contract.

(Note: **last three items explain the slippage since Departmental responses dated 18 October 1989)**

UBPROJECT/ACTIVITY: Prime Systems Integrator RFT

Explanation of the Activity

Following the 1987/88 Review of SSRP a decision was taken to adopt a contracting strategy which entails the engagement of a Prime Systems Integrator (PSI). The PSI's contract is to be in two parts (the second part to be optionally exercised only after satisfactory completion of the first part and a Government decision to proceed). The PSI will share responsibility for, and control of, the redevelopment activity with SSR Branch management with the exception of the SLIMS and AUTOQ projects which would continue to be managed by Navy and Army respectively. Such an arrangement is seen to offer several benefits, viz:

i. it allows appropriate distribution or sharing of risk by project;

ii. commercial pressures within the PSI organisation are likely to reduce cost and schedule overrun risk;

iii. the PSI arrangement facilitates transfer of technical and functional skills to Departmental personnel by working in a joint team environment; and

iv. the joint team arrangement enables Defence specialist areas to continue to provide considerable input to the project.

a. Description

The selection of a suitable PSI is being undertaken under a two stage tendering process:

i. an open world-wide tender of information systems services industry leading to a shortlist; and

ii. refinement of offers by the shortlisted tenderers and final selection.

b. Current Status

* The PSI RFT was released on 2 November 1989.

* Evaluation methodology endorsed.

Throughout the RFT drafting stage, SSR Branch consulted with DAS, other areas of the Department and engaged an independent industry consultant (for a short period) to gain the best possible advice on an appropriate format and level of detail for industry to receive. The resultant RFT has reportedly been well received by industry as being a thorough and understandable document and one to which a response can be given without major clarification of intent or delays.

ıe next steps are:

i. RFT responses close on 8 February 1990;

ii. completion of primary evaluation and shortlist endorsement by August 1990;

iii. source evaluation report and selection recommendations; and

iv. contract signature and ministerial announcement.

c. Estimated Completion Date

Selection recommendation is expected by November 1990 and contract signature and ministerial announcement is expected in February 1991.

d. Original Estimated Completion Date

RFT release in late February 1989 and PSI selection completed by July 1989.

e. Activity Slippage

The slippage in RFT release was eight months. That slippage resulted from a longer than planned time to draft the RFT, due primarily to the initial uncertainty of exactly what level of detail would be appropriate.

The uncertainty stemmed from the lack of any precedence for a PSI RFT or contract among Australian government departments. Usually RFT preparation can be 'fast tracked' by utilising an existing or previous successful tender document. But in this instance, SSR Branch found it was trail blazing and the amount of research, review and iteration necessary to build an acceptable RFT was not able to be properly estimated at the start.

The greater time requirement for evaluation compared to the original estimate is the result of:

i. our learning from the Commercial Software Package RFT experiences resulting in time estimates now seen to be needed to properly evaluate and gain approval; and

ii. the inclusion of second stage in the evaluation which is considered essential for the establishment of a workable contract.

;UBPROJECT/ACTIVITY: Depot/Base Redevelopment/System Definition and Procurement Redevelopment (AUTOPROC)/System Definition

Explanation of the Activity

Following the 1987/88 Review of SSRP, the Depot/Base and AUTOPROC system definition activities were retraced to align with the new strategic direction of the project which, among other things, included the Commercial Application Software package strategy for SSRP and a review of mandatory supply functions.

Although the functional coverage of Depot/Base and Autoproc systems redevelopment is distinctly different, the approach to system definition is much the same with considerable collaborative effort and interaction. A combined response to question 3 is given here to avoid duplication.

The system definition is expected to provide a defined set of outputs that is concerned with advising the organisation with respect to the user objectives, requirements and benefits, the approach to development and delivery, and whether the project should proceed to the next phase (ie design and programming) or some other approach be found. The outputs from system definition become the primary inputs to preliminary design sub phase which will be executed by the Prime Systems Integrator.

a. Description

According to the Spectrum methodology, the system definition phase consists of four sub-phases: strategic proposal, new user requirements, system definition/analysis of alternatives and the advisability study as described in greater detail below:

i. the strategic proposal sets the strategic direction of the system redevelopment concept, identifies broad user requirement, and outlines project plan with indicative costs, benefits and risks;

ii. the analysis of new user requirement includes documentation of current systems including their deficiencies, user business objectives/critical success factors, and information and functional capability requirements;

iii. the alternatives analysed include functional scope for automation, various design options including those relating to technical infrastructure, development strategies and implementation/migration strategies. As a part of this analysis, more detailed cost benefit studies are also being undertaken. In addition, functional evaluation of application software packages is a major task undertaken by the Depot/Base and Autoproc project teams under this sub phase;

v. the objective of the advisability study sub phase is to recommend, within the overall strategic direction decided for SSRP, cost effective, technically feasible, low risk strategies for the development and implementation of the systems. Key outputs of the advisability study are:

(a) organisational (eg organisational change, industrial consultation, training), technical and subject matter strategies for the development and implementation of systems;

(b) a benefits analysis report including schedule of outcomes; and

(c) project sizing and costings review and the update of the Defence FYDP.

b. Current Status

* strategic proposal issued in September 1988

* Depot and Base current systems documentation completed

* new user requirements document issued

* objectives and critical success factors developed

* Autoproc benefits analysis report issued for review by the Services

* Depot and Base benefits analysis preliminary reports issued for review

* functional evaluation of commercial application software package RFT completed in August 1989

The work on the analysis of design and implementation alternatives and the development of advisability study has been underway in earnest since mid 1989. Specialist contractors with DESINE knowledge were engaged to assist with these tasks. Some of the sub-tasks are dependent on knowledge of the application software package and cannot be completed until it is selected.

Next steps are:

* formulation and analysis of alternative solutions for the Depot/Base and Autoproc computing network;

* formulation and analysis of development and implementation/migration strategies;

* identification of preferred strategies and detailed sizing and costings;

* finalisation of cost benefits reports and schedule of outcome; and

* production of advisability study report.

c. Estimated Completion Date

The production of advisability study report is expected to be completed for Departmental review by end May 1990 and Project Steering Committee (PSC) endorsement by end June 1990.

d. Original Estimated Completion Date

Complete for Departmental review end August and PSC endorsement September 1989.

e. Justification of Activity Slippage

Both the Depot/Base and AUTOPROC system definition activities are being conducted well within the original manpower estimates. The nine month slippage in duration directly relates to the availability of manpower being less timely than that expected at original planning exercise. Nevertheless, high priority tasks within the system definition activity were achieved at the expense of lower priority tasks and tasks that dependent on the selected commercial application package.

The major reasons for less timely manpower availability are:

i. several month deferment of the engagement of specialist contractors with technical experience in DESINE environment due to the delays in achieving project approval for Phases 3 and 4;

ii. greater than anticipated loss of CSO staff branch wide during third and fourth quarters in 88/89; and

iii. delays in Commercial Software Package RFT evaluation which tied up some of the subproject resources.

Above estimated completion date shows a two month delay compared to Departmental responses given on 18 October 1989. This was a result of rescheduling the sub-projects/activities due to unanticipated loss of two manager level Service personnel and a senior CSO as well as the Services' inability to fill three Major (equivalent) positions during 1990.

Analysis of user requirements, functional evaluation of commercial application software package RFT and benefits assessment tasks were given a high priority compared to technical architecture related areas. The benefits assessment consumed a greater than expected manpower input due to emphasis on quality of outputs.

UBPROJECT/ACTIVITIES: Depot and Base Systems Redevelopment/Warehousing Local Area Network Working Prototype

Explanation of the Activity

The 1987/88 Review of SSRP resulted in the agreement to pursue a concept known as Warehousing Local Area Network working prototype as a part of Depot and Base System Redevelopment:

The objectives of the working prototype are as follows:

i. visible and tangible outputs that encourage meaningful feedback and early industrial consultation on the use of new technological systems in the warehouses;

ii. examination of complex technical solutions involving distributed data processing with the potential to reduce the capital cost associated with Depot and Base computing network; and

iii. understanding the design issues involved with a tri-Service common core warehousing system which can be adapted to warehouse operations of diverse sizes and complexities.

This activity was initiated in June 1988 as a major contribution to system definition and preliminary design activities.

a. Description

The Working Protoype is a prototype of the Issues and Receipts functionality designed to demonstrate the use of technological devices and system constructs that support process control requirements at selected sites.

Working Prototype was fielded at six sites in a manner that did not replace the current system operation but enabled the warehouse managers and operators to try out technological devices and new system constructs.

The Working Prototype is being used as the basis for the development of both the Tri-Service Product and its Operational Pilot.

b. Current Status

* Prototype Fielding concluded October 1989

* Site Reports completed November 1989

* Equipment Performance Evaluation completed November 1989

* Prototype Consolidation completed November 1989

* Prototype Consolidation Report issued December 1989

. Estimated Completion Date

The Working Prototype activity was completed in December 1989.

d. Original Estimated Completion Date

Originally, it was expected that Prototype Fielding would be completed in April 1989 and the activity finalised in June 1989.

e. Justification of Activity Slippage

The schedule outlined under Current Status represents a slippage of six months.

* 30% greater resource consumption than anticipated, however, this estimating error is well within SPECTRUM guidelines for estimates at project inception;

* delay in engagement of contractors originally required for 3rd quarter FY 88/89 to 2nd quarter FY 89/90;

* impact of staff turnover, specifically loss of trained staff resulting in the requirement to retrain new CSO1 intake;

JBPROJECT/ACTIVITY: Depot and Base Systems Redevelopment/ Warehousing/LAN Operational Pilot

Explanation of the Activity

The aim of the Operational Pilot encompasses two missions:

i. completion of the development and operational commissioning of the warehousing application using working prototype as the starting point and the evaluation of this system in the context of the full Depot and Base redevelopment, including the impact of the introduction of new technology devices in an operational environment; and

ii. provision of computing support to the new warehouse at 21 Supply Battalion at Moorebank in Sydney as an interim solution pending the redevelopment of the Depot and Base System.

It has the following objectives:

i. to produce a Tri-Service warehousing technology application based on the working prototype (the Tri-Service Product);

ii. to verify the warehousing technology defined as part of the WLAN working prototype in a working environment and encourage early industrial consultation with respect to the final Depot and Base system;

iii. to provide the Branch and the Services' Users with conversion, organisation, implementation and training experience in the warehousing environment;

iv. to provide a pilot site for the demonstration, testing and refinement of user requirements for warehousing application functions; and

v. to verify the benefits of warehousing function automation in a working environment.

a. Description

The WLAN Operational Pilot is being approached in two main streams. The first involves the enhancement of the Working Prototype to create the WLAN Tri-Service Product. The second is the implementation of this system at 21 Supply Battalion in Moorebank in Sydney. The implementation includes the provision of interfaces to existing Army Supply systems to maximise the efficiency of the system.

The two streams are being progressed concurrently.

b. Current Status

* creation of the Tri-Service Product is underway

* construction of the Interfaces is underway

* implementation tasks, such as the preparation of a training strategy and definition of documentation being produced, have commenced.

c. Estimated Completion Date

The implementation of the Operational Pilot will be completed by the end of June 1990.

d. Original Estimated Completion Date

Originally, it was expected that implementation would be completed in January 1990 (this date is from Advisability Study dated December 1988).

e. Justification of Activity Slippage

The schedule outlined under Current Status represents a slippage of five months. It should be noted that the schedule for the commissioning of the new Warehouse has slipped by a similar amount of time.

The main reasons for the slippage are the same as those given for the working prototype. Additional reasons are:

i. delays in the completion of the working prototype; and

ii. it was originally intended that the current Inventory Management and Control system (SCUBAD running on CONCURRENT equipment) be converted to run on the WLAN equipment. One man year of effort was expended on the conversion before it was decided to interface to the current systems instead.

;UBPROJECT/ACTIVITY: Procurement Redevelopment/AUTOPROC Pilot

Explanation of the Activity

The AUTOPROC Pilot system aims to support preliminary design and development activities by, inter alia, providing an opportunity for users:

i. to assist with the development of specifications for package customisation using the pilot to perform "real" tasks;

ii. to experiment with job and procedures design;

iii. to gauge the implications of AUTOPROC for the regulatory and legal framework and vice versa;

iv. to accurately measure (and to plan for achieving) the manpower savings and other benefits to flow from production system implementation;

and for the PSI;

i. to trial technical options as part of the specification and design of the production environment;

ii. to better estimate network traffic and system load;

iii. to develop an understanding of the circumstances needed to justify various hardware allocations to work groups; and

iv. to train users in a "hands on" situation.

a. Description

The AUTOPROC Pilot will deliver office automation and procurement functionality to users located in Army Logistics Command (17 terminals) and Air Force Headquarters Support Command (23 terminals) Melbourne. The procurement functionality will consist of a "minimally tailored" version of the selected software package. (Note: Software packages are "customised" when their functionality is enhanced to satisfy user's requirements and "tailored" when changes are made to screen designs and data item description etc without affecting the underlying functionality).

b. Current Status

* pilot sites/organisational groups selected

* design of the configuration complete except for some components of the communications network

* organisational/procedural arrangements needed to achieve aims of the pilot are being developed

c. Expected Completion Date

The AUTOPROC Pilot is expected to be fully operational by the end of November 1990.

d. Original Estimated Completion Date

December 1989

e. Justification for Differences

Reasons for delay in AUTOPROC Pilot are the same as those provided for the System Definition activity under manpower availability.

Delay in the software package contract signature also required rescheduling of the pilot.

UBPROJECT/ACTIVITY: Facilities and Central Computing/
Acquisition of Computer Facilities

Explanation of the Activity

This activity is for the procurement of DESINE hardware and software to serve as the SSRP Development environment and for the provision of suitable accommodation to house the equipment. This equipment will be used for:

i. definition and preliminary design activities by:

- Depot and Base Redevelopment
- Procurement Redevelopment
- AUTOPROC Pilot

ii. interfacing with the existing supply systems running on UNISYS mainframes; and

a. Description

Management of major computer facilities refurbishment and the planning, acquisition and installation of the initial mainframe to support development activities and interface between the DESINE and UNISYS computer environments.

b. Current Status

* Deakin minor works completed December 1989

* mainframe computer delivered, installed and undergoing acceptance testing at Deakin Offices

* details of the refurbishment of the computer facility at Russell was finalised in November 1989

Next steps are:

* complete acceptance test activities of the mainframe

* procure and install programmable workstations at Campbell Park Offices enabling access to the mainframe

* complete installation and testing of equipment for interface between DESINE and UNISYS

* follow on activities associated with the refurbishment of the Russell computer facility.

c. Estimated Completion Dates

* programmable workstations installed and mainframe operational: March 1990

* the refurbishment at Russell is now planned to be completed October 1990.

d. Original Estimated Completion Date

* mainframe operational: March 1990

* Russell refurbishment - March 1990

e. Justification for Slippage

* Russell refurbishment delayed by studies into Departmental requirements for central computer facilities.

ENHANCEMENTS TO CURRENT EXECUTIVE SYSTEMS

a. Description

b. Current Status

c. Estimated Completion Date

d. Original Estimated Completion Date

e. Justification of Slippage

\RMY UNIT SYSTEM (AUTOQ)

Explanation of the Activity

a. Description

b. Current Status

c. Estimated Completion Date

d. Original Estimated Completion Date

c. Justification of Slippage

ACTIVITY: SLIMS

Explanation of the Activity

As part of the Auxiliary Oiler Replenishment (AOR) project, Navy has been developing SLIMS as an integrated shipboard logistics system covering supply, engineering and configuration management. The 1987/88 Review of SSRP recommended that the SLIMS system be adopted to meet the SSRP requirement to develop shipboard systems both as a means of bringing forward benefits and ensuring that, where possible, compatability is achieved with other supply systems. The project continues to be managed by Navy with funding provided by SSRP; SLIMS project management is responsive to SSRP standards and guidance.

a. Description

The SLIMS system, in total, will provide an integrated logistic system for supply and maintenance for 21 major Navy platforms and 35 tenders. Primary supply functions which will be supported include requirements determination, purchasing and stock control.

b. Current Status

* Approval for implementation to proceed granted in August 1989.

Next steps are:

* Installation of training system at HMAS CERBERUS scheduled for January 1990

* Installation of Data Interchange Point network planned for March 1990

* Installation of first Ship fit is scheduled for July 1990.

c. Estimated Completion Date

Complete installation of the SLIMS system is planned by December 1994.

d. Original Estimated Completion Date

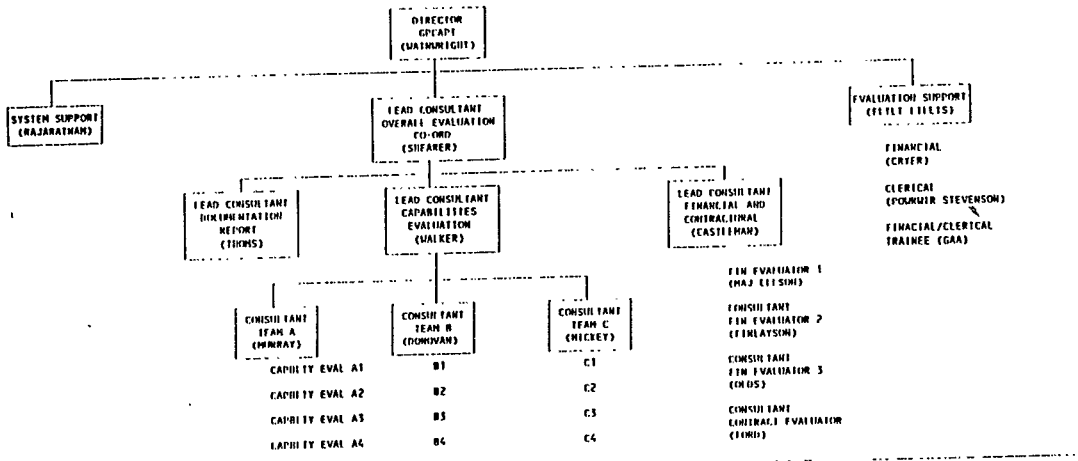
June 1992.

e. Justification of Slippage

Delay in completion of implementation is due to deferral of Project approval and revised funds programming in the FYDP. The original scheduled date was based on approval to proceed being granted early in Financial Year 1988/89. The approval was achieved in the context of the FY 1989/90 budget.

PAC QUESTION 6A

SSRP PSI RFT EVALUATION TEAM STRUCTURE



NOTES:

1. All the Capability Evaluators will be Departmental SSRP and User staff (to be nominated).

DEPARTMENT OF DEFENCE

RUSSELL OFFICES
CANBERRA, A.C.T. 2600

IG 1262/89
IG 88/43542

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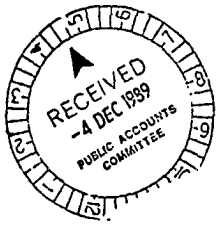

4 December 1989

Mr T Rowe
Secretary
Joint Parliamentary Committee
of Public Accounts
Parliament House
Canberra ACT 2600

COMPUTER REDEVELOPMENT PROGRAM - SSRP

I refer to my memorandum IG 1260/89 dated 1 December 1989 which provided information that had been sought by the Committee and advised that other material would be provided today. That material is attached.

