

- b. Planning Time-scales. Updated planning time-scales for industrialization and development.
- c. Planned date of commissioning. This serves as a revision/update of the dates proposed in the project study, ie, the date on which the first system/s can be organisationally employed and the date when the requirement is expected to be satisfied.
- d. Update of the objective dates and expected duration of the various phases with emphasis on the acquisition plan.
5. An updated Security & Media Plan (to Section 1, Chapter 6 and Annexure 15) must be attached.

6. Memorandum of Understanding (MoU) between the SANDF project management team and all internally and externally involved parties, whether they be Armscor, PWD, HRSC (DMPU) or other projects that may be producing suitable sub-systems, is to be compiled and attached to the Dev Plan.

PART III : TECHNICAL REQUIREMENTS

7. The following is addressed here :
- a. The technical requirements as reflected in the B- specifications of the CI's are to be attached to his plan, or referred to with the assurance that the correct configuration status is quoted.
- b. For control purposes, an updated MRI reflecting the title and status of all project relevant documentation is to be included in all cases.

NOTE: Where customer furnished equipment (CFE) is applicable, a list, with current configuration status, is to be included, particularly where items required by developers for integration purposes, are involved.

PART IV : LOGISTIC REQUIREMENTS (ILSP – 2 AND SP – 2)

8. The logistic results of the definition phase (project study phase) are to be included and referred to as SP-2.
9. All logistical support requirements contained in Section 1, Chapter 3, ILS & Log 9 and 10 Pamphlet 1, Part 8 – Integrated Logistic Support must be addressed here. These include:
- a. Maintenance planning (to tasks and organisations).
- b. Support- and test equipment for all levels of user repair.
- c. Supply support (to all consumables, parts and repair assemblies).
- d. Reliability- and maintainability requirements (for detail refer Section 1, Chapter 3, ILS and RSA-MIL-STD-105).
- e. Packaging, handling, preservation, storage and transport for both user- and product system as well as for the logistic support thereof.

- f. Technical data such as codification and other technical publications (law specifications) that may be necessary for the operation of the system.
- g. Infrastructure requirements such as terrain, buildings, roads, airfields, structures, etc, that are required for the total life-cycle of the system.
- h. Personnel and training (to number and caliber of persons required, proficiency levels, specialties, training facilities and –material).
10. Computer resource support (hard- and software) as required during the procurement and operation of the system, eg, a computer based maintenance system. All interfaces to existing info systems required as well as standard of data required for the new maintenance system.

ANNEXURE 6
TO APPENDIX N
TO JDP/ACQ NO 5/03

GUIDELINES FOR THE COMPOSITION OF AN ACQUISITION PLAN (AP)

GENERAL

1. The AP is compiled by the user as an output of the acquisition study (AS) conducted by Armscor. This represents the "ACQUISITION DECISION" which inherently includes the employment and support of the equipment throughout its envisaged life-span. The acquisition decision is approved by senior management (non-cardinal programmes) and top management (cardinal programme) and, like the staff target, is a NON NEGOTIABLE document.

2. Aspects contained in the Section 1, Chapter 2C, Function 9 & 10 must be addressed in this document. The example below serves as a comprehensive example that may be used by project officers as they see fit.

AIM

3. The aim of the decision is to confirm that the requirements stated in the functional user requirement statement (FURS), the logistical user requirement statement (LURS), the solution contained in the project study report and as technically circumscribed in the various specifications, will satisfy the client's operational requirement.

SCOPE

4. The AP consists primarily of an introduction, prime item description, project management-, technical-, logistic- and personnel requirements.

NOTE: Where certain aspects have remained unchanged and have already been addressed in the staff requirement or project study report, they only have to be referred to in this document.

EXAMPLE OF A PROJECT ACQUISITION PLAN SECURITY CLASSIFICATION

File Reference

Telephone : 986-1234

Address

Telefax : 986-4321

Enquiries : Lt Col I.M. Admino

Date

PROJECT (CODE WORD)/SUB-PROJECT (CODE WORD): ACQUISITION PLAN: THE ACQUISITION OF A

PART I : INTRODUCTION

1. The introduction gives an overview of the project up to and including the product baseline. The following is to be confirmed here:
 - a. The validity of the results of the project study report.
 - b. That the requirements stated in the FURS and LURS (Staff Requirement) are still valid.
 - c. That the configuration status of the documentation is valid for acquisition.
 - d. That the tests and evaluation has been carried out satisfactorily (If applicable) and documented in accordance with the requirements of the A- and B-specifications.
2. The introduction is also to include a description of the product system to be manufactured as well as numbers to be produced and possible generations to be manufactured in phases.

PART II : PROJECT MANAGEMENT REQUIREMENTS (PMR)

3. The PMR gives a projection of the future course of the project. The following may be included here:
 - a. All background, requirements and instructions to, or required by any individual, department or party to manage the project effectively or to ensure smooth progress.
 - b. Tactics for the acquisition phase.
 - c. Internal and external organisations those are to be tasked, including requirements for which they will be tasked.
 - d. Confirmation that the industry to be contracted for the execution of acquisition is the optimum one and that all such intended contracts have been reviewed by the user to determine acceptability.
 - e. Number of sub-projects with interface and financial allocations.

- f. Broad work breakdown structure.
- g. Responsibility matrix.
- h. Project milestones.
- i. Envisaged deliverables for the acquisition phase.
- j. A graphic representation of the project management plan with an exposition of activities coupled to time-scales and finances. Examples of activities that can be addressed here are development, industrialization, production, acceptance, commissioning, handing over the system from the project officer to the system manager, etc.

4. Financial Requirements. As far as possible, the following that are applicable to the industrialization-, production- and operational phases are to be included here:

- a. Acquisition costs of the user system and of the product system.
- b. Estimated life cycle costs (LSC) as per sub-par 5.a. based on South African National Defence Force Manual for Products System Management Document No 05727-800-008 (not yet promulgated).
- c. Unit cost of the primary equipment.
- d. Project management costs.
- e. Estimated logistic support costs for non-recurrent and running costs (current R values) for all three of the abovementioned phases.
- f. Financial objective, absolute ceiling and any other restrictions wrt unit costs or LSC.
- g. Confirmation that the funds are on budget and on which account, and if not, from where, when and in what manner is the funding to be transferred. This applies to all three phases mentioned in par 4.
- h. Confirmation that the funds expended in the preceding phase did not exceed the financial authority and were used exclusively for the objectives of that phase.
- i. The costs of diverse items also have to be addressed by the person responsible for the budget, whether through the project or by another party. Examples include:
 - i. Optional and additional on board equipment such as radios, rescue equipment, etc.
 - ii. Additional operational support equipment such as cranes, tractors, fire tenders, boats, etc.
 - iii. Weapons and mobilization ammunition.
 - iv. Codification and cataloguing.

- v. Installations and modifications.
- vi. Supervision and inspections.
- vii. Bank guaranties, price escalations and interest.
- viii. Evaluation and commissioning costs.
- ix. Special clothing.
- x. Delivery costs (packaging, shipping, insurance).
- xi. Travel and subsistence for special missions.
- xii. Capital investments.
- xiii. Technical documentation and data.

j. How and when the transfer from 02 to 01 funding will take place (if required).

5. Time-scales. Indications for the following are to be given:

- a. Time-scales and milestones for the industrialisation- and production phases.
- b. Time-scale for production phases if more than one generation of the system is to be built.
- c. Planned date of commissioning and when the system will be fully operationally tested and accepted.
- d. Operational life expectancy of the user system and projected first big modernization.
- e. Time-scale for the finalisation of deployment doctrine.

6. An updated Security & Media Plan its Section 1, Chapter 6 and Annexure 15 must be attached.

7. A Memorandum of Understanding (MoU) between the SANDF project management team and all internally and externally involved parties, whether they be Armscor, PWD, HRSC (DMPU) or other projects that may be producing suitable sub-systems, is to be compiled and attached to the AP.

PART III : TECHNICAL REQUIREMENTS

8. The following aspects are of importance:

- a. Specifications must be available for the whole system. These specifications are to include the necessary quality requirements as well as the agreed acceptance norms and procedures. These specifications are to be suitable for the request for tenders or initiation of contract negotiations.
- b. The objectives of any outstanding development work that is to be done during the production- or implementation phases, as well as estimated costs and time-

scales, are to be included.

- c. If applicable, the technical requirements as reflected in the C-, D- and E specifications are to be attached to this plan, or referred to with the assurance that the correct configuration status is quoted.
- d. An updated MRI reflecting the title and status of all project relevant documentation is to be included.
- e. A list consisting of items that comprises the system that are to be acquired, manufactured or purchased as complete assemblies or as CFE, is to be attached.

PART IV : LOGISTIC REQUIREMENTS

9. All logistical support requirements contained in Section 1, Chapter 3, ILS & Log 9 and 10 Pamphlet 1, Part 8 – Integrated Logistic Support, are to be addressed here. These include:

- a. Maintenance planning its tasks and organisations.
- b. Support- and test equipment for all levels of user repair.
- c. Supply support its all consumables, parts and repair assemblies.
- d. Reliability- and maintainability requirements (for detail refer to Section 1, Chapter 3, ILS and RSA-MIL-STD-105).
- e. Packaging, handling, preservation, storage and transport for both user- and product system as well as for the logistic support thereof.
- f. Technical documentation and data such as codification and other technical publications (iaw specifications) that may be necessary for the operation of the system.
- g. Particulars and costs of structures, where such construction does not qualify as a turn-key project, must be considered iaw the under-mentioned:
 - i. Purchase of ground and site preparation.
 - ii. Expansion of base facilities.
 - iii. Technical buildings such as, eg, hangars, stores, workshops, magazines, stop-walls, security fences, telephones and services.
 - iv. Administrative buildings such as, eg, offices, operations rooms and guard rooms.
 - v. Domestic buildings such as, eg, quarters, amenities, recreational- and sporting facilities, telephones, water, electricity and sanitation services.
- h. Confirm that the time-scales for the erection of the buildings and facilities is reconcilable with the delivery of the product system.