In addition you should note that since preparation of the list of Departmental witnesses (attachment 1), the Secretary has advised his availability to attend. His full name is Anthony Joseph AYERS.

In relation to your request for any further comments the Department may have on current activities, there is nothing to add to material already provided.

F.R. HARVEY
Inspector-General

WITNESSES

1. The names and designations of the Department of Defence witnesses to appear before the Committee on Friday 8 December 1989 are:

ANDREW, Mr Robert, Assistant Secretary, Information Systems Policy Division, Department of Defence, Russell Offices, Australian Capital Territory

BRAY, Brigadier Peter James, Director-General of Supply, Army, Department of Defence, Canberra, Australian Capital Territory

BROWN, Mr Ian Powell, Assistant Secretary, Logistics Computer Centre, Department of Defence, Canberra, Australian Capital Territory

FERRY, Commodore David Sage, Acting First Assistant Secretary, Information Systems Policy, Department of Defence, Canberra, Australian Capital Territory

GREY, Major General John Cedric, Assistant Chief of the Force for Logistics, Department of Defence, Canberra Australian Capital Territory

HARVEY, Mr Francis Rupert, Inspector-General, Department of Defence, Canberra, Australian Capital Territory

HAUGHEY, Mr Mark, Director, Information Systems Policy Division, Department of Defence, Canberra, Australian Capital Territory

McINTOSH, Dr Malcolm Kenneth, Deputy Secretary, Acquisition and Logistics, Department of Defence, Canberra, Australian Capital Territory (only from 2 pm)

PAYNE, Group Captain James Alan, Director, Supply Computing, Royal Australian Air Force, Canberra, Australian Capital Territory

PERERA, Dr Asoka, Director Depot/Base Systems Redevelopment, Supply Systems Redevelopment Branch, Department of Defence, Canberra, Australian Capital Territory.

SMITH, Mr Terence Charles Dominic, General Manager, Supply Systems Redevelopment Branch, Department of Defence, Canberra, Australian Capital Territory

WAINWRIGHT, Group Captain Noel Kenneth, Director, Major Contracts Supply Systems Redevelopment Branch, Canberra, Australian Capital Territory

YOUL, Commodore Mervyn John, Director, General Naval Logistics Policy, Department of Defence, Canberra, Australian Capital Territory

UPDATE OF THE ORIGINAL SSRP SUBMISSION

1. An update of responses to individual issues raised by the Senate, as incorporated in the Department's submission of March 1989 is provided hereunder:

a. Question. The length of time SSRP has been underway.

Updated Response. There is no change to the evidence previously provided.

b. Question. The resources committed to the project to date.

Updated Response. Resource usage from project commencement to 30 Sep 89 has been:

*	project office manpower costs (both civilian and Service manpower)	$29.8M
*	consultancy services (including on site contractors)	$ 2.6M
*	computing support	$11.4M
*	other operating expenses	$ 1.9M
		$45.7M

Additionally during the same period, manpower costs of the Services staff which are located with the project to represent the interest of users, have been $10.5M. It should be noted that manpower costs are full costs (ie. salaries plus administrative on costs).

c. Question. The objectives of SSRP as stated when the project commenced, and the results achieved by the program to date.

Updated Response. In regard to objectives, there is no change to the previous evidence provided. In regard to the results achieved to date, updated project plans for SSRP including the current status of each element of the project, were provided in the Departments response to the Committee's request 17/1988 of 3 Oct 89. To summarise, since the original submission, SSRP has adhered to the development strategy unanimously endorsed by the ADP Acquisition Council and which has four key elements viz:

a. the acquisition of all hardware systems and system software utilising the Department's DESINE contract which was recently awarded to IBM;

b. the evaluation and acquisition of a commercial software package, or packages, as the basis of the redeveloped systems;

c. the use of a high level integrated design, which is a system segment architecture to provide a logical, conceptual framework within which future development initiatives and possible software package solutions can be placed and to set many design principles in place to ensure that the design and implementation of component systems would result in a cohesive supply system; and

d. the engagement of a Prime Systems Integrator to provide management for, and to undertake, SSRP redevelopment activities.

The high level integrated design is now completed and the Department's DESINE contract is in place. A third element, the software package selection, is nearing completion. A shortlist of two tenders was announced on 2 Nov 89 and a contract is expected to be in place in early 1990. A request for tender for the fourth element, the engagement of a Prime Systems Integrator (PSI) was also announced on 2 Nov 89. Tenders will close in Jan 90 and the PSI is expected to be in place late 90/early 91.

Additionally, the Government approved the implementation of the SLIMS and AUTOQ elements of SSRP in the context of the 1989-90 Budget and those elements are now proceeding to implementation.

d. Question. SSRP's original and 1988 cost estimates.

Updated Response. The original Business Review Working Group estimates of the costs of redevelopment, in December 1982 prices, were:

Capital costs	$ 96.3M
Manpower (including Service User Groups)	$ 90.4M
	$186.7M

Based on advice from Defence Costing Section, Resource Policy Branch, these costs translate to $309.6M in April 1989 prices. These original estimates contained no contingency allowance. Nor did they include recurring costs over the period of redevelopment. By comparison, the current estimates of the costs of redevelopment (excluding recurring costs of $98.2M) in April 1989 prices are:

Capital costs	$247.3M
Manpower costs (including Service User Groups)	$ 85.4M
	$332.7M

These costs include a contingency allowance of $48.8M

e. Question. The planning and consultation that occurred at the commencement of the project.

Updated Response. There is no change to the previous evidence provided.

f. Question. Cost benefits of the SSRP.

Updated Response. An updated response, which provides a price update from 1988 to 1989 prices follows:

"Cost-Benefit Analysis: Arthur Andersen and Co have estimated that quantifiable benefits totalling $512M (April 1989 prices) should accrue through redevelopment in the next nine years by enabling:

1. reductions in the number of supply personnel (civilian and military) needed for the supply function ($230M);

2. reductions in the cost of procurement ($58M);

3. reductions in the related costs of holding inventory ($141M); and

4. reductions in the level of obsolete stock ($83M)

Total outlays, which include the redevelopment costs and recurring costs, are estimated at $430M (April 89 prices). These total outlays are expected to be recouped by 1995. The ongoing net benefit after redevelopment activity has ceased has been conservatively estimated by Arthur Andersen and Co to be $50M per annum (April 89 prices).

q. Question. What attempts have been made by the Department of Defence and the Australian Defence Force to ensure any major computer purchases made since 1986 conform to the standardisation and decentralisation rationale of the Supply Systems Redevelopment Project and the related Defence computer acquisition programme, Project DESINE.

Updated Response. There is no change to the previous evidence provided.

COMMITTEE STRUCTURE IN SUPPORT OF SSRP

1. **Question:** Information of the current Committee structure in support of the SSRP including any committees which impact on the decision making process such as the Tender Evaluation Steering Committees, including a diagrammatic presentation of the hierarchial relationship of Committees.

2. **Response:** Management of SSRP is vested in specific appointments with committee oversight (through defined reporting arrangements). In addition, normal Defence FYDP/budgetary and major capital project approval processes apply (also with associated committee oversight).

3. The Assistant Chief of the Defence Force for Logistics (ACLOG) is responsible to the Secretary (through Deputy Secretary Acquisition and Logistics) and to the Chief of the Defence Force (through the Vice Chief of the Defence Force) for SSRP. The General Manager Supply Systems Redevelopment (GMSSR), who has day-to-day management responsibility for the project, reports directly to ACLOG. Project performance is monitored by the SSRP Project Steering Committee which is chaired by ACLOG, and which meets on an as required basis but no less frequently than at six month intervals. The Steering Committee last met in August 1989. The membership and terms of reference for this committee are at Annex A to this attachment. Additionally, a Consultative Forum, chaired by the GMSSR and with the Deputy Directors General of Supply and a Logistics Computer Centre representative as members, meets on a fortnightly basis to oversight progress and resolve minor policy issues. The Consultative Forum membership, supplemented with representatives from the Department of Administrative Services, Financial Systems Redevelopment Project, Information Systems Policy Division, Capital Equipment Program Division and Defence Audit, comprises the SSRP Software Evaluation Steering Committee which meets on an as required basis to consider reports and recommendations pertaining to the evaluation of tenders for the SSRP commercial software package. Both this committee and the Consultative Forum report to the Project Steering Committee. For the evaluation of tenders for the Prime Systems Integrator, it is intended that an Evaluation Steering Committee comprising the Project Steering Committee members, augmented by representatives from Department of Administrative Services, Defence Audit and Capital Equipment Program Division, will meet on an as required basis to consider reports and recommendations prepared by the Evaluation Team. These management arrangements are presented diagrammatically at Annex B to this attachment. An overview of the Committee Structure relevant to the Defence budgetary/FYDP and major capital project approval processes is at Annex C.

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Annex A to
Attachment 3

SSRP: PROJECT STEERING COMMITTEE: TERMS OF REFERENCE

CHAIRMAN: Assistant Chief of the Defence Force for Logistics

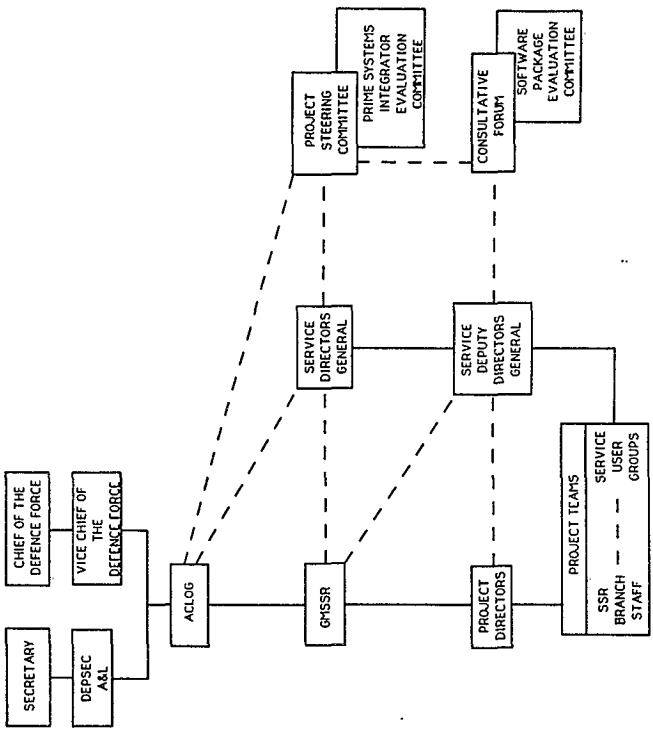
MEMBERS:
- Director General Naval Logistics Policy
- Director General Supply - Army
- Assistant Chief of the Air Staff - Supply
- Assistant Secretary Logistics Computer Centre
- Principal Adviser Logistics Policy
- Director General Operational Logistics
- First Assistant Secretary, Resources & Financial Programs Division
- First Assistant Secretary Information Systems Policy Division
- General Manager Supply System Redevelopment Branch

INVITED MEMBERS: Members may be invited from other Departments and Agencies as necessary.

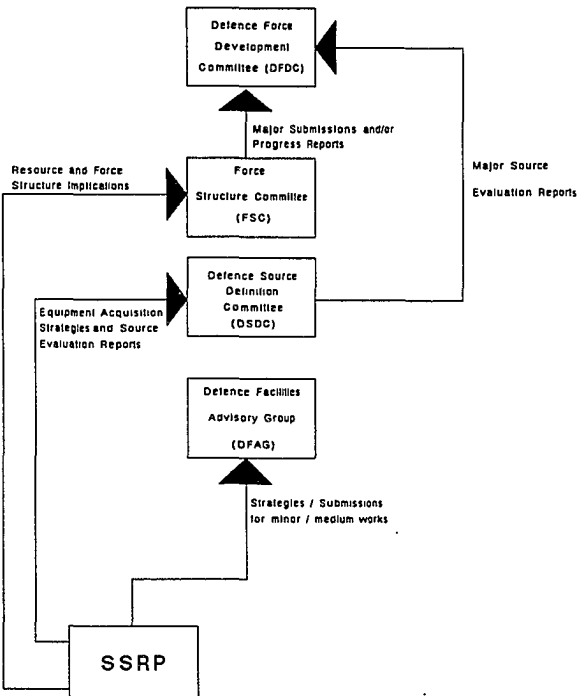
FUNCTIONS:

- To review progress of work against approved cost and schedules.
- To approve changes to costs and work schedules within DFDC endorsed parameters.
- To act as final arbitrator in resolving differences between the Services which impact redevelopment costs, schedules or ADF operational capability and readiness objectives.
- To provide direction and strategic guidance to GMSSR on objectives, priorities and policies and goals for SSRP.

SSR PROJECT MANAGEMENT STRUCTURE



SSRP : COMMITTEE STRUCTURE



DEPARTMENT OF DEFENCE

RUSSELL OFFICES
CANBERRA, A.C.T. 2600

IN REPLY QUOTE

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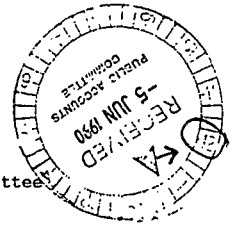
IG 88/43542

5 July 1990



Mr T. Rowe
Secretary
Joint Parliamentary Committee
of Public Accounts
Parliament House
CANBERRA ACT 2600

INQUIRY INTO THE DEPARTMENT OF DEFENCE COMPUTER REDEVELOPMENT PROGRAM - SSRP

I refer to your letters dated 22 and 29 June 1990 which sought information about the current status of matters associated with this review and which also posed specific questions.

The material requested in your 29 June 1990 request is at Attachment A as follows:

- the Arthur Young Supply Services Report;
- the Task Force Report on Defence Logistics Redevelopment; and
- the Defence Logistics Strategic Planning Guide.

It should be noted that both the Arthur Young and the Task Force reports are the public release versions of those documents.

A copy of the UNIX Working Party Report is being obtained and will be provided as soon as possible. Inspections of Defence Supply facilities are being arranged and the tentative arrangements are for:

- Moorebank Logistics Group (Army) and Naval Support Command Zetland NSW on 1 August 1990,

- RAAF Headquarters Logistics Command and Army Logistics Command - 2 August 1990, and
- Surveillance Research, Electronics Research and Weapons Systems Research Laboratories, Defence Science and Technology Organisation, Salisbury SA - 3 August 1990.

Further details relating to the visits will be confirmed between our offices in due course.

Attachment B provides responses to the questions posed in your 22 June 1990 request except for question 1 and the first part of question 2. Material in response to these questions is being prepared and will be provided as soon as possible. Also included at Attachment C is a second update of the original SSRP submission.

A.J. STANLEY
for Inspector-General
AOS.

ATTACHMENT A

ATTACHMENT B

RESPONSES TO JPCPA INFORMATION REQUIREMENTS

Question 2

Details of the General Managers of SSR Branch since 1984.

Response

Since the formal establishment of the Branch in August 1984, the position of General Manager, Supply Systems Redevelopment Branch has been occupied by the following officers:

a. August 1984 to April 1985: - GPCAPT M.A. PARK (Acting)

b. April 1985 to February 1986: - Mr S. RAKKAR

c. March 1986 to July 1986: - Mr D. WHITTY (Temporary Secondment)

d. July 1986 to present: - Mr T.C.D. SMITH

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QUESTION 3

Please provide a diagram of the structure of the SSRP Branch showing:

(a) the hierarchy of positions in the Branch,

RESPONSE

1(a) Branch Hierarchy

The hierarchy of positions is provided in Charts 1-7 at Annex A.

Chart 1 represents the Branch Executive. General Manager Supply Systems Redevelopment (GMSSR) reports to the Assistant Chief of the Defence Force - Logistics (ACLOG).

Subsequent charts at Annex A show the establishment positions and contractor/consultant engagements within each directorate.

QUESTION 4

Please provide:

(a) a list of all current activities/subprojects currently being undertaken by the SSR Branch.

(b) the names of contractors/consultants currently engaged in the SSR Branch, by activity.

RESPONSE

4(a) Current activities/subprojects.

The titles of all current activities/subprojects are:

	SUBPROJECT	ACTIVITY
a.	Major Contracts	Commercial Application Software Package Acquisition
b.	Major Contracts	Prime Systems Integrator RFT
c.	Depot and Base Systems Redevelopment	System Definition
d.	Depot and Base Systems Redevelopment	Warehousing LAN - Working Prototype
e.	Depot and Base Systems Redevelopment	Warehousing LAN - 21 Supply Battalion Pilot
f.	Procurement Redevelopment	System Definition
g.	Procurement Redevelopment	AUTOPROC Pilot
h.	Facilities and Central Computing	Acquisition of Computer Facilities
i.	Enhancements to Current Executive Systems	
j.	Army Unit System (AUTOQ)	
k.	Ships Logistics Information Management System (SLIMS)	

Notes:

1. In regard to the software package acquisition (activity "a") this activity was previously known as 'Software Package RFT' and encompassed the evaluation of tenders for the package. A contract has now been awarded to MINCOM (Aust) Pty Ltd and the process of acquiring, installing and testing the package has commenced.

2. Enhancements to current Executive Systems are managed by the Logistics Computer Centre but are funded by SSRP and are responsive to SSR Project Management Structure.

3. The activities at sub paragraphs j and k above are not directly managed by SSR Branch. Management responsibility for those activities rests with Army and Navy Offices respectively. However, those sub-projects are funded through SSRP, and Army and Navy Offices are responsive to SSR Branch standards and guidance for their respective sub-projects. The management of these sub-projects is also responsive to SSR Project Management Structure.

4. Ongoing SSRP support activities undertaken by the Director Project Coordination are not separately identified for the responses to questions 4(a). These activities include standards, quality assurance and finance/admin support for all sub-projects as well as liaison with sub-projects at i, j and k above.

4(b) Responsible SSR Branch Officers

The names of contractors/consultants engaged in the SSR Branch, by activity and as at 4 Jul 90, are provided at Annex B.

QUESTION 5

For all activities, give:

(a) a brief description

(b) their current status

(c) expected completion dates as previously reported at Monday 18 December 1989

(d) expected completion dates as at Friday 15 June 1990

(e) where significant differences have occurred in the completion of an activity/subproject between December 1989 and June 1990, provide justifications.

RESPONSE

Responses to this question are provided at Annex C for each of the Subproject/Activities listed in response to question 4.

QUESTION 6

Please Provide:

(a) Detail the current staffing structure for evaluating the PSI RFT and the source of the manpower resources

(b) Provide the current estimate of the cost of the PSI evaluation process

RESPONSE

6(a) Staffing Structure and Sourcing of PSI RFT Evaluation

The staffing structure for evaluating the PSI RFT is shown in the organisation diagram at Annex D. The total team, including the Director who has other responsibilities, numbers 23. Ten are external consultants and the other 13 are resourced principally from SSR Br although several Service user personnel are included in the capability evaluation teams A, B and C.

6(b) Estimated Cost of PSI evaluation

The current estimate of the PSI evaluation process is $1.9M.