- i. In conjunction with C Log (D Facilities), confirm that no suitable existing facilities are at the disposal of or adaptable for the product system.
- j. Computer resource support (hard- and software) as required during the procurement and operation of the system, eg, a computer based maintenance system. All interfaces to existing info systems required as well as standard of data required for the new maintenance system.

PART V : PERSONNEL REQUIREMENTS

10. Personnel requirements during the production- and commissioning phases as well as the costs involved, are to be determined. The total personnel requirement as identified in the staff requirement and project study report is also to be reflected here for inclusion in the equipment acquisition plan so as to obtain a complete picture.

ANNEXURE 7
TO APPENDIX N
TO JDP/ACQ NO 5/03

PROJECT FINANCIAL BASELINE MANAGEMENT DOCUMENTATION

1. To provide some guidelines with regard to the financial baselines of armament acquisition projects, the following are relevant:

- a. A project can only realize expenditure / commitment once a financial ceiling has been allocated by the appropriate authority, e.g. AACB, AASB or AAC.
- b. Expenditure / commitment within the project financial ceiling can be restricted by "project phase" financial ceilings.
- c. A project can only realize expenditure / commitment once funding has been scheduled on the SCAMP.
- d. The allocation of funding on the SCAMP is no authority per se, for commitments / expenditures.

2. The process to follow would thus be to obtain a financial ceiling for the project based on the planned full project cost. In addition to the authority for expenditure, total project and/or project phase, funding must also be secured on the SCAMP. The funding on the SCAMP is used as the official allocation per project that is annually captured on the Financial Management System. Expenditure can now proceed for the in-year and commitment for the in-year plus three subsequent years.

3. To assist in the clarification of the financial baselines and subsequent audits, it is recommended that when requesting an amendment to a projects' financial baseline the following detail, as a minimum requirement, be submitted in a submission format:

FINANCIAL REQUIREMENTS

n. Project Financial Ceiling. The project has an authorised financial baseline ceiling of *RMxx,x* (2001 Rand Value), as approved by the Staff Target on 23 April 2001.

n1. The attached Red-light report indicates (2003 Rand Value) that the project has expended *RMx,xx* of the adjusted baseline of *RMxx,x* leaving a balance of *RMx,xx*.

n2. Project (Development etc.) Phase Financial Ceiling. The project has an authorised phase baseline ceiling of *RMxx,x* (2001 Rand Value), as approved by the Staff Target on 23 April 2001.

n3. A total of *RMxx,x* of the project phase ceiling of *RMx,xx* has been expended, leaving a balance of *RMx,xx* (2001 Rand Value).

n4. In order to utilise the above-mentioned financial baselines, the SCAMP scheduled the following funds for the project:

2003/04	2004/05	2005/06	2006/07
<i>RMx,xxx</i>	<i>RMx,xxx</i>	<i>RMx,xxx</i>	<i>RMx,xxx</i>

RECOMMENDATION / APPROVAL BY

n. The following is approved / recommended for approval:

n.....

n.....

n. The **project financial ceiling** be increased/decreased from the current *R00,000.00* (200? Rand Value) to *R000,000.00* (200? Rand Value).

n1. The **project phase financial ceiling** be increased/decreased from the from the current *R00,000.00* (200? Rand Value) to *R000,000.00* (200? Rand Value).

ANNEXURE 8
TO APPENDIX N
TO JDP/ACQ NO 2/04

GUIDELINES FOR THE MANAGEMENT OF MULTIPLE PRODUCTION PHASES DURING THE ACQUISITION PROCESS

GENERAL

1. A large number of projects, particularly those in the non-cardinal environment (to Section 1, Chapter 5), have production runs that are spread over a number of years and undergo numerous generation changes during this time (a common example is radios). It is thus evident that not all of the information furnished in the submission requesting approval of the Acquisition Plan (AP) may still be valid when a second production batch is authorised or a new generation of the same product system is produced. It is thus necessary to stipulate guidelines to regulate this process.

AIM

2. The aim of this document is to lay down guidelines for the management of multiple production phases during the acquisition process.

3. Definitions. For the purpose of this document, the following definitions will apply:

- a. Partial Acquisition Plan (PAP). This may be defined as an acquisition plan that in essence only addresses a portion of the total requirement.
- b. Multiple Phased Acquisition. This may be defined as production that takes place in batches or set quantities to allow for any development work or upgrading to a new generation between series production of the batches.
- c. Long Time-scale Acquisition. This may be defined as production of a large quantity of items, eg radios over a ten-year period, where progress is monitored on an annual basis and funding is approved per FY.

MILESTONE DOCUMENT

4. When single phase acquisition is part of a project strategy, a single document named the Acquisition Plan (AP) is submitted to the AACB for referral to the AASB or Minister (AAC), depending on the category of the project.

5. When contemplating a phased approach or long time-scale acquisition on the project, an acquisition document called the Partial Acquisition Plan (PAP) is submitted for approval. The PAP replaces the AP (used for a small production run or a single phase production program), yet in principle performs the same function. The guidelines for the AP are to be used for the compilation of the PAP.

6. The PAP, like the AP, is compiled by the user as an output of the Acquisition Study (AS) conducted by Armscor Section 2, Chapter 2C, Function 9. Like the AP, this also represents the "ACQUISITION DECISION" which inherently includes the employment and support of the equipment throughout its envisaged life span. This "acquisition decision" is approved by senior management (non-cardinal programs) and top management (cardinal program) and, like the Staff Target and Acquisition Plan, is a NON NEGOTIABLE document. This document is also made up of a number of documents, eg, Project Management

Requirements (PMR-3), system C-, D- and E type specification, acquisition requirements, etc. The logistic requirements are contained in the ILSP-3. Similarly, the contractor's ILSP is referred to as the ISP-3.

DIFFERENT APPROACHES

7. It is evident in the document that there are basically two approaches to this particular form of acquisition. Both will be discussed in the next paragraphs.

8. Long Time-scale Acquisition. When this approach to acquisition is the desirable course to follow, submit the PAP to the AASB in which authority is requested for:

- a. Authority to pursue this method of acquisition.
- b. In principle approval of the financial baseline (typically the ten year plan).
- c. Identification of the deliverables.
- d. Authority to spend the allocated funds for the next FY.
- e. Indication of when the final PAP is to be expected.

9. Multiple Phased Acquisition. With this approach to acquisition, a PAP in the form of the AP will have to be submitted prior to the production of each batch, including technical-, time-scale- and financial confirmations. A historic overview, quantities delivered to date and finances expended on all previous batches is to be included in the introduction. Authority requested must address only the time-scales, deliverables and financial implication of the batch in question. Any adjustment to the financial baseline is also to be included as an addendum to the PAP.

PARTIAL ACQUISITION PLAN - FORMAT

10. After the approval of the initial PAP by the AASB or minister (AAC), all successive acquisition will be authorised bmo a PAP. This PAP will enjoy the same status as an AP and authorise acquisition and financial expenditure for the next FY or batch.

11. Guide-lines for the Composition of a Partial Acquisition Plan (PAP)

- a. Kindly note that where class one changes are included in the PAP, these are to be dealt with in detail as per the guidelines in the AP. Should this document become cumbersome, an executive submission in the form of the Example of a Submission per the CSW Appendix E to Chapter 3 is to be attached as Appendix A to the PAP.
- b. Contents of the submission are to include system boundaries of the proposed system, an exposition of results obtained, selections made, financial and time-scale implications as well as decisions required.
- c. It is also important to confirm the validity of the production baseline prior to approval for the next group/batch/series.
- d. In general, it can be accepted that if there are no class one changes for the next production batch, an abbreviated document may be submitted just to make any minor changes visible.

APPROVAL PROCESS

12. Whether a project follows the long time-scale series production- or the multiple phases approach to acquisition, the PAP has to be, like the AP, approved at the level of the Secretary for Defence (AASB) or Ministerial level (AAC), depending on project category.

13. After approval of the initial PAP by the pre-determined authority, the successive PAPs may be approved on the level of the AASB. Strategic or sensitive projects may be referred to the AAC at the discretion of the chairman of the AASB.

ANNEXURE 9
TO APPENDIX N
TO JDP/ACQ NO 2/04

GUIDELINES FOR THE TEMPORARY OR PERMANENT CONCLUSION OF PROJECT ACTIVITIES

INTRODUCTION

1. For varying reasons, it may be decided to temporarily or permanently conclude project activities during the execution of such a project. When this situation arises, the under mentioned procedures for conclusion, deferment and/or termination of such activities, is to be adhered to. Refer to Section 2, Chapter 2G, Function 14 for further guidelines.

GENERAL

2. An anomaly between project conclusion and – termination arises when one is faced with the situation where the project "finishes" without satisfying the requirement in terms of quantities to be delivered as per the staff requirement. The common denominator is the system level 5 hardware delivered by Armscor that can be integrated for a measure of operational use on the system level 6 by the end-user. When a project has already commenced production and enough of the required systems to satisfy a level 7 system requirement (combat grouping) are in the SANDF's arsenal, the decision to terminate as a result of financial reasons, for example, may be regarded as a decision to conclude the project, irrespective of whether required force levels as per current force development plan are met. The submission of a closing report thus becomes the correct option as opposed to a termination report.

CASES

3. There are basically three cases in which an acquisition project may be deferred or finalized. These are discussed in detail on the following pages.

FIRST CASE: PROJECT COMPLETED AND THE SUBMISSION OF THE PROVISIONAL AND/OR FINAL CLOSING REPORT

4. Definition. A project is considered to be complete when the objectives for which the project was established, and as described in the contract, have been successfully attained.

5. Circumstances. For the purpose of this document, a project is considered completed when the SANDF milestone 4 has been reached in terms of the SHIP diagram (this represents the "operational decision"). However, before this decision can be taken, the following circumstances must prevail:

- a. The product system, as contracted to Armscor, must be qualified in all respects, delivered and accepted into service or placed in stores. The same is also true for all logistical elements that form part of the product system and is funded by the Special Defence Account (SD Acc). The only exception to this rule is the qualification of facilities required for major repairs and overhauls of the system as these may only occur some years after the operationalising of the system. Negligible outstanding logistical item still to be delivered may be recorded on the acceptance documentation.