QUESTION 7

(a) What has been the cost of the evaluation of the Commercial Software Package

(b) Provide details of the original estimated completion date and the completion date

RESPONSE

7(a) Estimated current cost Commercial Software Package evaluation

The estimated current cost of software package RFT preparation and tender evaluation is $0.89M.

7(b) Original estimated completion date and completion date

The scheduled completion date, as advised in December 1989, was April 1990. The contract was awarded June 1990 (see page B - 21 for details).

QUESTION 8

(a) How does the SSRP Branch currently source its technical expertise?

(b) At what cost for specific activities or subprojects if contractors/consultants have been engaged?

RESPONSE

8(a) Current Sourcing of Technical Expertise

SSR Branch staff includes a number of technical and subject matter specialists and officers who are being trained on an ongoing basis through direct involvement in project activities. In addition, the Branch obtains assistance from other areas such as Logistics Computer Centre Branch for conduct of its activities.

System definition and prototype/pilot work require technical expertise of experienced system implementors as well as specialists in selected technical environments. Such expertise is not available to the project in required numbers from Departmental staff and the method employed is to engage consultants/contractors on the basis of defined requirements. These requirements are defined through requests for quotations containing a brief covering requirement stated in terms of scope, objectives, terms of reference and specific skills required.

8(b) Contractor/Consultant Costs by Activity

The contractor/consultant costs for each SSR Branch activity are divided into three periods:

i. prior to the 1987/88 review of SSRP;

ii. 1987/88 SSRP Review Period; and

iii. Post 1987/88 Review Period.

Prior to 1987/88 Review of SSRP

ACTIVITY	COST ($m)
Depot/Base System Definition	0.270
Enhancements to Current Executive Systems	0.092
Total	0.362

1987/88 SSRP Review Period

ACTIVITY	COST ($m)
Review Consultant	0.437
Other Contractor Contributions	0.227
Total	0.664

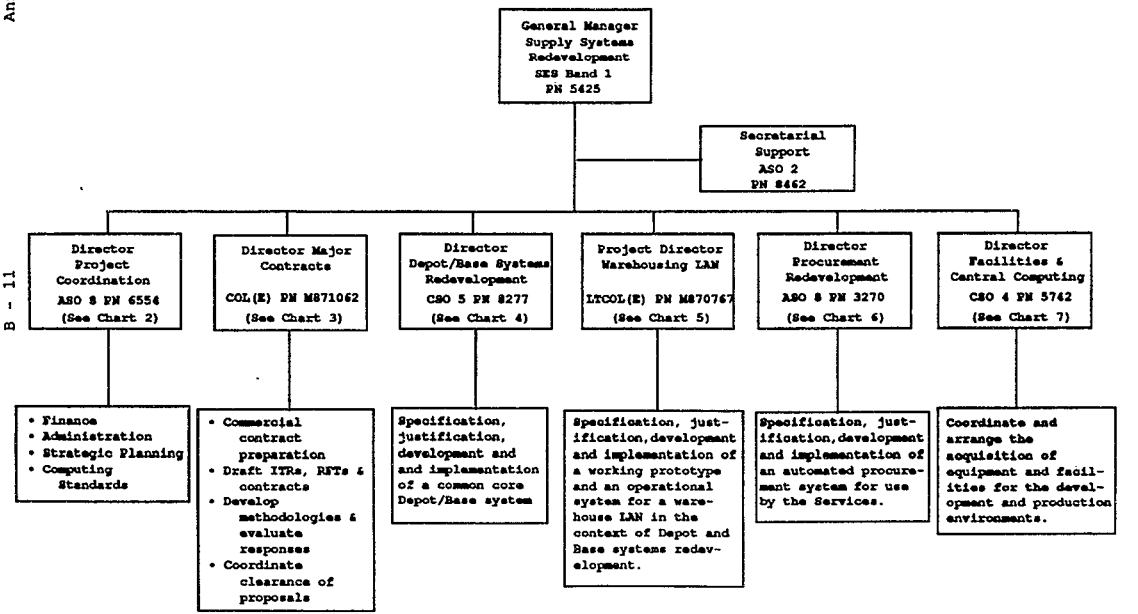
Post 1987/88 Review Period

CURRENT ACTIVITIES (Includes expenditure to date & future obligations)	COST ($m)
Prime Systems Integrator RFT	1.804
Depot/Base Systems Definition	0.339
Warehousing LAN - Working Prototype	0.918
Warehousing LAN - 21 Supply Battalion Pilot	0.904
Procurement Redevelopment System Definition	0.101
Acquisition of Computer Facilities	0.549
Army Unit System (AUTOQ)	0.145
SLIMS	1.240
Sub Total	6.000
COMPLETED ACTIVITIES	
- High Level Integrated Design	0.312
- Report Preparation ADP Acquisition Council	0.002
- Commercial Application Software Package RFT	0.823
Sub Total	1.137
Total	7.137

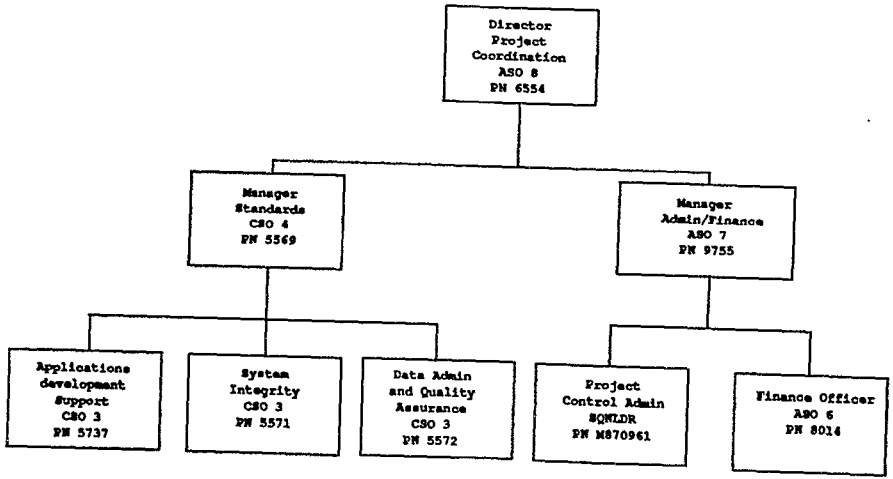
SUMMARY

	$m
Pre 1987/88 Review	0.362
1987/88 Review Period	0.664
Post 1987/88 Review	7.137
Total	8.163

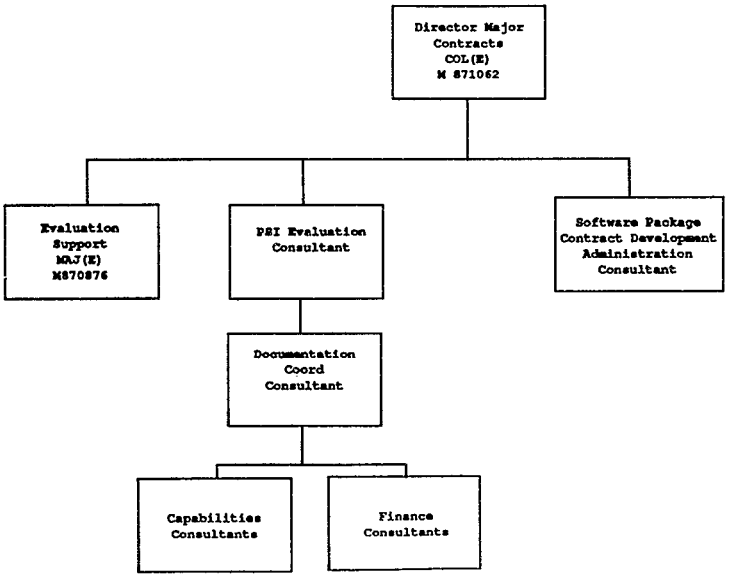
SSR BRANCH ORGANISATION
CHART 1 AS AT 15 JUNE 1990



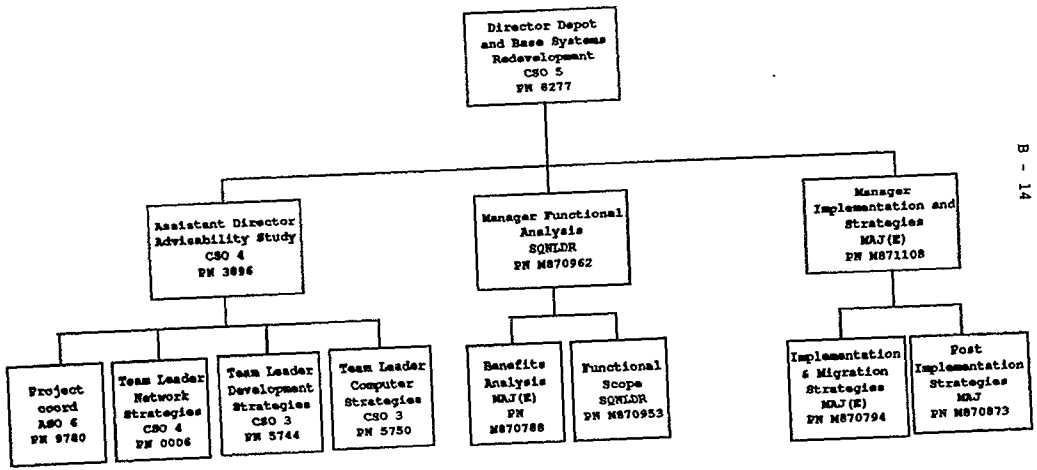
SSR BRANCH ORGANISATION
CHART 2 AS AT 15 JUNE 1990



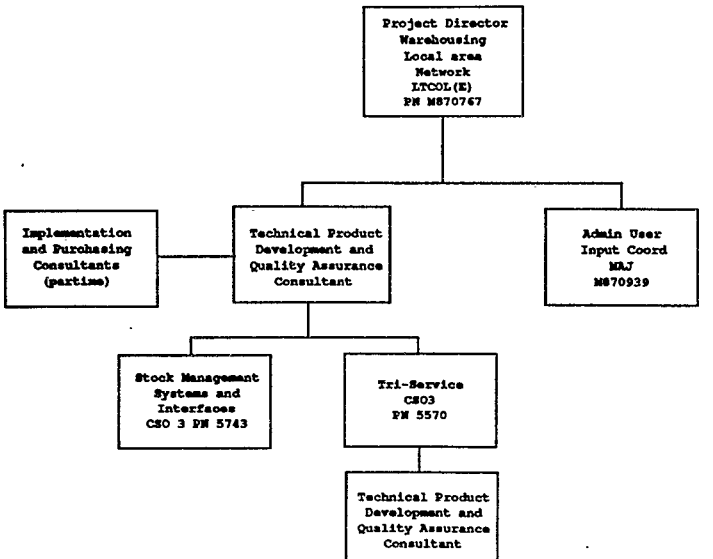
SSR BRANCH ORGANISATION
CHART 3 AS AT 15 JUNE 1990



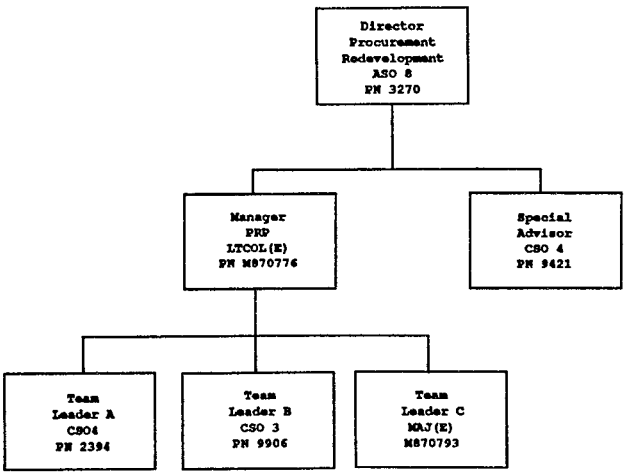
SSR BRANCH ORGANISATION
CHART 4 AS AT 15 JUNE 1990



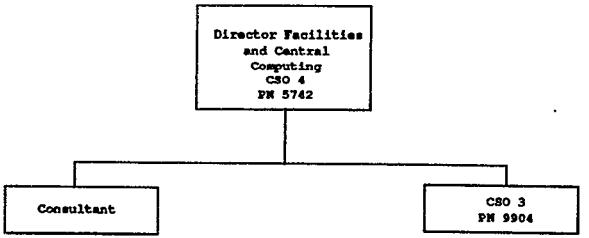
SSR BRANCH ORGANISATION
CHART 5 AS AT 15 JUNE 1990



SSR BRANCH ORGANISATION
CHART 6 AS AT 15 JUNE 1990



SSR BRANCH ORGANISATION
CHART 7 AS AT 15 JUNE 1990



ANNEX B

QUESTION 4(b)

MAJOR CONTRACTS

Consultant:	Dr Geoff Ford (PSI Contract Development and Administration Manager)
Reports to:	Director Major Contracts
Consultant:	Mr Alan Buerckner
Reports to:	Manager Software Evaluation
Consultant:	Mr Ian Shearer (Manager Prime System Integrator Evaluation)
Reports to:	Director Major Contracts
Consultant:	Mr Russell Walker
Reports to:	Manager Prime System Integrator Evaluation
Consultant:	Mr Bruce Castleman
Reports to:	Manager Prime System Integrator Evaluation
Consultant:	Mr Gavin Thoms
Reports to:	Manager Prime System Integrator Evaluation
Consultant:	Mr J. Donovan
Reports to:	Manager Prime system Integrator Evaluation
Consultant:	Mr R. Finlayson
Reports to:	Manager Prime system Integrator Evaluation
Consultant:	Mr A. Hickey
Reports to:	Manager Prime system Integrator Evaluation
Consultant:	Mr R. Murray
Reports to:	Manager Prime system Integrator Evaluation
Consultant:	Mr K. Olds
Reports to:	Manager Prime system Integrator Evaluation

DEPOT AND BASE SYSTEMS REDEVELOPMENT SYSTEMS DEFINITION

No consultants currently employed.

WAREHOUSING LAN

Consultant: Mr Peter Madden (21 Sup Bn Applications Manager)

Reports to: PDWLAN

Consultant: Mr Paul Markowski

Reports to: Section Leader 21 Sup Bn Applications

Consultant: Mr Greg Toomey

Reports to: Section Leader 21 Sup Bn Applications

Consultant: Ms Lynette Philipson (Warehousing Applications Manager

Reports to: PDWLAN

Consultant: Mr P. De Angelis

Reports to: Tri-Service Manager

Consultant: Mr Anthony Farr (Section Leader Support 2)

Reports to: Support Manager

FACILITIES AND CENTRAL COMPUTING

Consultant: Mr Geoff Barnes

Reports to: Director, Facilities and Central Computing

PROJECT COORDINATION

Consultant: Mr David Starling

Reports to: Director, Project Coordination

Note: Project Coordination undertakes support functions (please refer to page B - 5 paragragh 4)

ANNEX C

QUESTION 5

RESPONSE

SUBPROJECT/ACTIVITY: Major Contracts/Commercial Application Software Package RFT Acquisition

Explanation of the Activity

Following the 1987/88 Review of SSRP a decision was taken to consider the feasibility of using commercial application software packages in the development of the SSRP solution. The strategy adopted to consider this possibility was firstly to select the most appropriate commercial package or packages currently available, and to then undertake a detailed feasibility examination of that package/s over a short period leading to a decision to acquire and use the package/s if the examination showed the proposal to be feasible (this activity was previously known as the Software Package RFT - however, this phase has been completed with the awarding of the contract to MINCOM (Aust) Pty Ltd.

a. Description

The selection of commercial application software package/s for the detailed examination was approached using a two stage tender process:

i. an invitation to register (ITR) with a world-wide canvassing of the software industry leading to a shortlist of acceptable offers; and

ii. a restricted Request for Tender (RFT) for the shortlisted offers from the ITR.

This activity is conducted within DAS Government ADP Procurement guidelines utilising Defence source selection procedures. The selection tasks are overseen by an evaluation steering committee and major recommendations subjected to a Departmental Committee process.

b. Current Status

i. ITR issued in May 1988

ii. ITR phase completed in December 1988

iii. RFT issued in December 1988 and RFT closed on 30 March 1989.

iv. Source evaluation and selection completed 31 May 1990.

v. Contract negotiations completed June 1990 and awarded to MINCOM (Aust) PTY LTD.

Next Steps are:

i. Initiate a new activity to acquire, install, test and accept the package.

c. Estimated Completion Date as at 18 December 1989

Determination of preferred software package is expected by March 1990. Contract signature and ministerial annoucement is expected by end of April 1990.

d. Estimated Completion Date as at 30 June 1990

Contract award and was achieved 29 June 1990. It is anticipated that testing and acceptance will be completed by end September 1990.

e. Justification of Activity Slippage

The schedule outlined under current status represents a slippage of two months from the estimated completion date in December 1989.

The major reason for the slippage is that intra Departmental approval processes, outside the control of the Project, took much longer than planned.

SUBPROJECT/ACTIVITY: Prime Systems Integrator RFT

Explanation of the Activity

Following the 1987/88 Review of SSRP a decision was taken to adopt a contracting strategy which entails the engagement of a Prime Systems Integrator (PSI). The PSI's contract is to be in two parts (the second part to be optionally exercised only after satisfactory completion of the first part and a Government decision to proceed). The PSI will share responsibility for, and control of, the redevelopment activity with SSR Branch management with the exception of the SLIMS and AUTOQ projects which would continue to be managed by Navy and Army respectively. Such an arrangement is seen to offer several benefits, viz:

i. it allows appropriate distribution or sharing of risk by project;

ii. commercial pressures within the PSI organisation are likely to reduce cost and schedule overrun risk;

iii. the PSI arrangement facilitates transfer of technical and functional skills to Departmental personnel by working in a joint team environment; and

iv. the joint team arrangement enables Defence specialist areas to continue to provide considerable input to the project.

a. Description

The selection of a suitable PSI is being undertaken under a two stage tendering process:

i. an open world-wide tender of information systems services industry leading to a shortlist; and

ii. refinement of offers by the shortlisted tenderers and final selection.

b. Current Status

i. The PSI RFT was released on 2 November 1989.

ii. Evaluation methodology endorsed.

iii. RFT responses closed on 8 February 1990.

Throughout the RFT drafting stage, SSR Branch consulted with DAS, other areas of the Department and engaged an independent industry consultant (for a short period) to gain the best possible advice on an appropriate format and level of detail for industry to receive. Three responses to the RFT have been received. These are:

i. Computer Power Group (CPG); with a number of Australian subcontractors (including Technology Australia and Telecom);

ii. Australia EDS (EDS) with PAXUS and Aspect as subcontractors; and

iii. IBM, with Andersen Consulting and BHP Information Technology (BHPIT) as subcontractors.

The next steps are:

i. completion of primary evaluation and shortlist endorsement by August 1990;

ii. source evaluation report and selection recommendations; and

iii. contract signature and ministerial announcement.

c. Estimated Completion Date as at 18 December 1989

Selection recommendation is expected by November 1990 and contract signature and ministerial announcement is expected in February 1991.

d. Estimated Completion Date as at 15 June 1990

No change to December 1989 forecast.

e. Activity Slippage

There has been no slippage against December 1989 forecast.