- b. The user system, as contracted by the user to all other parties, must be satisfactorily delivered, accepted and put into service or stored. If unavoidable exceptions occur that require a lengthy period of time to complete, a plan of action for completion must be included on condition that no extra capital funding is required (over and above what is presently on budget).
- c. If it is the intention to produce a long series of product systems or products with no significant modifications in between, that is a phased approach to acquisition, the normal closing procedures only, are required.
- d. If, however, a long series of more than one generation of the product system or products is contemplated with significant development work (longer than six months) between each series, recommendations pertaining to the completion of the initial series must be included, while separate projects are to be registered and approved for the remainder.
- e. All accounts must be finalized except where initial spares are, according to contract, scheduled for delivery at a later stage.
- f. Guaranties and their warranty period need to be finalized and can be handled as normal day-to-day business activities.
- g. Outstanding delivery control problems should be at a minimum and are to be recorded in the closing report.

THE PROVISIONAL (PPCR) AND/OR FINAL CLOSING REPORT (FPCR)

6. A project is closed or finalised through the submission of a PCR and consists of the following:
- a. A short overview with respect to the aim, scope and historical progress of the project and includes lessons learned and useful recommendations that may be used on future projects.
 - b. Detail with respect to the product – and user system as indicated in subparagraph 6.a. above.
 - c. Confirmation that the product- and user system, as contracted to Armscor by means of the Memorandum of Understanding (MoU), has been satisfactorily completed and delivered in an operationally employable condition (a confirming document with listed exceptions is to be attached to the PPCR).
 - d. Planning for the submission of the FPCR (**Note that the purpose of the FPCR is to accommodate the final logistic qualification of the system that could occur long after the system has been handed over to the user.**)
 - e. A comprehensive financial report including completed activities, unspent money still on budget and an exposition of activities per phase planned for these funds. Detail of fruitless expenditure (if applicable) must also be reflected. See Annexure 1 for an example of a recommended layout for such a report.
 - f. Cancellation of project registration and archiving of the project documentation.
 - g. Any recommendations with respect to technology short-falls that occurred during

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- the project, or wider application of technology developed during the project.
- h. Confirmation that a person or organisation has been tasked with the responsibility for the overall management of the user system during the operational phase and that this person or organisation has in turn confirmed that the system is ready to be handed over to day-to-day management.
- i. Detail pertaining to delivery control problems and incidents.
- j. A certificate from the Inspector General DOD confirming that an audit of the project has been completed and that all activities and funding during the acquisition life cycle were authorized.
- k. A Red Light Report confirming that the authorised project financial ceiling was not exceeded.

SECOND CASE: PROJECT FROZEN/POSTPONED/TEMPORARILY STOPPED AND THE SUBMISSION OF THE DEFERMENT REPORT

7. Definition. A project is considered to be frozen or postponed when the project is stopped (also temporarily) before the objectives have been achieved, with the intention to recommence at a later stage.
8. Circumstances. One, or a combination of the following circumstances can result in a project being frozen, postponed or temporarily stopped:
- a. The inability to perform in accordance with the stipulated contract by one of the involved parties, namely, the SANDF, Armscor or the industry.
 - b. Shortage of suitable funding or other critical resources.
 - c. Change in the threat scenario.
 - d. If the priority with respect to the hardware requirement diminishes to such an extent that it becomes necessary to maintain the technological edge only.
9. Important considerations. The impact of the following must be thoroughly considered before a project is either frozen, postponed or temporarily stopped:
- a. The implication of the non-compliance of its commitments by the SANDF on either Armscor and/or contractors.
 - b. Compensation for the contractor as a result hereof.
 - c. Safe-keeping or disposal of already acquired material, including storage fees, preservation, stores control expenditures, security, and so on.
 - d. Loss of expertise and technical capability by all involved parties, whether it be people no longer being employed in the particular field, or people who leave the service.
 - e. Problems as a result of delays and the costs involved in re-starting work at a later stage (personnel recruitment, and/or re-allotment, training, facilities that have been used for other purposes in the interim, deterioration of material,

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information that goes missing, capital equipment that lies unutilised, and so on).

- f. The impact on other projects in all Arms of the Services and how this will be administered.
- g. Marketing possibilities of components in an advanced stage of development.

THE DEFERMENT REPORT

10. The submission must report on the following:
- a. Factors that gave rise to the freezing, postponement or temporary stoppage of the project.
 - b. Steps that will be taken should the project be reactivated as well as time-scales.
 - c. To what extent, if any, the operational requirement has been satisfied.
 - d. To what extent the force development plans are affected by this state of affairs.
 - e. Funds already expended and for what purpose.
 - f. Intended handling of remaining funds with due consideration to payments yet to be made on financial commitments.
 - g. Estimates of the amounts required for compensation and the stage of negotiations with contractors.
 - h. Legal aspects pertaining to losses incurred and/or potential losses that will be incurred.
 - i. Negotiations with treasury with respect to the fore mentioned.
 - j. Audit of acquired material in stores as well as that still on order as well as the decision with respect to ownership and employment of the material in question. An audit report is not considered necessary at this stage. However, should it be decided to terminate the project instead of re-activation, it becomes a requirement.
 - k. Completion and safekeeping of product documentation. The division of responsibilities for tasks arising from the decision to freeze, postpone or temporarily stop a project, must be clearly and unambiguously stated and accepted by both Armscor and the SANDF.
 - l. Expected date of re-activation, if possible.