SUBPROJECT/ACTIVITY: Depot/Base Redevelopment/System Definition and Procurement Redevelopment (AUTOPROC)/System Definition

Explanation of the Activity

Following the 1987/88 Review of SSRP, the Depot/Base and AUTOPROC system definition activities were retraced to align with the new strategic direction of the project which, among other things, included the Commercial Application Software package strategy for SSRP and a review of mandatory supply functions.

Although the functional coverage of Depot/Base and Autoproc systems redevelopment is distinctly different, the approach to system definition is much the same with considerable collaborative effort and interaction. A combined response to question 3 is given here to avoid duplication.

The system definition is expected to provide a defined set of outputs that is concerned with advising the organisation with respect to the user objectives, requirements and benefits, the approach to development and delivery and whether the project should proceed to the next phase (ie design and programming) or some other approach be found. The outputs from system definition become the primary inputs to preliminary design sub phase which will be executed by the Prime Systems Integrator (PSI).

The outputs from the system definition will also form the basis on which funding submissions and project approvals will be sought and will define the scope for the application package customisation requirements. The package customisation definition will be undertaken by the Prime Systems Integrator.

a. Description

According to the Spectrum methodology, the system definition phase consists of four sub-phases: strategic proposal, new user requirements, system definition/analysis of alternatives and the advisability study as described in greater detail below:

i. the strategic proposal sets the strategic direction of the user redevelopment concept, identifies broad user requirement, and outlines project plan with indicative costs, benefits and risks;

ii. the analysis of new user requirement includes documentation of current systems including their deficiencies, user business objectives/critical success factors, and information and functional capability requirements;

iii. the alternatives analysed include functional scope for automation, various design options including those relating to technical infrastructure, development strategies and implementation/migration strategies. As a part of this analysis, more detailed cost benefit studies are also being undertaken. In addition, functional evaluation of application software packages is a major task undertaken by the Depot/Base and Autoproc project teams under this sub phase;

iv. the objective of the advisability study sub phase is to recommend, within the overall strategic direction decided for SSRP, cost effective, technically feasible, low risk strategies for the development of the systems. Key outputs of the advisability study are:

(a) organisational (eg organisational change, industrial consultation, training), technical and subject matter strategies for the development and implementation of systems;

(b) a benefits analysis report including schedule of outcomes; and

(c) project sizing and costings review incorporating the implementation of an appropriate network infrastructure and the update of the Defence FYDP.

b. Current Status

i. strategic proposal issued in September 1988

ii. Depot and Base current systems documentation completed for currently automated concurrent supply systems

iii. new user requirements document issued

iv. objectives and critical success factors developed

v. Autoproc benefits analysis report issued for review by the Services

vi. Depot and Base benefits analysis preliminary reports issued for review

vii. Functional evaluation of commercial application software package RFT completed in August 1989

viii. Preliminary design alternatives identified and issued for review

ix. Preliminary scope for automation for Inventory management and control and warehousing

x. Preliminary implementation/migration alternatives identified and issued for review

The work on the analysis of design and implementation alternatives and the development of advisability study has been underway in earnest since mid 1989. Specialist contractors with DESINE knowledge were engaged to assist with these tasks. Some of the sub-tasks are dependent on knowledge of the application software package and cannot be completed until it is selected.

The results of the Depot/Base system definition are required to support three major SSR goals.

(a) Guidance for the PSI shortlisted tenderers to assist them in revising their financial estimates as part of the Best And Final Offer (BAFO) process;

(b) To form the basis on which project approval and funding submissions will be sought; and

(c) To position the project for the commencement of the preliminary design phase by defining the standards, practices and procedures to be applied.

In line with these goals, the Depot/Base system definition and AUTOPROC system definition delivery has been aligned to satisfy these requirements from both a content and timing perspective. The initial release will provide the level of detail required to support the PSI BAFO process. The subsequent releases will be a refinement to incorporate the results of activities such as:

i. network rationalisation to minimise any duplication across Defence computing systems infrastructures (eg. concept of sharing terminals)

ii. completion of the detailed benefit analysis study

iii. revision of the functional scope for automation resulting from a greater software package awareness and direct input from the package vendor

iv. assessing and incorporating the detailed assessment of the impact of the Defence Supply Services Consultancy

Next steps are:

i. detailed analysis of alternative solutions for the Depot/Base computing network

ii. detailed analysis of development and implementation/migration strategies

iii. identification of preferred strategies and detailed sizing and costings

iv. provide required input to support the PSI BAFO process

v. network rationalisation and refinement of overall network strategies

vi. refine functional scope for automation

vii. finalisation of cost benefits reports

viii. prepare project funding submissions

ix. plan and undertake the activities to support a Depot/Base and AUTOPROC package pilot implementation

c. Estimated Completion Date as at 18 December 1989

The production of the advisability study report is expected to be completed for Departmental review by end May 1990 and Project Steering Committee (PSC) endorsement by end June 1990.

d. Estimated Completion Date as at 15 June 1990

It is now expected that the advisability study report will be available for PSC consideration by the end of October 1990.

e. Justification of Activity Slippage

The major limiting factor in completion of the advisability studies by the end of June 1990 was the delay in awarding a contract to the software vendor. Input from the software vendor was planned, from April 1990, in areas relating to:

- functional scope for automation
- data conversion
- implementation strategies and
- equipment capacity sizing

The slippage to October 1990 does not affect overall project schedules. However, any slippage past October will begin to impact on the PSI engagement.

SUBPROJECT/ACTIVITIES: Depot and Base Systems Redevelopment/Warehousing Local Area Network Working Prototype

Explanation of the Activity

The 1987/88 Review of SSRP resulted in the agreement to pursue a concept known as Warehousing Local Area Network working prototype as a part of Depot and Base System Redevelopment:

The objectives of the working prototype are as follows:

i. visible and tangible outputs that encourage meaningful feedback and early industrial consultation on the use of new technological systems in the warehouses;

ii. examination of complex technical solutions involving distributed data processing with the potential to reduce the capital cost associated with Depot and Base computing network; and

iii. understanding the design issues involved with a tri-Service common core warehousing system which can be adapted to warehouse operations of diverse sizes and complexities.

This activity was initiated in June 1988 as a major contribution to system definition and preliminary design activities.

a. Description

The Working Protoype is a prototype of the Issues and Receipts functionality designed to demonstrate the use of technological devices and system constructs that support process control requirements at selected sites.

Working Prototype was fielded at six sites in a manner that did not replace the current system operation but enabled the warehouse managers and operators to try out technological devices and new system constructs.

The Working Prototype is being used as the basis for the development of both the Tri-Service Product and its Operational Pilot.

b. Current Status

i. Prototype Fielding concluded October 1989

ii. Site Reports completed November 1989

iii. Equipment Performance Evaluation completed November 1989

iv. Prototype Consolidation completed November 1989

v. Prototype Consolidation Report issued December 1989

c. Estimated Completion Date as at 18 December 1989

The Working Prototype activity was completed in December 1989.

d. Estimated Completion Date as at 15 June 1990

The Working Prototype activity was completed in December 1989.

e. Justification of Activity Slippage

Not applicable

SUBPROJECT/ACTIVITY: Depot and Base Systems Redevelopment/ Warehousing/LAN Operational Pilot

Explanation of the Activity

The aim of the Operational Pilot encompasses two missions:

i. completion of the development and operational commissioning of the warehousing application using working prototype as the starting point and the evaluation of this system in the context of the full Depot and Base redevelopment, including the impact of the introduction of new technology devices in an operational environment; and

ii. provision of computing support to the new warehouse at Moorebank Logistic Group at Moorebank in Sydney as an interim solution pending the redevelopment of the Depot and Base System.

It has the following objectives:

i. to produce a Tri-Service warehousing technology application based on the working prototype (the Tri-Service Product);

ii. to verify the warehousing technology defined as part of the WLAN working prototype in a working environment and encourage early industrial consultation with respect to the final Depot and Base system;

iii. to provide the Branch and the Services' Users with conversion, organisation, implementation and training experience in the warehousing environment;

iv. to provide a pilot site for the demonstration, testing and refinement of user requirements for warehousing application functions; and

v. to verify the benefits of warehousing function automation in a working environment.

a. Description

The WLAN Operational Pilot is being approached in two main streams. The first involves the enhancement of the Working Prototype to create the WLAN Tri-Service Product. The second is the implementation of this system at Moorebank Logistic Group in Moorebank in Sydney. The implementation includes the provision of interfaces to existing Army Supply systems to maximise the efficiency of the system.

The two streams are being progressed concurrently.

b. Current Status

i. creation of the Tri-Service Product is underway

ii. construction of the Interfaces is underway

iii. implementation tasks, such as the preparation of a training strategy and definition of documentation being produced, have commenced.

c. Estimated Completion Date as at 18 December 1989

The implementation of the Operational Pilot will be completed by the end of June 1990.

d. Estimated Completion Date as at 15 June 1990

The implementation of the Operational Pilot will be completed by the end of the first week in September. Post implementation support, including review, will continue until mid October 1990.

e. Justification of Activity Slippage

The current schedule represents a slippage of two and half months, over the December schedule.

The main reasons for the slippage are the impact of staff turnover, delays in the engagement of contractors and an underestimation of the size and complexity of the task.

It should be noted that this slippage will not impact on the operational effectiveness of the new warehouse as the commissioning of that warehouse has slipped by a similar amount of time.

SUBPROJECT/ACTIVITY: Procurement Redevelopment/AUTOPROC Pilot

Explanation of the Activity

The AUTOPROC Pilot system aims to support preliminary design and development activities by, inter alia, providing an opportunity for users:

i. to assist with the development of specifications for package customisation using the pilot to perform "real" tasks;

ii. to experiment with job and procedures design;

iii. to gauge the implications of AUTOPROC for the regulatory and legal framework and vice versa;

iv. to accurately measure (and to plan for achieving) the manpower savings and other benefits to flow from production system implementation;

and for the PSI;

i. to trial technical options as part of the specification and design of the production environment;

ii. to better estimate network traffic and system load;

iii. to develop an understanding of the circumstances needed to justify various hardware allocations to work groups; and

iv. to train users in a "hands on" situation.

a. Description

The AUTOPROC Pilot will deliver office automation and procurement functionality to users located in Army Logistics Command (17 terminals) Air Force Headquarters Support Command (23 terminals) Melbourne, and/or RAAF Base Edinburgh SA. (2 terminals). The procurement functionality will consist of a "minimally tailored" version of the selected software package. (Note: Software packages are "customised" when their functionality is enhanced to satisfy user's requirements and "tailored" when changes are made to screen designs and data item description etc without affecting the underlying functionality).

b. Current Status

i. pilot sites/organisational groups selected

ii. hardware and office automation delivered and installed in sites in Melbourne

iii. design of the configuration complete.

iv. organisational/procedural arrangements needed to achieve aims of the pilot are being developed

c. Estimated completion date as at 18 December 1989

The AUTOPROC Pilot is expected to be fully operational by the end of November 1990.

d. Estimated Completion Date as at 15 June 1990.

The Autoproc Pilot is still expected to be operational by the end of November 1990.

e. Justification for Differences

There has been no slippage in estimated completion dates since Decemeber 1989.

SUBPROJECT/ACTIVITY: Facilities and Central Computing/ Acquisition of Computer Facilities

Explanation of the Activity

This activity is for the procurement of DESINE hardware and software to serve as the SSRP Development environment and for the provision of suitable accommodation to house the equipment. This equipment will be used for:

i. definition and preliminary design activities by:

- Depot and Base Redevelopment
- Procurement Redevelopment
- AUTOPROC and Depot/Base Pilots

ii. interfacing with the existing supply systems running on a UNISYS mainframe.

a. Description

Management of major computer facilities refurbishment and the planning, acquisition and installation of the initial mainframe to support development activities and interface between the DESINE and UNISYS computer environments.

b. Current Status

i. mainframe computer delivered, installed, acceptance tested and operational at Deakin Offices 5 April 1990

ii. restricted tender for the refurbishment of the computer facility at Russell Building H was issued in June 1990

Next steps are:

i. install programmable workstations and local area network at Campbell Park Offices enabling access to the mainframe.

ii. installation of communication lines to AUTOPROC sites in Melbourne.

iii. follow on activities associated with the refurbishment of Russell Building H computer facility.

iv. upgrade to the Deakin Uninteruptable Power Supply (UPS).

c. Estimated Completion Date as at 18 December 1989

i. programmable workstations installed and mainframe operational March 1990.

ii. the refurbishment at Russell building H is now planned to be completed in October 1990.

d. Estimated Completion Date as at 15 June 1990

i. programmable workstations installed and operational July 1990

ii. the refurbishment at Russell building H is now planned to be completed in December 1990.

iii. Deakin UPS minor works planned to be completed October 1990.

e. Justification for Slippage

i. Slippage in funds availability for programmable workstations (funds did not become available until late March 1990). This slippage did not effect overall Project schedules as availability of the software package had slipped by a similiar period (see B - 21)

ii. Russell building H refurbishment has slipped some 2 months due to greater than anticipated lead times in both consolidating the overall Departmental requirement for central computer facilities and processing of the documentation by the Australian Construction Services. The slippage has no impact on the overall project schedule.

SUBPROJECT: Enhancements to Current Executive Systems

Explanation of the Activity

Several Current Executive Level systems on the existing UNISYS equipment are being enhanced in order to provide the substantial benefits flowing from implementing these Enhancements. Current activity in this area concerns the provision of On Line Enquiry/On Line Update (OLE/OLU) capability and the updating of systems that provide inventory catalogue information (CENCAT/SUPDAT LINK).

OLE/OLU

a. Description

The OLE/OLU enhancement includes the provision of hardware, software and facilities to enable the following:

i. OLE: allows real time visibility of data held on the Executive systems; and

ii. OLU: provides real time entry of transactions to update the Executive systems (Note that where the Executive system is a Batch system, this does not imply real time database update. Transactions are held for the Batch system to process after they have been entered).

b. Current Status

i. The OLE/OLU enhancement was completed on 2 April 1990.

c. Estimated Completion Date as at 18 December 1989

Complete installation of the OLE/OLU project facility is expected by 4 April 1990.

d. Estimated Completion Date as at 15 June 1990

The OLE/OLU enhancement was completed on 2 April 1990.

e. Justification of Activity Slippage

There has been no slippage against the December estimate.

CENCAT/SUPDAT LINK

a. Description

The CENCAT/SUPDAT LINK enhancement project is for the provision of software to link the Central Catalogue (CENCAT) system with the catalogue component of the Army Executive system (the Army Executive system was implemented before the tri-Service CENCAT system, and so retained its own Catalogue subsystem (SUPDAT).

b. Current Status

i. System design is complete

ii. Programming/Testing is ongoing

Next steps are:

i. Progressive completion of Programming/Testing/ User testing

ii. Implementation

c. Estimated Completion Date as at 18 December 1989

September 1990

d. Estimated Completion Date as at 15 June 1990

The CENCAT/SUPDAT Link enhancement is proceeding as planned and is expected to be completed by September 1990.

e. Justification of Activity Slippage

There has been no slippage against the December schedule.

SUBPROJECT: Army Unit System (AUTOQ)

Explanation of the Activity

Although the requirement for computer support for Army units had been endorsed as within the scope of the Depot/Base redevelopment project, a system for Army units would not have become available until after the main Depot/Base system was developed. The Logistics Branch in Army had already embarked on a project to develop a stores accounting system for Army unit Quartermaster (Q) stores, known as AUTOQ. The 1987/88 Review of SSR recommended that the AUTOQ system developed by Army be adopted as the solution to meet the requirement which existed under SSRP, and that the project should proceed, with SSRP funding, to full development and implementation under Army's management. The 1987/88 Review further recommended that project management should be responsive to SSRP standards and guidance.

a. Description

AUTOQ is a computer based quartermaster stores management system which will run on desk top computers to be implemented in nearly 400 Army units. The system is self contained and will provide the full functionality of the manual system on which it has been based.

b. Current Status

i. Implementation has commenced in 3rd and 4th Military Districts. The Bandiana Military area within 3rd Military District is nearing completion after which the emphasis in that Military District will turn to metropolitan Melbourne and Puckapunyal.

Next steps are:

i. Continue implementation in 3rd and 4th Military Districts and commence implementation in 1st Military District in September 1990.

c. Estimated Completion Date as at 18 December 1989

June 1993 (providing further slippage due to lack of funding does not occur).

d. Estimated Completion Date as at 15 June 1990

June 1993 (providing further slippage due to lack of funding does not occur).

e. Justification of Slippage

There has been no slippage in estimated completion dates since December 1989.

ACTIVITY: SLIMS

Explanation of the Activity

As part of the Auxiliary Oiler Replenishment (AOR) project, Navy has been developing SLIMS as an integrated shipboard logistics system covering supply, engineering and configuration management. The 1987/88 Review of SSRP recommended that the SLIMS system be adopted to meet the SSRP requirement to develop shipboard systems both as a means of bringing forward benefits and ensuring that, where possible, compatability is achieved with other supply systems. The project continues to be managed by Navy with funding provided by SSRP; SLIMS project management is responsive to SSRP standards and guidance.

a. Description

The SLIMS system, in total, will provide an integrated logistic system for supply and maintenance for 21 major Navy platforms and 35 tenders. Primary supply functions which will be supported include requirements determination, purchasing and stock control.

b. Current Status

i. Approval for implementation to proceed granted in August 1989.

ii. Installation of training system at HMAS CERBERUS June 1990

Next steps are:

i. Installation of Data Interchange Point network planned for July 1990

ii. Installation of first Ship fit is scheduled for February 1991.

c. Estimated Completion Date as at 18 December 1989

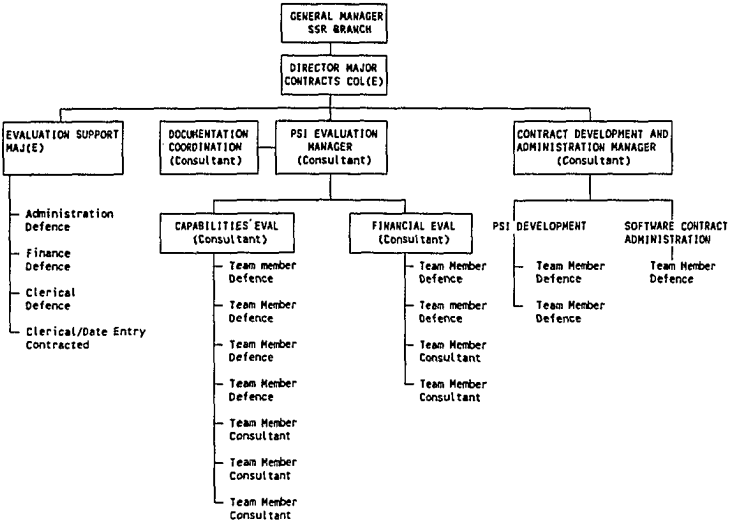
Complete installation of the SLIMS system is planned by December 1994.

d. Estimated Completion Date as at 15 June 1990

Complete installation of the SLIMS system is planned by July 1995.

e. Justification of Slippage

Completion of installation has slipped some six months since December 1989, due to a slippage in funds availability (funds for SLIMS did not become available until end March 1990) and transfer of some key personnel to other duties.


GENERAL MANAGER SSR BRANCH
DIRECTOR MAJOR CONTRACTS COL(E)
EVALUATION SUPPORT MAJ(E)
DOCUMENTATION COORDINATION (Consultant)
PSI EVALUATION MANAGER (Consultant)
CONTRACT DEVELOPMENT AND ADMINISTRATION MANAGER (Consultant)
Administration Defence
Finance Defence
Clerical Defence
Clerical/Date Entry Contracted
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PSI DEVELOPMENT
Team Member Defence
Team Member Defence
SOFTWARE CONTRACT ADMINISTRATION
Team Member Defence

DEPARTMENT OF DEFENCE

RUSSELL OFFICES
CANBERRA, A.C.T. 2600

IG 0663/91
IG 88/43542

IN REPLY QUOTE:

9 July 1991

The Secretary
Joint Committee of Public Accounts
Parliament House
CANBERRA ACT 2600

Attention: Mr T. Rowe

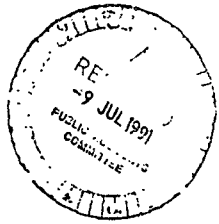
JOINT COMMITTEE OF PUBLIC ACCOUNTS (JCPA) - INQUIRY INTO DEPARTMENT OF DEFENCE COMPUTER REDEVELOPMENT PROGRAM - SSRP

1. I refer to your letter of 14 June 1991 requesting information on the progress of the Computer Redevelopment Program.

2. The information required by the Committee is contained in the enclosed Annexes as follows:

- Annex A - SSRP Progress August '90 - June '91;
- Annex B - Prime Systems Integrator;
- Annex C - Implications of the Force Structure Review and Commercial Support Programs for SSRP.

F.R. HARVEY
Inspector-General



ANNEX A

SSRP PROGRESS

AUGUST 90 - JUNE 91

1. This paper provides a report of the significant events applicable to the progress of SSRP since the last public hearing by the Joint Committee of Public Accounts into SSRP (held August 1990) and those events anticipated to occur in the remaining part of this year. The report addresses the following elements of SSRP:

a. The Standard Defence Supply System (SDSS) ie, the elements previously known as AUTOPROC and Depot/Base which have been combined into a single element, the SDSS;

b. the "SLIMS" system for Navy ships;

c. the "AUTOQ" system for Army Quartermaster stores;

d. Enhancements to the Services Executive level systems.

SDSS

2. Since August 1990, work on the SDSS has focused on establishing a sound platform from which the project can rapidly move to the development and implementation phase. Maintenance of the current project momentum is essential, not only for the achievement of benefits resulting directly from the SDSS, but also because of the close linkage of the SDSS with other major Departmental initiatives, in particular the Warehousing Strategy of the Defence Logistics Redevelopment Project (DLRP) and the Financial Systems Redevelopment Project (FSRP). Accordingly, activity has concentrated on:

a. installation of the MIMS software package on the SSRP development computer and testing of the package;

b. acquisition and installation of equipment for production pilot trials, particularly at the Service Logistics Commands in Melbourne and RAAF Base Fairbairn;

c. completion of the evaluation of tenders and finalisation of a contract for a Prime Systems Integrator (PSI) to manage the SDSS development and implementation; and

d. finalisation of SDSS system definition studies and seeking Departmental endorsement for the further progression of the SDSS (subject to Government approval).

3. Software Package. Following the award of the commercial software package contract to MINCOM Pty Ltd in July 1990 a plan, identifying all the key activities requiring MINCOM support, was developed over the period August to November 1990. The MIMS package was installed on the SSRP development computer for acceptance testing and in preparation for the conduct of a series of pilot production trials to confirm the package's potential. Functional testing was completed in November 90 and performance tests were conducted over the period November to June 1991.

4. Pilot Production Trials. In order to assess the functionality of the MIMS package, a number of pilot production trials are planned for implementation during 1991. Initially, trials are being undertaken in specific elements of RAAF and Army Logistic Commands in Melbourne and RAAF Base Fairbairn. In preparation for these pilots, a number of activities have been undertaken, including:

a. essential customisation of the MIMS package;

b. development of User guides and procedures;

c. development of global data bases for the systems including the conversion and load of data from the current systems to the MIMS package;

d. development of interfaces, to both supply and non supply systems;

e. establishment of agreements with other major projects in relation to network rationalisation; and

f. equipment acquisition and installation.

5. The Melbourne pilots commenced operation in June 91 with Fairbairn planned to commence in July/August 91. A more extensive production trial, involving extending the pilot system throughout Air Force Logistic Command and timed to coincide with the planned wider implementation of FSRP's DEFMIS system, is planned to commence in late 1991. The specification for the interface between SDSS and DEFMIS has been developed by MINCOM and Dun and Bradstreet (the vendor of the DEFMIS package) and is currently being reviewed by the Department. Additionally, and recognising the experience gained by the Services with DEFMIS, particularly at Adelaide Logistics Battalion and RAAF Base Edinburgh, it is proposed also to trial the AUTOPROC functionality of MIMS interfaced to DEFMIS, in support of local purchasing activities at these two sites commencing in November 1991. It is considered that the experience gained at those sites could be of particular value in easing subsequent implementations of SDSS/DEFMIS.

6. A production trial to support tri-Service requirements at the Depot level is planned to be implemented at Moorebank Logistic Group (MLG) in November 1991. The SDSS is a pre-requisite for tri-Service warehousing at the planned Defence National Storage and Distribution Centre (DNSDC) to be established under DLRP and the aim of the production trial is to ensure that the full production facilities of the SDSS are available and bedded down prior to the commissioning of the DNSDC in January 1994. Finally, a further production trial, to support tri-Service requirements for slow moving bulk stores items at the Depot level is to be implemented at RAAF Stores Depot Detachment, Dubbo, commencing around the same time as the Moorebank pilot.

7. In conclusion, in establishing the agenda for SDSS production trials, the Department has been concerned to address not only the project specific objectives of the trials, but also to ensure that the strategy provides the potential to reduce the risks of delays that might otherwise occur in the project's implementation strategy and which would pose substantial and costly risks to the achievement of wider Defence Corporate strategies.

8. Prime Systems Integrator (PSI) Contract. Offers from the three tenderers for the PSI contract were evaluated by the Department following a Best and Final Offer process conducted during October/November 1990. Award of the contract to Computer Power Group was approved in June 1991.

9. The PSI has been engaged, under a two stage contract, to manage the design and implementation of the SDSS. Initially, Computer Power have been awarded a $9M contract to complete the first stage, which is to carry out the pilot production trials and to prepare a preliminary design and detailed plans and recommendations on the most effective way to proceed to full scale implementation. Stage 1 is planned to run for ten months. Should the Department decide to proceed with Computer Power's recommended strategy, Computer Power will provide in Stage 2, integration services worth $28M over five years to install a DESINE based network and the MIMS system throughout Defence's Logistics Support Commands, Supply Depots and Bases.

10. Under the PSI arrangements, SSR management remains responsible for the overall achievement of the SSR Project objectives. The Assistant Chief of the Defence Force for Logistics is the Project Authority and the Design Approval Authority. The PSI (ie Computer Power) Project Director will be the Design Authority responsible for recommending solutions that will result in the achievement of those SSR Project objectives which relate to the SDSS element of SSRP and will be required to work with SSR management as part of the total management team. Further information on the PSI contract as at Annex B.

11. The major milestones for the preliminary design stage of SDSS, which is to be undertaken by the PSI, are:

Completion of General Systems Design	October 1991
Completion of development of SDSS/DEFMIS interface	November 1991
Extension of pilot trials of the MIMS software	November 1991
Completion of Preliminary Design of Technical Infrastructure	December 1991
Updated statement of costs and benefits	January 1992
Completion of site preparation/ computer installation plans for Stage 2	February 1992
Completion of network operations management plan for Stage 2	February 1992
Completion of preliminary design of interfaces between SDSS and other Defence Systems	March 1992
Finalisation of customisation requirements for the MIMS software for Stage 2 implementation	March 1992
Completion of Documentation Plans for Stage 2	March 1992
Completion of Training Plans for Stage 2	March 1992
End of Preliminary Design activities and PSI Stage 1 contract	April 1992

12. SDSS System Definition Studies. System definition studies for the AUTOPROC and Depot/Base elements were completed in March 1991. Those studies confirmed that the distinction between the AUTOPROC and Depot/Base systems, while appropriate during the initial Definition Stage of the project, is unnecessary and artifical for subsequent development and implementation activities. The two elements have been combined into the single system, the SDSS.

13. The system definition studies provide within the overall strategic direction decided for SSRP, for a cost effective, technically low risk strategy for the development and implementation of the SDSS and provide a benchmark against which the PSI's plans and technical solutions can be measured by the Department.

14. The system definition studies also incorporate a detailed re-examination of the cost benefit case for the SDSS. The studies have confirmed the viability of the development approach and significant increases in potential benefits have been identified and agreed by the Services. Costs to complete the project have firmed, particularly with the issue of the contracts to MINCOM and Computer Power Group (because of the work undertaken to date, it was possible to arrange the PSI contract for Stage 1 on a firm price basis while Stage 2 will be on a fixed price basis). Overall, there has been both a significant real increase in benefits and a reduction in costs for the SDSS compared with those identified for AUTOPROC and Depot/Base in the Acquisition Council Report of 1989. In summary, the variations are:

$M (1990 prices)

	Acquisition Council Report 1989	Now
Capital Costs	162.2	148.8
Staff Costs	45.3	54.7
Recurring Costs	81.8	73.3
Total Costs	289.3	276.8
Benefits:		
Staff Reductions/ Productivity Increases	72.1	202.6
Inventory Reductions	48.3	45.3
Indirect	43.9	46.5
Total Benefits	164.3	294.4
Nett Benefits	-125.0	+17.6

It should be noted that the SDSS cost/benefit case includes adjustments for the impact of the savings proposals of the Defence Logistics Redevelopment Project, including the closures of depots under the DNSDC initiative.

15. These outcomes have been reviewed and endorsed within Defence and the Department has agreed to seek Government approval for the next phase of the SDSS (ie development and implementation of the system) in the context of the 1991-92 Budget. Department of Finance agreement to revised Schedules of Outcomes for SSRP (and, in particular the SDSS) is being sought as a pre-requisite to Government approval. This is consistent with the decision of the 1989 ADP Acquisition Council for SSRP which agreed that, provided that there was no significant change in the scope of the project, or an adverse revision of the cost/benefit case, it would not be necessary for the Council to reconsider the project prior to later phases proceeding; however, the Summary Schedules of Outcomes and Financial Impact Statements for the various elements of SSRP, and for SSRP as a whole, would need to be updated and agreed with the Department of Finance prior to proceeding to development and implementation of the remaining major systems. The revised Schedules of Outcomes are currently being negotiated with the Department of Finance and, to date, no major difficulties have been encountered. The Department has agreed that before the implementation of the next stage actually proceeds, a submission will be provided to the Minister for Defence addressing, inter alia, the implications for the project flowing from the recently announced Force Structure Review and Commercial Support Programs. These are discussed further at Annex C.

SLIMS

16. Good progress has been maintained against the SLIMS schedule and SLIMS equipment to support the initial supply module was installed in shore supporting agencies Program Manager Ship Systems (PMSS), Manager Current Logistics Systems (MCLS), Navy Supply Centre (NSC) Zetland, Fleet Maintenance Management Office (FMMO) throughout the period August 1990 to the present. Installations at HMA Ships Stirling and Coonawarra and the Maritime Headquarters, scheduled to be finalised in November/December 1991, will complete the shore program. The equipment required to support the SLIMS training program was installed at HMAS Cerberus in April of this year and, at the same time, temporary implementations have been provided to Ships Inventory Review (Maribyrnong), HMAS Hobart and the Combat Data Systems Centre for database development and live trial purposes.

17. An updated release of the SLIMS Supply module has been completed and preliminary test results accepted. The first live sea trial is scheduled for HMAS Flinders in July 1991. Equipment is currently being delivered to support the implementation of the Supply Module in a further three major fleet units and seven tenders before the end of 1991. Supply Module implementations are scheduled to extend into 1994 as ship availability and the equipment and maintenance management module integration permits. The data interchange point (DIP) hardware was installed at the MCLS site in Tuggeranong in November of 1990 and a substantially more advanced version of the control software has now been tested and accepted.

18. The SLIMS Equipment Management and Engineering Maintenance Modules have been delivered and the testing program is 80% complete. The integration and testing of these modules is expected to be complete by 31 August 1991 and will support a consultancy based analysis and specification project commencing in September 1991. This one month consultancy will establish the basis for the final SLIMS programming task; that of producing a completely integrated Supply, Equipment and Maintenance management system. The coding and testing of this task is expected to complete by June 1992. The backfit of the fully integrated SLIMS has been scheduled to mesh with the Supply Module implementation and will be completed in approximately the same time frames.

AUTOQ

19. In September 90, implementation of AUTOQ in units throughout South Australia was completed. The Victorian region was completed in March 91. Implementations in the North and South Queensland areas also commenced in March 91, while implementations in Western Australia were initiated in April 91. Implementations in all these regions should be concluded by October 91.

20. FY 1991/92 will see the system introduced into NSW units and, subject to funds availability, it is planned to implement AUTOQ in Tasmania and the Northern Territory in November 91. This will finalise implementation of AUTOQ across Army. Upgrading and system enhancements will then commence.

ENHANCEMENTS

21. The Enhancements element of SSRP, which comprises major improvements to the Services current Executive level systems, has maintained good progress with six of the Enhancements now substantially completed. They are:

a. Air Force Disposals - completed.

b. On Line Enquiry/On Line Update (applicable to all Services) - completed.

c. Army CENCAT/SUPDAT Link (improvement to the Army supply catalogue) - substantially completed and will be finalised August 91.

d. Navy Disposals - completed.

e. Army Central/Depot Link - completed.

f. Navy Asset Visibility - Stage 1 is currently being implemented with Stage 2 to be completed later this year.

22. The remaining enhancements with significant further work are:

a. Army Disposals - to be completed Dec 91.

b. Army Requirements Determination - to be completed Jun 92.

c. Navy Requirements Determination - to be completed Jun 93.

23. The seven enhancements which have progressed past the preliminary design stage have the potential to provide benefits in excess of $200M (Dec 90 prices) over the next 8 years in the areas of improved manpower productivity, reduced inventory costs, cataloguing and data processing operations. The Services have agreed those benefits and acknowledged potential productivity gains of some 228 manyears of effort per year accruing from certain of those enhancements. Benefits from the Enhancements element are already accruing to Defence at the rate of $11.7 million per annum, rising to $23.0 million in 1991/92.

PRIME SYSTEMS INTEGRATOR

1. SSRP extends well beyond traditional systems development activity as it has to provide a new computing network infrastructure under the DESINE concept to support the ADF's supply operations. In this sense the project has not only to develop software solutions, but also to ensure that the necessary hardware and system software are installed and in operation, ensure the appropriate facilities elements are in place, establish communications networks, conduct appropriate tests and evaluations prior to putting the systems into use and plan for the adequate training of staff who would use the system. There is a need to reduce the risks in co-ordinating and managing a project as large and as complex as SSRP to avoid delays and cost overruns.

2. The largest single undertaking within SSRP is the development and implementation of the Standard Defence Supply System SDSS. The work involved in this element of SSRP encompasses all of the activities referred to above. Under the Prime Systems Integrator (PSI) arrangement, SSR management will be responsible for the overall achievement of the entire SSR Project objectives. The Assistant Chief of the Defence Force for Logistics is the Project Authority and the Design Approval Authority. The PSI will be the Design Authority responsible for recommending solutions that will result in the achievement of those project objectives which relate to the development of the SDSS. The PSI will be required to work with SSR Branch Management as part of the total management team. The PSI's activities will be undertaken under a two stage contract as follows:

a. Stage 1 will comprise the conduct of pilot production trials of the MIMS software and the preparation of a preliminary design and detailed plans and recommendations on the most effective way to proceed to full scale implementation.

b. Stage 2 will comprise those activities which result in the development and implementation of the system.

Stage 1 will take 10 months and Stage 2 is expected to take 5.5 years

PSI Framework for Development

3. PSI project activities for the duration of the contract and hence the key contract deliverables, have been organised and defined within a framework consisting of 22 individual work plans. An outline of these plans is provided at Appendix 1 to this Annex.

4. Within this broad framework, a contract work breakdown structure has been developed to enable the complete definition of the scope of the work and the contract deliverables.

5. The contract work breakdown structure provides the traceability between all elements of the PSI's project management framework in terms of providing the means to correlate schedule, resources and prices to all PSI activities and their associated contract deliverables.

PSI Management Framework

6. **Methodologies/Standards.** The PSI will use its own project management/life cycle system development methodology. CPG plans to use its Technology for the Delivery of Software and Services (TDSS) product which represents project management methodologies and practices which have been proven over many years. CPG has a contractual requirement to provide solutions which are compliant with:

a. the Commonwealth Government's policy on open systems (GOSIP) that becomes operational on 1 August 1991; and

b. Defence Corporate Standards as updated from time to time.

CPG also have a contractual requirement to undertake project activities and provide contract deliverables consistent with the following quality standards:

a. AS3563 - 1988 Software Quality Management System; and

b. AS3901 - Quality Systems for Design/Development, Production, Installation and Services.

7. **Contract Management.** The PSI contract includes a PSI Project Plan and agreed contract deliverables. Contractual requirements include a contract work breakdown structure, master program schedule, intermediate program schedule, critical path network, cost reporting system, problem management and risk management reporting systems and a quality assurance management system. Formal monthly contract progress meetings are to be held, chaired by ACLOG or his representative. CPG is required to provide for these meetings contract status reports, a statement of contract deliverables that require approval by the Design Approval Authority, an updated master program schedule and intermediate program schedule, and an updated critical path network. The contract status report is to include, inter alia, an Executive Progress Summary covering technical, financial and contractual aspects, and advise on perceived high risk areas.

PSI - FRAMEWORK FOR DEVELOPMENT OF PROJECT DELIVERABLES

The PSI has been required to develop a PSI Project Plan which provides for the PSI activities to be undertaken, and the contract deliverables produced, within the following agreed work plans.

Applications Development Concept Plan	Covers the applications development concepts, approach, principles, methods, standards etc to be used to ensure the successful development and implementation of the SDSS.
General System Design Plan	Includes the general system design of both the applications software and the supporting technical infrastructure. It provides the architectural basis for the preliminary design.
Data Base Development Plan	Covers the design and establishment of the SDSS data bases as required during Stage 1 and Stage 2.
Data Administration Plan	Includes the data administration and library management procedures and the provision of relevant services.
Applications Installation Management Plan	Details the approach to planning and undertaking applications software installation for each site.
Package Customisation Plan	Covers the approach to producing the definition of customisation and to undertaking the customisation of the MIMS software. The approach is essentially one of minimal customisation.
Package Conversion Plan	Provides for the conversion of the MIMS software to Micro or Unix environment if required.