THIRD CASE: PROJECT TERMINATION AND THE SUBMISSION OF THE TERMINATION REPORT

11. Definition. A project is considered terminated when it is cancelled before the objectives are achieved, and there is no intention of re-commencing the activities. The status of the project must be such that it falls outside the guidelines contained in paragraph 2 above.

12. Circums is. The following are the circumstances under which a project could be terminated:

- a. When a situation arises as discussed in the second case above, it may be decided not to re-commence the project.
- b. When the requirement for a capability is incorporated or included in a similar requirement statement such that both requirements are satisfied, or where it may be sensible to combine two requirements into one requirement statement.
- c. When it is determined that the requirement no longer exists, for example when there is a change in the threat environment that no longer justifies the existence of the project.
- d. When it is determined that the objective cannot be achieved or is unattainable, for technical or financial reasons.
- e. When political, strategic or financial considerations enforce termination.

13. Important Considerations. Thorough consideration must be given to the following aspects preceding the decision to terminate a project:

- a. The effect on Armscor and the contracted industry by the non-fulfilment of its project responsibilities by the SANDF.
- b. Compensation to the contractor for breach of contract.
- c. Employment, storage or disposal of equipment and material that has already been acquired, including storage fees, equipment control expenditures, security and so forth.
- d. Loss of expertise and technical capability by all involved parties.
- e. Loss of confidence and dwindling morale.
- f. Loss of operational capability.
- g. The impact on other projects in all the Arms of Service and how this is to be administered.
- h. Marketing opportunities for system components at an advanced stage of development.

THE TERMINATION REPORT

14. The submission is to address the following:
- a. Factors that gave rise to the termination.
 - b. To what extent, if any, the operational requirement has been satisfied.
 - c. Funds already expended as well as products delivered.
 - d. Intended use of remaining funds with consideration to outstanding accounts.

- e. Estimate of when all accounts will be finalised, enable the finalization of the project.
- f. Estimates for compensation and negotiations with contractors.
- g. Requirements for clarification of legal aspects.
- h. Requirements for negotiations with the Treasury.
- i. Audit of acquired material in stores and those still on order, as well as decisions pertaining to ownership and employment of the said material.
- j. Marketing or disposal of semi-manufactured materials, completed and semi-completed sub-assemblies as well as other capital equipment.
- k. Completion and custody of project documentation.
- l. An Audit report, (particularly wrt complex projects that have been in the acquisition phase for numerous years), is to be submitted along with the Termination Report.
- m. The division of responsibilities between the SANDF and Armscor with respect to all matters and tasks arising from the termination of the project, must be accepted by both parties.

ANNEXURE 10
TO APPENDIX N
TO JDP/ACQ NO 2/04

CHANGES TO APPROVED BASELINE DOCUMENTATION

1. All acquisition documentation is fundamentally based on the same model and thus incorporates basically the same type of data that has to be approved by management. This data can be categorized as set out below:
 - a. Strategic/political data. This normally implies a top management decision. Operational functionaries on the middle management level can be consulted in this decision-making.
 - b. Planning data. Includes time-scales, quantities, finances and management administration, normally implies operational/planning functionaries. Depending on the impact, top management may be consulted.
 - c. Technical data. Includes functional performance, design/development/manufacture and logistical support, normally implies technical functionaries.

AUTHORISING BODY

2. In principle, milestone documentation is re-submitted for approval to the same level of the original authorizing body, within the context of the above-mentioned (Refer to Section 1, Chapter 5 Project Management & Authorisation Forums).

GENERAL GUIDELINES

NOTE: Class 1 changes are the high level changes that effect the configuration to such an extent that functional requirements have to be adapted and financial limitations are exceeded.

NOTE: Class 2 changes are changes that fall within the delegation of the executor and thus do not effect high level requirements and financial limitations.

3. When the need arises to have approved documentation amended due to changing circumstances, the following general guidelines apply:
 - a. All project documentation, whether new or amended, is distributed to all permanent members of the AACB its current distribution lists.
 - b. When such changes have a strategic/political/operational impact, the amended document is to be re-submitted for approval to the approval directives and criteria applicable to the original document (an ostensibly class 1 change).
 - c. When such changes affect the approved project procedures described in the tactics for sequential phases, such as deviations from financial approvals, alterations to the number of product systems is to be re-submitted for approval to the approval directives and criteria applicable to the original document and in accordance with par 5 below (a class 1 change as above).
 - d. When such changes fundamentally affect the technical approach or logistic doctrine, the change is regarded as a Class 1 change and is to follow the above

procedure.