Equipment and Network Design Plan	Includes consideration of equipment and network requirements by site, redundancy and back up arrangements, wide area network and local area network requirements and network and system management requirements.
Network Operations Management Plan	Includes network operations management policies, strategies, standards and procedures to be implemented during Stage 2.
Site Preparation/Computer Installation Plan	Covers the preparation of sites and the acquisition and installation of computer equipment for the SDSS.
Integration Strategy and Implementation Plan	Provides the overall strategy and schedule for the implementation of the SDSS and the overall migration to the redeveloped system at each site.
Interfaces Development Plan	Addresses the specification, design, development and implementation for interfaces between SDSS and existing supply systems and also for finance, maintenance, movement and transport systems, etc.
Support Plan	Provides for support of the SDSS by the PSI prior to acceptance and handover for LCC managed maintenance.
Configuration Management Plan	Defines and establishes the standards, procedures for the registration and change management of hardware, software, etc.
Organisational Change Impact Plan	Produces a plan for handling the impact of organisational change as a result of the implementation of the SDSS.

Cost Benefit Analysis Plan	Provides for updated reports of the costs and benefits of the development and implementation of SDSS.
Operational Pilots Plan	Covers the establishment and monitoring of the pilot trials to demonstrate MIMS functionality, assess the impact of SDSS on ADF supply business practices and evaluate the extent of customisation required.
Data Conversion Plan	Delivers converted data from the current processing environment to the platforms for the SDSS.
Training Plan	Provides for the training of all Defence personnel involved in, or affected by, the implementation of the SDSS.
Documentation Plan	Includes the development and control of relevant documentation required for systems development and maintenance purposes and for user training and support.
Maintenance Plan	Recommends policies, standards, procedures and management arrangements for the SDSS once it is implemented.
Acceptance Test Plan	Details the scope of the work, the approach to its conduct, and the tasks to be carried out in relation to acceptance testing.

ANNEX C

IMPLICATIONS OF THE

FORCE STRUCTURE REVIEW AND

COMMERCIAL SUPPORT PROGRAMS

FOR SSRP

1. SSRP has been structured around the present force-in-being, and adjusted only for the rationalisation proposed under the Defence Logistics Redevelopment Project (DLRP). This could not be otherwise at this stage. It is reasonably clear, however that the acceptance by Government of the Force Structure Review recommendations will have some impact on the number of SDSS implementation sites (approximately 80 depots and bases are currently proposed as implementation sites) and may also have consequences for SLIMS (to be implemented on 21 major and 35 minor platforms) and AUTOQ (to be implemented at some 360 Army units).

2. In regard to the SDSS, some of the more significant proposals of the Force Structure Review include the closure of Navy bases HMAS Platypus and Nirimba and a review of the use of RAAF Base Fairbairn in the mid 1990's. Other proposals which may impact on the SDSS are further developments of RAAF Bases Tindal, Curtin, Townsville, Darwin, Pearce and Learmonth and the construction of RAAF Base Scherger, all of which will rely on SDSS systems for efficient and effective support. It is too early to quantify the impact that these proposals may have on the SDSS costs and benefits.

3. It is also too early to fully assess the implications of the proposed Commercial Support Program (flowing from the recommendations of the Wrigley Report and Force Structure Review) for SSRP. In the near term these proposals are not expected to have a significant impact, but the longer term impacts may be considerable. In the event that warehousing and supply management functions are contracted out, it is possible that provision of the management system would also be the responsibility of the contractor for those activities which are contracted out. Alternatively, the Commonwealth could sub license or lease that element of the SDSS used to support functions contracted out, or provide it as Government Furnished Equipment. Regardless of which direction is eventually pursued, the requirement for overall management of the Defence inventory, including nationwide asset visibility and the implementation of ADF stock holding policies, will require the functionality of the SDSS.

4. Nevertheless, there is some risk that the current estimated requirements for the implementation of the SDSS exceed Defence's longer term needs. Deferring implementation until this risk is eliminated has the consequence of deferring the realisation of benefits and increasing project management costs. As the contract for Stage 2 of the PSI engagement is not expected to be awarded until March 1992 there is time to review the implications before final commitment. Accordingly, the Department will forward a submission to the Minister of Defence, addressing these issues, prior to the commencement of Stage 2 of the PSI contract and the next phase of the SDSS.

AUSTRALIA

DEPARTMENT OF DEFENCE

IG 0444/92

PO Box E33
Queen Victoria Terrace
Canberra ACT 2600

23 April 1992

Mr Trevor Rowe
Secretary
Joint Committee of Public Accounts
Parliament House
CANBERRA ACT

INQUIRY INTO SSRP/DESINE

Reference:
A. JCPA Minute of 1 April 1992

1. An interim response was forwarded to you on 10 April 1992 covering points 2, 8 and 9 of Reference A. Responses relating to points 1-4, 6 and 7 which directly relate to SSRP have now been finalised and are attached.

F.R. HARVEY
Inspector-General

QUESTION 1

[Provide] a copy of the most recent cost-benefit analysis of the total Supply Systems Redevelopment Project (SSRP).

RESPONSE

Attached are the endorsed Financial Impact Statements relating to SSRP as a whole and the various sub-projects of SSRP. These statements represent the latest cost/benefit position of SSRP, consistent with the Force Structure Policy and Planning Committee's consideration of the SSRP in June 1991.

In summary, the previously endorsed costs and benefits of the total SSRP, in Dec 90 prices, and covering the period to 2001, are:

	$Million
. Costs, including capital, manpower and recurring costs.	438.3
. Financial benefits, resulting from personnel reductions, a contraction in the size of the ADF inventory, and the generation of additional receipts through the sale of surplus/obsolete stock.	699.7
. Net benefits.	261.4

Proposed Operation: SUPPLY SYSTEM REDEVELOPMENT
Date Prepared: 26/09/92
PRICE BASIS: DEC 1992

SUMMARY
FINANCIAL IMPACT STATEMENT ($M)

DIRECT FINANCIAL BENEFITS	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97	97/98	98/99	99/00 (1)	00/01 (1)	TOTAL (1)
A) Manpower			1.234	5.273	16.930	26.916	32.036	34.052	34.447	34.447	20.890	20.890	226.811
B) Cost savings by minimising stockholdings of obsolete and surplus stock (through an automated disposals system)	3.700	2.620	10.380	26.002	27.950	21.447	16.986						108.786
C) Cost savings through overall inventory reductions (through improvements in the ordering and forecasting system - reduced supply margins, shorter provisioning cycles)				0.440	8.595	15.332	15.345	4.244					43.956
D) Reduced Consumables	0.910	1.650	1.870	1.870	2.642	2.642	2.642	2.470	2.470	2.470	0.600	0.600	22.836
TOTAL DIRECT FINANCIAL BENEFITS	4.610	4.270	13.484	33.585	55.817	66.337	66.715	40.766	36.917	36.917	21.490	21.490	402.388
NET PRESENT VALUE	5.076	4.270	12.258	27.786	41.696	45.309	41.425	23.071	18.644	17.222	9.712	8.283	254.805
INDIRECT FINANCIAL BENEFITS													
A) Manpower	2.301	5.866	9.669	10.380	12.650	15.180	17.130	18.480	18.240	17.910	7.530	7.530	143.866
B) Reductions in inventory holding costs:													
1.) Sales of obsolete stock		0.850	1.170	3.080	7.965	13.256	17.376	20.531	20.531	20.531	3.556	3.556	112.413
2.) Overall inventory reductions and reduced consumables					0.080	1.613	4.803	7.799	8.682	8.794	4.615	4.727	41.303
TOTAL INDIRECT FINANCIAL BENEFITS	2.301	7.516	10.839	13.470	20.695	30.049	39.309	46.809	47.453	47.235	15.701	15.813	297.581
NET PRESENT VALUE	2.531	7.516	9.854	11.132	15.548	20.660	24.406	26.417	24.351	22.035	6.659	6.097	177.201
TOTAL FINANCIAL BENEFITS	6.911	11.786	24.323	47.055	76.512	96.386	106.024	87.566	84.370	84.152	37.191	37.303	699.770
NET PRESENT VALUE	7.607	11.786	22.112	38.888	57.485	65.970	65.833	49.429	43.295	39.258	15.773	14.380	431.817
Manpower Numbers by year (including productivity gains)	79.000	187.000	256.000	370.000	587.634	839.460	939.130	955.290	955.290	955.290	527.290	527.290	955.290
DIRECT FINANCIAL COSTS													
a) MANPOWER (2)	46.480	9.620	7.330	9.210	5.620	6.530	7.140	5.350	2.620				99.900
b) RECURRING (3)	1.730	0.832	2.143	4.586	6.038	7.916	9.311	11.329	12.103	13.735	12.447	12.535	94.705
c) CAPITAL	21.601	9.197											30.798
CONSULTANTS/CONTRACTORS			13.318	10.911	4.247	4.746	6.196	13.670	5.423				58.511
COMPUTER/DEVICES			13.198	22.520	7.343	12.249	4.511		34.241				94.062
SOFTWARE			3.397	7.362	1.168	1.866	0.524		0.510				14.825
COMMS/FURN/FACILITIES			3.047	2.767	1.514	1.213	0.844		9.613				18.998
ADMINISTRATION (4)			0.522	1.075	0.476	0.367	0.186	0.199	0.116				2.941
TOTAL DIRECT FINANCIAL COSTS	69.811	19.649	42.955	58.431	26.404	34.887	28.712	30.548	64.626	13.735	12.447	12.535	414.740
NET PRESENT VALUE	79.781	19.649	39.050	48.290	19.838	23.828	17.828	17.244	33.163	6.457	5.276	4.833	315.110
INDIRECT FINANCIAL COSTS													
a) CENTRAL FACILITIES (PHASE 1A)	0.024	2.770	0.765										3.559
b) SECURE PROCESSING ENVIRONMENT (PHS) CONTRACTORS						1.502							1.502
COMPUTERS/DEVICES						0.834	1.228	0.967	0.097	0.097			3.223
SOFTWARE						0.214	0.641	0.415	0.039	0.039			1.348
COMMS/FURN/FACILITIES						0.262	0.302	0.195	0.019	0.019			0.797
ADMINISTRATION						0.002	0.026	0.019	0.002	0.002			0.051
c) DEVELOPMENT ENVIRONMENT (PHASE 7)	8.115	2.251											10.366
CONSULTANTS/CONTRACTORS			0.184										0.184
COMPUTERS/DEVICES			1.782										1.782
SOFTWARE			0.504										0.504
			0.233										0.233
d) SOFTWARE PACKAGE CONVERSION AND CUSTOMIZATION (PHASE 2a) S/WARE													
TOTAL INDIRECT COSTS	8.139	5.021	3.458			2.814	2.197	1.595	0.157	0.157			23.541
NET PRESENT VALUE	8.953	5.021	3.201			1.922	1.364	0.901	0.081	0.073			21.516
TOTAL FINANCIAL COSTS	77.950	24.670	46.413	58.431	26.404	37.701	30.909	32.144	64.783	13.892	12.447	12.535	438.281
NET PRESENT VALUE	88.734	24.670	42.203	48.290	19.838	25.750	19.192	18.144	33.244	6.481	5.276	4.833	336.655
NET BENEFITS	71.036	12.884	22.100	11.376	50.108	58.685	75.115	55.422	19.587	70.260	24.744	24.768	261.107
NET PRESENT VALUE - NET	81.132	12.884	20.091	9.403	37.647	40.219	46.641	31.284	10.051	32.777	10.494	9.549	99.161

Notes: 1) Excludes costs and benefits for ENHSLMS and AUTOO for 98/99 onwards for which the 10 year cycle ends 98/99

2) Manpower includes Project Technical Support, Administration and Service User Groups

3) Recurring includes Consumables, Maintenance and Annual line rental charges

4) Administration includes Travel, Training and Freight.

Net Present Value Percentage: 0.10

STANDARD SUPPLY SYSTEM
FINANCIAL IMPACT STATEMENT ($M)

DIRECT FINANCIAL BENEFITS	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01	TOTAL
A) Manpower				2.054	10.231	15.400	18.482	20.495	20.890	20.890	20.890	20.890	150.222
B) Cost savings by minimising stockholdings of obsolete and surplus stock (through an automated disposals system)				1.740	5.240	6.100	6.100						19.180
C) Cost savings through overall inventory reductions (through improvements in the ordering and forcasting system - reduced supply margins, shorter provisioning cycles)					3.845	5.002	8.845	3.244					20.776
D) Reduced Consumables					0.772	0.772	0.772	0.800	0.800	0.800	0.800	0.800	5.318
TOTAL DIRECT FINANCIAL BENEFITS				3.794	20.128	27.274	33.999	24.339	21.490	21.490	21.490	21.490	195.494
NET PRESENT VALUE				3.136	15.122	18.629	21.111	13.739	11.026	10.025	9.114	8.285	110.186
INDIRECT FINANCIAL BENEFITS													
A) Manpower					2.270	4.800	6.750	8.100	7.860	7.530	7.530	7.530	52.370
B) Reductions in inventory holding costs:													
1.) Sales of obsolete stock					0.323	1.294	2.425	3.556	3.556	3.556	3.556	3.556	21.822
2.) Overall inventory and consumables reductions						0.863	1.933	3.678	4.392	4.504	4.615	4.727	24.713
TOTAL INDIRECT FINANCIAL BENEFITS					2.593	6.957	11.108	15.335	15.808	15.590	15.701	15.813	98.905
NET PRESENT VALUE					1.948	4.752	6.897	8.656	8.112	7.273	6.659	6.097	50.393
TOTAL FINANCIAL BENEFITS				3.794	22.721	34.231	45.107	39.674	37.298	37.080	37.191	37.303	294.399
NET PRESENT VALUE				3.136	17.071	23.380	28.008	22.395	19.140	17.298	15.773	14.382	160.582
Manpower Numbers by year ((including productivity gains)				84.50	341.63	411.46	511.13	527.29	527.29	527.29	527.29	527.29	527.29
DIRECT FINANCIAL COSTS													
a) MANPOWER (1)	25.320	7.150	4.760	6.510	3.610	3.220	2.550	1.620					54.740
b) RECURRING (2)	1.104	0.527	1.827	3.596	4.867	5.615	6.911	8.869	9.594	9.662	9.820	9.844	72.036
c) CAPITAL	7.689	4.964											12.653
CONSULTANTS/CONTRACTORS			12.920	10.578	4.009	3.697	4.625	6.444					42.273
COMPUTER/DEVICES			9.152	19.862	6.340	11.250	4.511						51.145
SOFTWARE			2.313	6.879	0.928	1.747	0.524						12.391
COMMS/FURN/FACILITIES			2.066	2.218	1.472	1.207	0.844						7.807
ADMINISTRATION (3)			0.327	0.910	0.405	0.232	0.124	0.105					2.104
TOTAL DIRECT FINANCIAL COSTS	34.113	12.641	33.365	50.583	21.432	26.968	20.089	17.038	9.594	9.662	9.820	9.844	255.149
NET PRESENT VALUE	37.524	12.641	30.332	41.804	16.102	18.420	12.474	9.618	4.923	4.507	4.165	3.795	196.306
INDIRECT FINANCIAL COSTS													
a) CENTRAL FACILITIES (PHASE 14)	0.008	0.924	0.255										1.187
b) SECURE PROCESSING ENVIRONMENT (PHS) CONTRACTORS						1.502							1.502
COMPUTERS/DEVICES						0.834	1.228	0.967	0.097	0.097			3.223
SOFTWARE						0.214	0.641	0.415	0.039	0.039			1.348
COMMS/FURN/FACILITIES						0.262	0.302	0.195	0.019	0.019			0.797
ADMINISTRATION						0.002	0.026	0.019	0.002	0.002			0.051
c) DEVELOPMENT ENVIRONMENT (PHASE 7)	8.115	2.251											10.366
CONSULTANTS/CONTRACTORS			0.184										0.184
COMPUTERS/DEVICES			1.782										1.782
SOFTWARE			0.504										0.504
COMMS/FURN/FACILITIES			0.233										0.233
TOTAL INDIRECT COSTS	8.123	3.175	2.958			2.814	2.197	1.596	0.157	0.157			21.177
NET PRESENT VALUE	8.035	3.175	2.689			1.922	1.364	0.901	0.081	0.073			19.140
TOTAL FINANCIAL COSTS	42.236	15.816	36.323	50.583	21.432	29.782	22.286	18.634	9.751	9.819	9.820	9.844	276.326
NET PRESENT VALUE	46.460	15.816	33.021	41.804	16.102	20.342	13.838	10.518	5.004	4.581	4.165	3.795	215.445
NET BENEFITS	-42.236	15.816	36.323	-46.789	1.289	4.449	22.821	21.040	27.547	27.261	27.371	27.459	18.073
NET PRESENT VALUE NET	-46.460	15.816	33.021	38.669	0.968	3.039	14.170	11.877	14.136	12.717	11.608	10.587	54.863
													Net Present Value Percentage 5.1%

Notes 1) Manpower includes Project Technical Support Administration and Service User Groups

2) Recurring includes Consumables Maintenance and Annual line rental charges

3) Administration includes Travel Training and Freight

...nced Acquisition: SUPPLY SYSTEM REDEVELOPMENT
..., Prepared: 25/3/92
PRICE BASIS: DEC 1990

ENHANCEMENTS
FINANCIAL IMPACT STATEMENT (FIS)

DIRECT FINANCIAL BENEFITS	83/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01	TOTA
A) Manpower														
B) Cost savings by minimising stockholdings of obsolete and surplus stock (through an automated disposals system)		3.700	2.620	10.380	20.800	14.760	8.100	6.100						64.4
C) Cost savings through overall inventory reductions (through improvements in the ordering and forcasting system - reduced supply margins, shorter provisioning cycles)					0.440	4.710	10.330	6.700	1.000					23.1
D) Reduced Consumables		0.910	1.650	1.870	1.870	1.870	1.870	1.870	1.870	1.870	1.870			17.6
TOTAL DIRECT FINANCIAL BENEFITS		4.610	4.270	12.250	23.110	21.340	20.300	14.670	2.870	1.870	1.870			105.1
NET PRESENT VALUE		5.071	4.270	11.136	19.066	16.023	12.499	9.109	1.620	0.960	0.872			80.6
INDIRECT FINANCIAL BENEFITS														
A) Manpower		2.301	6.966	9.666	10.380	10.380	10.380	10.380	10.380	10.380	10.380			91.3
B) Reductions in inventory holding costs:														
1.) Sales of obsolete stock			0.850	1.170	3.090	6.950	9.680	10.820	11.950	11.950	11.950			68.4
2.) Overall inventory reductions						0.080	0.950	2.870	4.110	4.290	4.290			16.5
TOTAL INDIRECT FINANCIAL BENEFITS		2.301	7.516	10.836	13.470	17.410	21.010	24.070	26.440	26.620	26.620			176.2
NET PRESENT VALUE		2.531	7.516	9.854	11.132	13.060	14.350	14.946	14.925	13.650	12.418			114.4
TOTAL FINANCIAL BENEFITS		6.911	11.786	23.086	36.580	38.750	39.310	38.740	29.310	28.490	28.490			281.4
NET PRESENT VALUE		7.602	11.786	20.990	30.231	29.113	26.849	24.054	16.545	14.620	13.291			195.0
Note 1) Manpower Numbers by year		79.00	187.00	228.00	228.00	228.00	228.00	228.00	228.00	228.00	228.00			228
DIRECT FINANCIAL COSTS														
a) MANPOWER (2)		18.310	1.490	1.530	1.420	1.260								22.0
b) RECURRING (3)		0.336	0.280	0.280	0.280	0.280	0.280	0.280	0.280	0.280	0.280			3.1
c) CAPITAL		9.870	0.343	0.021										10.2
CONSULTANTS/CONTRACTORS														
COMPUTER/DEVICES														
SOFTWARE														
COMMS/FURN/FACILITIES														
ADMINISTRATION (4)														
TOTAL DIRECT FINANCIAL COSTS		28.516	2.113	1.831	1.700	1.540	0.280	0.280	0.280	0.280	0.280	0.280		35.1
NET PRESENT VALUE		32.084	2.324	1.831	1.545	1.273	0.210	0.191	0.174	0.158	0.144	0.131		40.0
INDIRECT FINANCIAL COSTS														
a) CENTRAL FACILITIES (PHASE 14)			0.008	0.923	0.255									1.1
b) SECURE PROCESSING ENVIRONMENT (PH9) CONTRACTORS														
COMPUTERS/DEVICES														
SOFTWARE														
COMMS/FURN/FACILITIES														
ADMINISTRATION														
c) DEVELOPMENT ENVIRONMENT (PHASE 7)														
CONSULTANTS/CONTRACTORS														
COMPUTERS/DEVICES														
SOFTWARE														
COMMS/FURN/FACILITIES														
BUREAU SERVICES														
TOTAL INDIRECT COSTS			0.008	0.923	0.255									
NET PRESENT VALUE			0.008	0.923	0.232									
TOTAL FINANCIAL COSTS		28.516	2.121	2.754	1.955	1.540	0.280	0.280	0.280	0.280	0.280	0.280		36
NET PRESENT VALUE		32.084	2.333	2.754	1.777	1.273	0.210	0.191	0.174	0.158	0.144	0.131		41
NET BENEFITS		28.516	4.790	9.052	21.134	35.040	38.470	38.030	38.460	29.030	28.210	28.210		245
NET PRESENT VALUE NET		32.084	5.269	9.052	19.213	28.959	28.903	26.658	23.841	16.387	14.476	13.160		198

Notes 2) Manpower includes Project Technical Support Administration and Service User Groups

Net Present Value Percentage

3) Recurring includes Consumables, Maintenance and Annual line rental charges

4) Administration includes Travel, Training and Freight

AUTOD
FINANCIAL IMPACT STATEMENT ($M)

IRECT FINANCIAL BENEFITS	87/88	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01	TOTAL
) Manpower				1.234	3 219	6 399	11.516	13 557	13 557	13.557	13 557			76.596
) Cost savings by minimising stockholdings of obsolete and surplus stock (through an automated disposals system)														
) Cost savings through overall inventory reductions (through improvements in the ordering and forcasting system - reduced supply margins, shorter provisioning cycles)														
'OTAL DIRECT FINANCIAL BENEFITS				1.234	3.219	6 399	11.516	13 557	13.557	13.557	13 557			76 596
NET PRESENT VALUE				1 122	2.660	4.808	7.866	8.418	7.653	6.957	6 324			45 807
NDIRECT FINANCIAL BENEFITS														
) Manpower														
) Reductions in inventory holding costs:														
.) Sales of obsolete stock														
2.) Overall inventory reductions														
TOTAL INDIRECT FINANCIAL BENEFITS														
NET PRESENT VALUE														
TOTAL FINANCIAL BENEFITS				1 234	3 219	6 399	11 516	13 557	13 557	13 557	13.557			76 596
NET PRESENT VALUE				1 122	2 660	4.808	7.866	8 418	7.653	6 957	6 324			45 807
Note 1) Manpower Numbers by year				28 00	58 00	114 00	200 00	200 00	200 00	200 00	200 00			200 00
)IRECT FINANCIAL COSTS														
a) MANPOWER (2)	0 450	0 480	0.530	0 530	0 530									2.520
b) RECURRING (3)		0 010	0 010	0 020	0 610	0 913	0 913	0 913	0.913	0 913	0 913			6 128
c CAPITAL	0 047	2 694	2.880											5 621
CONSULTANTS/CONTRACTORS				0 069	0 035									0.104
COMPUTER/DEVICES				2 834	1.540									4 474
SOFTWARE				0 577	0 245									0 822
COMMS/FURN/FACILITIES				0 629	0 474									1.103
ADMINISTRATION (4)				0 128	0 099									0 227
TOTAL DIRECT FINANCIAL COSTS	0 497	3 184	3 420	4 887	3 533	0 913	0 913	0 913	0 913	0 913	0 913			20 999
NET PRESENT VALUE	0 501	3 502	3 420	4 443	2 920	0 686	0 624	0 567	0 515	0 469	0 426			18 173
NDIRECT FINANCIAL COSTS														
a) CENTRAL FACILITIES (PHASE 1&)														
b) SECURE PROCESSING ENVIRONMENT (PHA) CONTRACTORS														
COMPUTERS/DEVICES														
SOFTWARE														
COMMS/FURN/FACILITIES														
ADMINISTRATION														
.) DEVELOPMENT ENVIRONMENT (PHASE 7)														
CONSULTANTS/CONTRACTORS														
COMPUTERS/DEVICES														
SOFTWARE														
'OTAL INDIRECT COSTS														
NET PRESENT VALUE														
OTAL FINANCIAL COSTS	0 497	3 184	3 420	4 887	3 533	0 913	0 913	0 913	0 913	0 913	0 913			20 999
IET PRESENT VALUE	0 501	3 502	3 420	4 443	2 920	0 686	0 624	0 567	0 515	0 469	0 426			18 173
IET BENEFITS	-0 497	-3 184	-3 420	-3 653	-0 314	5 486	10 603	12 644	12 644	12 644	12 644			55 597
IET PRESENT VALUE NET	-0 501	-3 502	-3 420	-3 321	-0 260	4 122	7 242	7 851	7 137	6 488	5 899			27 635

Net Present Value Percentage 0 100

Notes 2) Manpower includes Project Technical Support Administration and Service User Groups
3) Recurring includes Consumables Maintenance and Annual line rental charges
4) Administration includes Travel Training and Freight

posed Acquisition: *SUPPLY SYSTEM REDEVELOPMENT*
Prepared: 25/09/91
PRICE BASIS: DEC 1990

SLIMS
FINANCIAL IMPACT STATEMENT (FIS)

DIRECT FINANCIAL BENEFITS	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01	TOTAL
A) Manpower													
B) Cost savings by minimising stockholdings of obsolete and surplus stock (through an automated disposals system)				3 462	7 950	9 247	4 480						25.14
C) Cost savings through overall inventory reductions (through improvements in the ordering and forcasting system - reduced supply margins, shorter provisioning cycles)													
TOTAL DIRECT FINANCIAL BENEFITS				3 462	7 950	9 247	4 480						25.14
NET PRESENT VALUE				2 861	5 973	6 318	2 787						17.937
INDIRECT FINANCIAL BENEFITS													
A) Manpower													
B) Reductions in inventory holding costs:													
1.) Sales of obsolete stock					0 692	2 282	4.131	5 025	5 025	5 025			22.180
2.) Overall inventory reductions													
TOTAL INDIRECT FINANCIAL BENEFITS					0 692	2 282	4 131	5 025	5 025	5 025			22.180
NET PRESENT VALUE					0 520	1 550	2 565	2 836	2 579	2 344			12.403
TOTAL FINANCIAL BENEFITS				3 462	8 642	11 529	8 620	5 025	5 025	5 025			47.328
NET PRESENT VALUE				2 861	6 493	7 874	5.352	2.836	2 579	2.344			30 340
Note 1) Manpower Numbers by year													
DIRECT FINANCIAL COSTS													
a) MANPOWER (2)	0.160	0.190	0.410	0 410	0 410	0.380	0 380						2.34
b) RECURRING (3)			0 015	0 015	0 100	0.178	0.237	0.296	0.312	0.312	0.312		1.778
c) CAPITAL	0 002	0 540	1.332										1.874
CONSULTANTS/CONTRACTORS				0 329	0 296	0.238	0 238						1.103
COMPUTER/DEVICES				1.112	1.068	1 003	0.999						4.202
SOFTWARE				0 507	0.238	0 238	0 119						1.102
COMMS/FURN/FACILITIES				0 352	0 075	0 042	0 006						0 475
ADMINISTRATION (4)				0 067	0 066	0 070	0 070						0 27
TOTAL DIRECT FINANCIAL COSTS	0 162	0 730	1.757	2 793	2 275	2 149	2 049	0 296	0 312	0 312	0 312		13 147
NET PRESENT VALUE	0 196	0 803	1 757	2 539	1 880	1 615	1 399	0 184	0 176	0 160	0 146		10 855
INDIRECT FINANCIAL COSTS													
a) CENTRAL FACILITIES (PHASE 14)													
b) SECURE PROCESSING ENVIRONMENT (PHS) CONTRACTORS													
COMPUTERS/DEVICES													
SOFTWARE													
COMMS/FURN/FACILITIES													
ADMINISTRATION													
c) DEVELOPMENT ENVIRONMENT (PHASE 7)													
CONSULTANTS/CONTRACTORS													
COMPUTERS/DEVICES													
SOFTWARE													
TOTAL INDIRECT COSTS													
NET PRESENT VALUE													
TOTAL FINANCIAL COSTS	0 162	0 730	1,757	2 793	2.275	2 149	2 049	0 296	0 312	0 312	0 312		13 14
NET PRESENT VALUE	0 196	0 803	1 757	2 539	1 880	1 615	1 399	0 184	0 176	0 160	0 146		10 85
NET BENEFITS	-0 162	-0 730	1 757	-2 793	1 187	6 493	9 480	8 324	4 713	4 713	4 713		34 181
NET PRESENT VALUE NET	-0 196	-0 803	1 757	-2 539	0 981	4 878	5 475	5 169	2 660	2 419	2 199		19 4
Net Present Value Percentage													0 640

Notes 2) Manpower includes Project Technical Support Administration and Service User Groups
3) Recurring includes Consumables, Maintenance and Annual line rental charges
4) Administration includes Travel Training and Freight

ropos   quisition: SUPPLY SYSTEM REDEVELOPMENT
ate P.,   d. 25/3/92
RICE BASIS: DEC 1990

DEFERRED EXECUTIVE
FINANCIAL IMPACT STATEMENT ($M)

IRECT FINANCIAL BENEFITS	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01	TOTAL
Manpower													
Cost savings by minimising stockholdings of obsolete and surplus stock (through an automated disposals system)													
Cost savings through overall inventory reductions (through improvements in the ordering and forcasting system - reduced supply margins, shorter provisioning cycles)													
OTAL DIRECT FINANCIAL BENEFITS													
ET PRESENT VALUE													
NDIRECT FINANCIAL BENEFITS													
Manpower													
Reductions in inventory holding costs: Sales of obsolete stock													
Overall inventory reductions													
OTAL INDIRECT FINANCIAL BENEFITS													
ET PRESENT VALUE													
OTAL FINANCIAL BENEFITS													
T PRESENT VALUE													
..1) Manpower Numbers by year													
IRECT FINANCIAL COSTS													
MANPOWER (1)	2.080		0.210	0.500	1.630	2.080	2.350	2.250	2.620				13.720
RECURRING (2)						0.871	0.911	0.955	1.004	2.568	2.627	2.691	11.627
CAPITAL	0.418												0.418
CONSULTANTS/CONTRACTORS						0.811	1.571	7.226	5.423				15.031
COMPUTER/DEVICES									34.241				34.241
SOFTWARE									0.510				0.510
COMMS/FURN/FACILITIES									9.613				9.613
ADMINISTRATION (3)						0.037	0.034	0.068	0.116				0.255
OTAL DIRECT FINANCIAL COSTS	2.496		0.210	0.500	1.630	3.799	4.866	10.499	53.527	2.568	2.627	2.691	85.413
ET PRESENT VALUE	2.746		0.191	0.413	1.225	2.595	3.021	5.926	27.468	1.198	1.114	1.037	46.934
NDIRECT FINANCIAL COSTS													
CENTRAL FACILITIES (PHASE 14)	0.008	0.923	0.255										1.186
SECURE PROCESSING ENVIRONMENT (PHASE 9) CONTRACTORS													
COMPUTERS/DEVICES													
SOFTWARE													
COMMS/FURN/FACILITIES													
ADMINISTRATION													
DEVELOPMENT ENVIRONMENT (PHASE 7)													
CONSULTANTS/CONTRACTORS													
COMPUTERS/DEVICES													
SOFTWARE													
OTAL INDIRECT COSTS	0.008	0.923	0.255										1.186
ET PRESENT VALUE	0.009	0.923	0.281										1.305
OTAL FINANCIAL COSTS	2.504	0.923	0.465	0.500	1.630	3.799	4.866	10.499	53.527	2.568	2.627	2.691	86.599
ET PRESENT VALUE	2.754	0.923	0.423	0.413	1.225	2.595	3.021	5.926	27.468	1.198	1.114	1.037	48.098
ET BENEFITS	-2.504	-0.923	-0.465	-0.500	1.630	3.799	-4.866	10.499	-53.527	-2.568	2.627	-2.691	-86.599
ET PRESENT VALUE NET	-2.754	-0.923	-0.423	-0.413	1.225	2.595	3.021	5.926	27.468	1.198	1.114	1.037	-48.098

otes 1) Manpower includes Project Technical Support, Administration and Service User Groups
2) Recurring includes Consumables, Maintenance and Annual line rental charges
3) Administration includes Travel, Training and Freight

Net Present Value Percentage 0.100

Propos[illegible] [illegible]quisition: SUPPLY SYSTEM REDEVELOPMENT
Date P[illegible] [illegible]d. 25/3/92
PRICE BASIS: DEC 199[illegible]

CENCAT
FINANCIAL IMPACT STATEMENT ($M)

DIRECT FINANCIAL BENEFITS	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01	TOTAL
A) Manpower													
B) Cost savings by minimising stockholdings of obsolete and surplus stock (through an automated disposals system)													
C) Cost savings through overall inventory reductions (through improvements in the ordering and forcasting system - reduced supply margins, shorter provisioning cycles)													
TOTAL DIRECT FINANCIAL BENEFITS													
NET PRESENT VALUE													
INDIRECT FINANCIAL BENEFITS													
A) Manpower													
B) Reductions in inventory holding costs:													
1.) Sales of obsolete stock													
2.) Overall inventory reductions													
TOTAL INDIRECT FINANCIAL BENEFITS													
NET PRESENT VALUE													
TOTAL FINANCIAL BENEFITS													
NET PRESENT VALUE													
) Manpower Numbers by year													
DIRECT FINANCIAL COSTS													
a) MANPOWER (1)						0.850	2.240	1.480					4.5[illegible]
b) RECURRING (2)													
c) CAPITAL													
CONSULTANTS/CONTRACTORS													
COMPUTER/DEVICES													
SOFTWARE													
COMMS/FURN/FACILITIES													
ADMINISTRATION (3)						0.028	0.028	0.026					0.0[illegible]
TOTAL DIRECT FINANCIAL COSTS						0.878	2.268	1.506					4.6[illegible]
NET PRESENT VALUE						0.600	1.408	0.850					2.8[illegible]
INDIRECT FINANCIAL COSTS													
a) CENTRAL FACILITIES (PHASE 14)													
b) SECURE PROCESSING ENVIRONMENT (PH9) CONTRACTORS													
COMPUTERS/DEVICES													
SOFTWARE													
COMMS/FURN/FACILITIES													
ADMINISTRATION													
CONTINGENCY													
c) DEVELOPMENT ENVIRONMENT (PHASE 7)													
CONSULTANTS/CONTRACTORS													
COMPUTERS/DEVICES													
SOFTWARE													
TOTAL INDIRECT COSTS													
NET PRESENT VALUE													
TOTAL FINANCIAL COSTS						0.878	2.264	1.506					4[illegible]
NET PRESENT VALUE						0.600	1.408	0.850					2.[illegible]
NET BENEFITS						-0.878	-2.264	-1.506					-4[illegible]
NET PRESENT VALUE - NET						-0.600	-1.408	-0.850					-2[illegible]

Notes 1) Manpower includes Project Technical Support, Administration and Service User Groups
2) Recurring includes Consumables, Maintenance and Annual line rental charges
3) Administration includes Travel, Training and Freight

Net Present Value Percentage: 0.1[illegible]

QUESTION 2

[Provide] a copy of any other recent cost-benefit analyses undertaken in relation to SSRP or its sub-projects.

RESPONSE

There are no other recently completed SSRP cost-benefit analyses. However the following should be noted:

a. As part of the Department's budget considerations in developing the 1992-96 Four Year Defence Plan, a review is underway of the achievability of planned personnel reductions and related financial savings from all of the major Defence savings initiatives. These initiatives include the Force Structure Review, the Defence Regional Support Review, the Commercial Support Program, the Defence Logistics Redevelopment Project, as well as the major computer redevelopment projects. In this context, the achievability of planned savings from SSRP are also being examined.

b. While Defence consideration of the outcome of these reviews is not expected to be completed until June 1992, Navy has indicated that there will be a reduction in benefits derived from SSRP systems implemented in Navy as:

- recent experience with sales of surplus/obsolete inventory is that the returns from such sales have not been of the magnitude originally forecast;
- reductions in the size of the fleet since the

initial implementations of SLIMS has reduced the scope for achievements of benefits from that system (albeit this will also reduce costs for SLIMS)

Navy is still finalising its position on these issues.

c. Army has, at this stage, advised that there have been no developments necessitating changes to Army costs or benefits relevant to SSRP. Air Force has advised that the benefits will be affected by the closure of bases under the Force Structure Review and by the impact of other Defence savings initiatives including the Commercial Support Program, the Defence Regional Support Review and RAAF's warehousing strategy under the Defence Logistics Redevelopment Project. The impact of these changes are also expected to reduce the costs of SSRP.

d. Concurrent with these developments, Computer Power Group, the Prime Systems Integrator for SSRP, is validating the costs and the benefits of the Standard Defence Supply System as part of the Preliminary Design studies that it is undertaking. Computer Power Group is expected to provide a report to the Department by mid 1992. This work includes examination of the potential to increase the use of MIMS software within the supply environment. That proposal, if confirmed as viable, has the potential to substantially reduce the costs of not yet approved phases of the project (the cost of the Deferred Executive element is currently estimated at $85m).