- e. When confronted with class 1 changes, the following procedure is to be followed to save time:
- i. Approvals for deviations are to be requested prior to making financial or other commitments.
 - ii. Requests for approvals are to be routed via the appropriate forums and are to include sufficient detail wrt background and the impact of the suggested solution to enable the decision maker to take the correct decision.
 - iii. When submitting the next successive staff document for approval, ensure that the approved amendments are incorporated.
 - iv. Depending on the impact of the change, ie, the level of approval involved, DAPD will inform the user accordingly so as to limit delays in the environment to a minimum. From the viewpoint of configuration management, after approval, the updated document reflects the date of written application by the user.

CLASSIFICATION HANDLING

4. For both class 1 and class 2 changes, the originator is responsible to place the document under configuration management so as to discriminate between the original and amended document/s. For the purposes of C SANDF control, the dates on the document are used for discrimination. Where re-submissions to the Acquisition Forums are not required (ostensibly class 2 changes), it is suggested that an internal method of control, eg, amendment 1, 2, etc, is used.

DEVIATION LIMITATIONS

5. For purposes of planning and control, limits to deviations of certain aspects are stipulated as set out below:

- a. Finances. With effect from 6 Nov 92, all financial deviations authorized under the "old" Log 12 Pam 2 Chapter 3 sub-par 9.a. were cancelled. The under-mentioned is the process to be followed with any financial deviations:
 - i. Financial Baseline. The financial baseline for a capital acquisition project is approved with the Staff Requirement. As the project progresses and the actual financial implications become accurate, this may have an effect on the authorized baseline. Forthwith, the financial baseline is to be re-affirmed or adjusted with the submission of the next request for baseline approval, ie, at the end or beginning of the next phase.
 - ii. Phase approval. This approval is granted preceding the commencement of a particular phase. Should it become evident that this authorisation may be exceeded, the relevant Service or Staff Division is to request phase adjustment **immediately**, irrespective of the progress during a particular phase.
- b. Time-scales. Where adjustments to the approved time-scales or the necessary shifting of milestones or objective dates does not fundamentally effect the

commissioning of the first operational product systems, no amended authorisation is required. Where, however, the commissioning is moved to the left or right by more than six months, authority must be obtained from the relevant acquisition forum. All planning documents such as the force structure plan, material plan, facilities plan, financial plan, etc, must be amended after approval.

- c. Quantities. Where changes to approved product systems- or prime equipment numbers have to be made, this normally implies a top management decision and as such, a detailed submission is to be submitted immediately.

NOTE: In cases where the project addresses the acquisition of product sub-systems and lower, it must be remembered that they form part of a greater system and may thus have an effect on at least the level of product system. In such cases, the same procedures are followed wrt the product system and the influence on the latter.

System Level 6 Technical Requirements. Where changes to the system level 6 technical requirements become necessary as a result of a changed threat, technological shortfall/breakthrough, etc, the case in hand with full implications that enable the authorising body to make a decision, must be brought to the attention of the relevant acquisition forum.

ANNEXURE 11
TO APPENDIX N
TO JDP/ACQ NO 2/04

GUIDELINES FOR THE COMPOSITION OF A MEMORANDUM OF UNDERSTANDING (MOU)

GENERAL

1. A Memorandum of Understanding (MoU) is that document whereby the SANDF contracts all internal and external parties with management interfaces to the project, such as Armscor for the product system, PWD for certain logistic support elements such as buildings and facilities, HRSC (DMPU) for manpower, and SITA for IT requirements. MoU's are to be included in all milestone documents so as to contract the foregoing parties for the following phase.

AIM

2. The aim of the MoU is to detail inputs, interactions and tangible outputs against set criteria.

SCOPE

3. A MoU consists primarily of a scope of agreement, organisations and role definitions, introduction, general responsibilities, specific responsibilities, security and the agreement. Any point of contention arising with the interpretation of the agreement, is to be clarified immediately and the results are to be recorded.

EXAMPLE OF A MEMORANDUM OF UNDERSTANDING

SECURITY CLASSIFICATION

MEMORANDUM

File Reference

Telephone	: 428 1234	Address
Telefax	: 428 4321	
Enquiries	: Lt Col I.M. Admino	
Project Officer	: Lt Col I.M. Projo	
System Manager	: Lt Col I.M. Mainteno	Date

MEMORANDUM OF UNDERSTANDING BETWEEN THE SA (ARM OF SERVICE) AND (PARTY, EG, ARMSCOR) FOR THE EXECUTION OF PROJECT (CODE WORD)/SUB-PROJECT (CODE WORD) (.....) PHASE

SCOPE OF AGREEMENT

1. This document addresses the interaction, procedures and responsibilities for the parties involved in this agreement, eg, between Armscor (department) for the execution of projectphase of the acquisition process and the SANDF project management.

ORGANISATION AND ROLE DEFINITION

2. On the one hand, the SANDF organisations and individuals involved in the execution of project are identified, and on the other, the responsible parties in Armscor and the industry down to the relevant system level.

INTRODUCTION

3. A concise description of the identified operational shortcoming in terms of the approved force structure plan.

4. Identify the specific phase and milestone documentation in which the project presently finds itself, represented by (document, eg, DS/C ACQ/C/302/6/A123 dd XX Sep 03) approved by (party, eg, AASB). State that the foregoing authority, inclusive of restrictions, eg, financial, time-scale or activity, authorises the initiation and execution of the following phase.