[redacted]

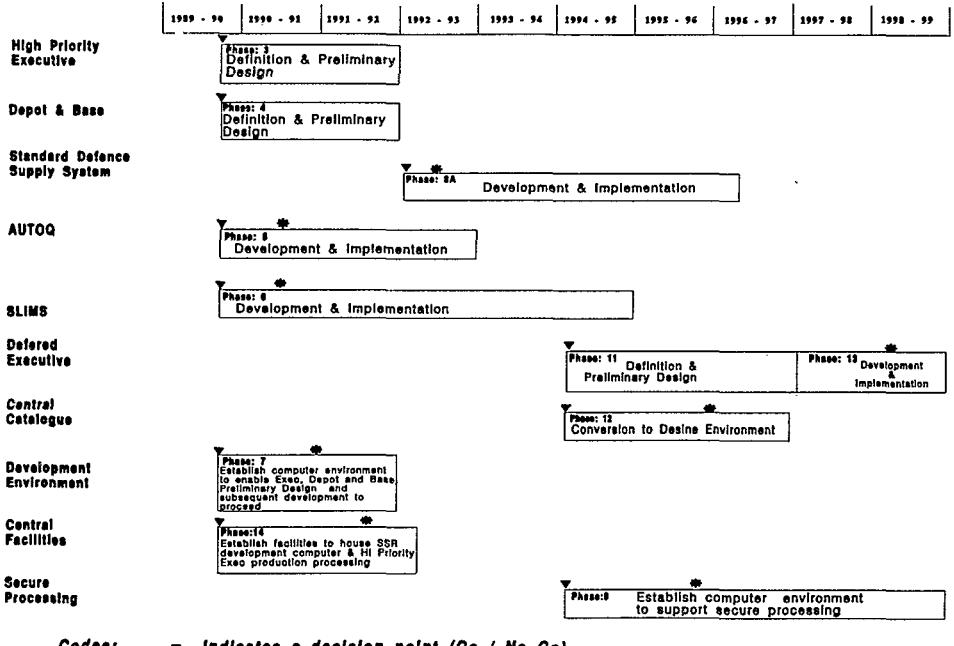
e. The Department does not expect to be in a position to assess the impact of all these developments until June 1992.

QUESTION 3

[Provide] an updated version of the attached chart, the updated version of the chart to show the original planned commencement dates of phases, actual commencement dates and planned and actual (if applicable) completion dates. Attached to the updated chart should be a statement of the reasons for any slippage in the separate phases.

RESPONSE

An updated version of the chart, which reflects the previously advised merging of the AUTOPROC and Depot and Base implementation elements (Phases 8 and 10) and the Software Package (Phase 7a) into the Standard Defence Supply System (Phase 8a), is at Attachment 1 to this response. A separate table, showing the original and actual/currently planned commencement and completion dates is at Attachment 2 to this response together with explanations of any variations.



Codes: ▼ ***Indicates a decision point (Go / No Go)***

✱ ***Initial Operational Capability***

ATTACHMENT 2 TO QUESTION 3 RESPONSE

COMPARISON OF ORIGINAL AND CURRENT SSRP SCHEDULE

The following table summarises the variation from the original schedule for each of the SSRP financial phases since the submission to the Committee. In regard to commencement dates in the original submission, it should be noted that Government approval for Phases 3, 4, 5, 6, 7 and 14 was not obtained until the August 1989 Budget. Further, at the time of the original submission, the level of funding for SSRP for 1989-90 and subsequent years was subject to review in the context of Defence priorities and programs in the formulation of the 1989-90 Defence Budget Submission and the 1990-95 Five Year Defence Plan. The Committee was advised in July 89 that details of the exact implementation timeframes and the staging of activities may need to be revised once the funding situation was determined.

PHASE	COMMENCEMENT		COMPLETION	
	March 1989 Submission	Actual/ Current Plan	March 1989 Submission	Current Plan
3	August 1988	March 1990	March 1990	June 1992
4	August 1988	March 1990	Sept 1990	June 1992
5	August 1988	March 1990	June 1992	June 1993
6	August 1988	March 1990	June 1994	June 1995
7	August 1988	March 1990	June 1991	June 1992
7A	August 1989	Subsumed by 8A	June 1991	Subsumed by 8A

8	April 1990	Subsumed by 8A	Dec 1992	Subsumed by 8A
8A	-	July 1992	-	June 1997
9	August 1990	August 1994	June 1996	June 1999
10	October 1990	Subsumed by 8A	June 1996	Subsumed by 8A
11	August 1991	August 1994	June 1995	July 1997
12	August 1992	August 1994	June 1995	June 1997
13	August 1995	August 1997	March 1998	June 1998
14	August 1988	March 1990	June 1990	September 1992

EXPLANATION OF VARIATION

Updates of project progress, including revised commencement and completion dates and explanations of variations against SSRP financial phases (and/or the activities to which they relate) have previously been provided to the Joint Committee of Public Accounts in several Departmental submissions since July 1989, the most recent of which was forwarded to the Committee on 10 October 1991. This statement provides an update on the October 1991 submission.

Phases 3 and 4

Phases 3 and 4 relate to the capital costs associated with the Definition and Preliminary Design of the AUTOPROC and Depot and Base systems (which have now been merged into the Standard Defence Supply System [SDSS]) and finalisation of the

Enhancements element. In the October 1991 submission, it was expected that the SDSS Preliminary Design activities would be completed April 1992 ie the Prime Systems Integrator (PSI) Contract end date for Stage 1 of the PSI proposal. However, it now appears likely that those Preliminary Design activities will not be completed until June 1992, principally because of the level of complexity of integrating application package software with the existing Services' Supply Systems. In particular, this was realised during the General System Design development. As part of this activity, the PSI identified a potentially more advantageous way ahead by pursuing a system design with the potential to utilise the MIMS software to a greater extent than originally envisaged.

In regard to the Enhancements element, there has been some minor slippage in completion of three outstanding enhancements. However, there are no capital costs associated with these enhancements and the end date of the financial phase is not effected.

Phase 5

This phase relates to the development and implementation of the Army AUTOQ system. Progress has been consistent with the plan advised in October 1991 and there is no change to the forecast completion date. The system has now been implemented throughout Army with the exception of one unit in the Northern Territory for which implementation has been delayed due to Kangaroo 92 and other Army exercises/reviews. It is expected that this remaining unit will be outfitted in September 1992 with no effect on the forecast end date for the phase.

Phase 6

Phase 6 relates to the development and implementation of the Navy SLIMS system for ships. Again, there is no change to the October forecast end date. Progress against this phase has also been broadly consistent with the October 1991 schedule and by July 1992, it is expected that installation of the supply module will be completed on six major ships and ten tenders.

Phase 7

This phase relates to costs in establishing the SDSS development environment. As reported in October 91, that environment has been established, the MIMS software package installed on the development computer and the phase will be completed by the end of June 92.

Phase 8a

This phase incorporates costs associated with the development and implementation of the SDSS and cannot commence until Stage 1 of the PSI activities (incorporated in Phases 3 and 4) is completed. Accordingly, for the reasons advised against Phases 3 and 4, this phase is not now expected to commence until July 1992. The PSI is currently reviewing plans for completion of this Phase and a revised completion date is expected to be available May 1992.

Phase 14

Phase 14, which relates to the establishment of facilities to house the development computer, is substantially completed with only some minor works, which will not impact on overall project schedules, to be finalised early 1992/93.

Not yet approved Phases

Phase 9, 11, 12 and 13 are yet to be submitted to Government for approval and status was not reported to the Committee in the October 1991 submission. However, there has been no change to the previous chart which addressed these phases viz that incorporated in the Department's submission of October 1989.

QUESTION 4

[Provide] a brief and concise statement of the origin of the 'common core' approach in Defence.

RESPONSE

The concept of commonality of systems to the maximum extent possible was established around the time of the 1976 Department of Defence reorganisation. The then impending replacement of existing central computer hardware provided an opportunity to review and revise computerised supply systems and their processing specifications, to identify differences between the Services, to effect some rationalisation, and to secure as much commonality/compatibility as possible to isolate legitimate exceptions.

The common core concept was concerned with achievement of commonality in:

a. data definition and the application of data;
b. program modules and transactions;
c. computer hardware and operating systems software;
d. input/output formats including Visual Display Unit (VDU) formats;
e. general supply terminology;
f. manual procedures, and
g. implementation and training,

As indicated in the Department's initial submission to the JPCA in March 89, a Business Review Working Group (BRWG) was formed in 1982 to determine the way ahead for supply systems redevelopment, as progress towards achieving common core systems had been inhibited since 1977 by the priority given to the Honeywell/UNIVAC conversion. A copy of the Executive Summary of the BRWG's report was provided at Appendix B to the Department's submission dated 10 March 89. Based on the recommendations contained in that report, the Defence Force Development Committee, in April 1983, endorsed the common core concept for supply systems redevelopment and established the present Supply Systems Redevelopment Project to achieve this goal.

Details of the scope of common core redevelopment and benefits, including comments on the genesis of the common core approach, were contained in the Department's supplementary submission to the Committee, dated 13 June 1989.

QUESTION 5

[Provide] a concise explanation of the projects which are to interface with SSRP.....

QUESTION 6

[Provide] the cost of consultants used for SSRP for financial years 1989-90, 1990-91 and the current financial year. If possible, this information should be broken down by sub project.

RESPONSE

The required information is provided below. It should be noted that the figures for the Standard Defence Supply System (SDSS) include expenditure against both the High Priority Executive sub project and the Depot/Base project which, as noted in the response to Question 3, were amalgamated to form the SDSS project in 1991-92. The details include costs of consultancies, individual contractors, and Prime Systems Integrator services.

	1989-90	1990-91	1991-92 Est
	$m	$m	$m
SDSS	2.82	3.36	11.69
AUTOQ	0.01	0.04	0.10
SLIMS	-	0.30	0.46
TOTAL	2.83	3.70	12.25

QUESTION 7

[Provide] details of the strategies Defence has, or is considering, for advancing SSRP once the DESINE Contract finishes in February 1994.

RESPONSE

SSRP utilises the DESINE Contract for computer hardware and systems software acquisitions. In all other respects, progression of SSRP (including the acquisition of commercial supply/inventory management software and systems integration services through separate contracts) will proceed in accordance with the development strategy presently endorsed by the Department, the SSRP ADP Acquisition Council and the Government.

Defence has formed a Working Group to decide on a strategy for information technology (IT) acquisition after the current contract with IBM expires in February 1994. The Working Group is sponsored by Headquarters Australian Defence Force. The acquisition environment is to be directed towards internationally agreed Open Systems standards, using the Australian Government Open Systems Interconnect Profile (GOSIP) where this is appropriate. A decision on the most suitable acquisition process following expiration of the IBM contract will be made in mid 1993. SSRP computer hardware and systems software acquisitions post February 1994 will be consistent with these processes.

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NOTES ON THE ARCHITECTURE OF COMPUTER NETWORKS

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Introduction and Basic Terminology:

This introduction is designed to familiarise the reader with basic computer terminology. Terms which crop up regularly later are underlined.

A computer works because it has hardware (electronic equipment) and software (a program). Computers are generally supplied with a special program or suite of programs called an operating system. This is the type of program which is loaded when a PC is turned on. It performs all of the computer's "house-keeping" tasks such as retrieving data from disks or tapes, loading and running applications (programs), and performs system functions such as copying files, listing files and error recovery.

There are many possible operating systems for a given computer. One of the most common for IBM-compatible PCs is MicroSoft Disk Operating System (MS-DOS). The new IBM PS/2 workstation runs the OS/2 operating system, and can also run a UNIX operating system. Large mainframe computers and intermediate mini-computers have much more sophisticated operating systems to manage their greater resources.

Two or more computers may be linked in a network. Computers must know how to interpret the data coming in, so data must be sent according to a special format. This format is laid down in a specification, of which there are many.

What are OSI and SNA?:

One of the greatest limitations on the extension of existing computer networks is the connectivity problem.

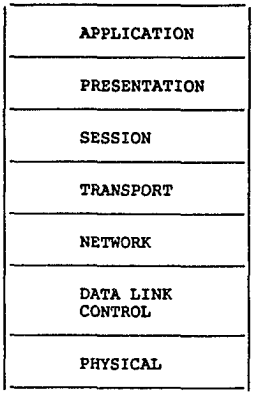
Generally, customers have limited choices about hardware which can be attached to the network because of problems with machine to machine communications compatibility. There has therefore been a movement in the last few years towards "open systems", able to exchange data and programs "freely". There are levels of freedom of course.

The result has been the development of network architectures which specify the form of communication between machines. What is an architecture? The dictionary definition is "a style of design". So a network architecture is a "style" or specification for the links in a network.

The accepted standard was established by the International Standards Organisation (ISO) and is labelled Open Systems Interconnection (OSI).

The standard invokes the concept of "layers" of function. The OSI layers are displayed on the next page.

They are to be interpreted in the following way. Suppose an application i.e. a program wants to communicate some information to another application. This means translating the data into a transmittable form. The application invokes a service provided in the "application" layer and passes the data to it. The application service in turn passes the data to a service in the "presentation" layer. Each layer in turn performs some operation on the data until we reach the "physical" layer i.e. a wire. The data is transmitted on the wire to the destination. The data is then passed back up the sequence and is presented to the receiving application in the appropriate form. Because each layer services the next, this is called a "service hierarchy".



Each of the layers has a specification. The specifications lock together to yield a integrated communications architecture, specified at all levels.

A similar standard was developed by IBM in the 1970's. This is called Systems Network Architecture (SNA). The names, functions and specifications of each level differ from OSI. This means that networks based in the two architectures are not directly connectable. Several other companies have their own network architectures.

There is a trend among hardware companies to support parts or all of the OSI specification in their own architectures. This will allow propriety networks to communicate with OSI-based networks, or with networks with similar OSI support. To the question: "Will all networks function on OSI architecture in the

future?", the answer is "Probably never". The "OSI support" applies to the lower layers of the architecture, and will provide gateways into other networks at those layers.

This seems to be the trend at present. Many of the network suppliers, principally IBM and Digital Equipment Corporation (DEC), are developing gateways which will allow connectability. Many of these are based on the OSI architecture. This is a reasonable approach, because it is impractical for network users to discard existing equipment simply to maintain compatibility with a standard, however rational.

The question then arises: are customers who buy IBM equipment locked into IBM hardware indefinitely? In the light of the preceding paragraph, the answer seems to be "No". There is a caveat however. There are no generally accepted OSI standard tests for communications interfaces. This gives companies some freedom in claiming "OSI compatibility" for their products, and any such claim would have to be examined closely. The result of choosing IBM equipment could easily be to lock oneself into a SNA-gateway implementation of OSI. There would therefore be cost and performance overheads involved in the connection of non-SNA, OSI-compatible equipment. This would make the purchase of IBM equipment which could be directly attached to the network much more attractive if network expansion were contemplated.

If this sounds somewhat sinister, it must be said in IBM's defence that there are no really OSI-compatible networks presently available, and the gateway approach is emerging as an accepted approach to the problem of network connectivity.

What is SAA:

What exactly is IBM's Systems Application Architecture, and what is its connection to SNA and OSI?

As before, architecture may be defined as a "style of design". SAA is therefore a "style" for software applications on computer networks. It has been introduced, like DEC's Application Integration Architecture, to facilitate the development of applications which run on the sort of networks common in many organisations. Such networks generally contain many types of computer. The computers have different, sometimes overlapping, functions, which often require transfer of data from one type of computer to another. SAA specifies the form of many of the communications functions that an application will need, ensuring compatibility between the different elements of the network.

IBM has specified SAA in the following environments:

- the System/370 mainframe, IBM's workhorse, running either the MVS or the VM operating system
- the AS/400 mid-range computer running on the OS/400 operating system
- the PS/2 workstation running the OS/2 operating system

The PS/2 and the AS/400 have only been released in the past few years, and the development of SAA has been held back while these pieces of the system fell into place.

Software developed in conformity with SAA on these systems will have a common user interface design which will allow users to access mainframes as easily as they access workstations. Only networks consisting of these components can conform to SAA at present.

SAA works by specifying the interfaces between the various components of the network, including the users themselves. In particular, there are specifications for interfaces between:

- the user and the terminal
- any two machines in the network.
- the programmer and the terminal

The SAA specification is similarly divided in three:

- Common User Access (CUA), the user interface specification
- Common Communication Services (CCS), the machine to machine interface
- Common Programming Interface (CPI), the programmer interface

CUA has the effect of giving all user-driven applications the same "feel". Each application will have the same keyboard functions and screen appearance, irrespective of where the user accesses the system: at a workstation, at a mid-range minicomputer or at the mainframe. This also means that any application can be run from any point on the network: workstation, mini or mainframe. The existing IBM PS/2 Personal Computer Presentation Manager software was written in accordance with CUA, and is a good example of a SAA-compatible interface.

CCS allows data to be transferred freely or "transparently" between components of the network. This allows users at any point of the network to access data or computing power anywhere else that the application requires: on the mainframe, on the mini or even on other terminals, with minimal difficulty. In particular, this facilitates the access of

centralised or distributed databases from workstations. This interface is based on IBM's SNA architecture, but reportedly includes support for the OSI protocols. More of this later.

CPI is less important for the function of applications, but is used to develop them.

SAA exists as a specification issued by IBM. It is not itself a piece of software, but it is implemented by software packages which allow the programmer to write programs which are consistent with SAA. At this time, only one SAA application has been released, IBM's OfficeVision. This is a suite of office applications which can be run either on the PS/2 workstation or on the 370 mainframe. The user need not even know where the application is running.

It is likely that SAA will encourage more users to use mainframes, which are IBM's bread and butter line, so the establishment of SAA is good sense from IBM's point of view. What better way of encouraging the use of mainframes than making them look like the workstations which most users are familiar with? SAA will have the effect of breaking down the existing barriers between the mainframe, mini and workstation worlds. This is a distinct advantage in a large network.

SAA and OSI:

The part of SAA which is, in principle, subject to the OSI standard is CCS, the machine-machine communications interface. CCS is based on SNA, and is therefore not OSI-compatible. But because CCS is based on SNA, moves towards the provision of SNA-based gateways to OSI will allow SAA applications to access non-SNA networks.

UNIX and SAA:

There is at present a lot of competition to get the UNIX operating system onto mainframe computers. Amdahl Corporation is the present leader, but IBM is also very active. Customers have been attracted to UNIX because of the availability of such applications as advanced databases and fourth-generation application development packages running on UNIX. UNIX is also regarded as an "open" operating system whose features are available to all.

This clear picture has been muddied by the emergence of two camps in the UNIX world. The Open Software Foundation, led by IBM and DEC, disagrees with Sun and AT&T (UNIX's creator) about standards for the extensions of UNIX which are required for the mainframe environment. IBM has issued its own UNIX which runs on the IBM System/370 mainframe, called AIX/370, and is pushing for UNIX to be developed according to the standards set by the Institute of Electrical and Electronics Engineers, titled Posix. Meanwhile, IBM spokesmen have said that where UNIX standard doesn't specify a function, e.g. the important database area, they will push AIX in the SAA direction.

This makes sense from IBM's point of view because of their commitment to SAA, but there is the danger that the UNIX standard will be too closely linked to IBM, particularly SAA. IBM is sending conflicting signals about the relationship between AIX and SAA. It appears that they will share common interfaces eventually, allowing SAA-compliant applications to be incorporated into AIX on the 370 and the PS/2. IBM is expected to announce a version of AIX for the PS/2 next month, and it will be interesting to see if there will be a version of AIX for the AS/400. Then AIX would be available on all of the SAA systems, allowing AIX and SAA-compliant applications to be seamlessly