GENERAL RESPONSIBILITIES

5. The following serve as examples of aspects that should be addressed (specific detail of how each one will be addressed is to be given):

- Management of the presently contracted technical baseline up to the following technical baseline to the satisfaction of the approved SANDF staff documentation baseline.
- Control of the programme master plan in terms of planning and time-scales.
- Placing of contracts.

- d. Control of contract variation orders (CVO's).
- e. Quality assurance (level 5).
- f. Configuration- and interface specification control.
- g. Joint authorization of acceptance test procedures against the technical specifications.
- h. Joint signatory on acceptance certificates.
- i. Shipping and delivery control.
- j. Joint reporting to Armscor/SANDF management.
- k. Liaison with Armscor technical divisions.
- l. Corrective actions for deviations from master plan.
- m. Monthly reporting to the SANDF wrt technical-, cost- and schedule progress.
- n. Joint control of overseas visits.
- o. Control of project security wrt the industry.
- p. Finances
 - i. Joint budget and allocation of funds.
 - ii. Composition and submission of "White sheets".
 - iii. Audits of financial reports.
 - iv. Maintenance of financial records.
 - v. Certification of invoices and escalation for payment.
 - vi. Design to cost objectives.
 - vii. Detail pertaining to processes, FA Requirements, credit FA's ext.
 - viii. Compilation and control of planned cash flow.
 - ix. Deliverables, delivery control and ownership.
 - x. Certification that the costs of the delivered products and/or services are realistic and competitive.

SPECIFIC RESPONSIBILITIES

6. Below is a list of responsibilities applicable typically to Armscor during specific phases of the acquisition process. This is purely an example and is to be adapted in accordance with the phase that the project finds itself in.

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- 7. "During the execution of the system study as the run-up to the Development Plan, Armscor is responsible to:
 - a. Carry out a development study to determine how each of the CI's will be handled during the development phase.
 - b. Delivery of an updated MRI to the SANDF with the correct configuration of each of the applicable documents.
 - c. An updated risk analysis of the CI's that are intended for development.
 - d. Creation of a QA plan for the development phase.
 - e. Creation of a logistic plan."
- 8. "During the acquisition study as the run-up to the Acquisition Plan, Armscor is responsible for:
 - a. Determination of the manner and by which party, the product is to be manufactured, tested, accepted and integrated for delivery to the SANDF.
 - b. Delivery of an updated MRI to the SANDF with the correct configuration of each of the applicable documents.
 - c. Delivery of the logistical results of the development phase.
 - d. Delivery of the test and evaluation results of the development phase."
- 9. "During the industrialisation phase Armscor is responsible to:
 - a. Ensure that the production process is qualified by a system supplier or system house.
 - b. Compile a production contract for acceptance by the SANDF and industry.
 - c. Laying down criteria, procedures and tests for factory and system acceptance at all system levels.
 - d. Determine the cost of ownership of the product system."
- 10. "During the production phase, Armscor is responsible to:
 - a. Ensure that the phase is executed in accordance with a contract.
 - b. Ensure that the SANDF interests enjoy priority.
 - c. Integrate all parties' personnel and interest during production and change control."
- 11. "During the commissioning phase Armscor is responsible for:
 - a. Acceptance of the qualified product system(s) against the technical specifications and delivery to the SANDF.

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- b. Correct and complete finalisation of the acquisition contract.
 - c. Delivery of the final MRI that is to include, inter alia, the final lifecycle cost update for the product system(s).
 - d. Delivery of a suggested list of strategic materials for purposes of stockpiling."
12. "During the operational phase Armscor is responsible for:
- a. Provision of Logistics.
 - b. Maintenance of a database as agreed upon in with the SANDF."

SECURITY & MEDIA

13. An updated security & media plan must be maintained on a continuous basis for each phase in conjunction with the SANDF with special attention to procedures and responsibilities contained in Section 1, Chapter 6 and Annexure 15.

AGREEMENT

14. This document is to reflect the agreement that roles, delegations and responsibilities are valid with effect from date of signing. It must also indicate the period of validity of the agreement.

GUIDELINES FOR THE LETTER OF APPOINTMENT FOR A PROJECT OFFICER

1. The acquisition of material is handled as an approved acquisition project. By definition, a project is a planned undertaking of a unique nature over a limited time frame that is with a circumscribed beginning and ending to achieve a specific objective. In the case of armaments projects, this aim is to supply a complete armaments system that will satisfy a specific operational requirement as specified by a user. The execution of a project involves the co-ordinated co-operation of a number of organisations, disciplines and people within the SANDF, Armscor and the industry.
2. For reasons mentioned above, it is vital that:
 - a. A project is appointed after acceptance of the operational requirement.
 - b. Each project officer has the necessary qualifications and applicable experience.
 - c. Every project officer has the capability to carry out effective project management. He/she must therefore be fully seconded to DAPD for the duration of the project.
 - d. Where possible, one project officer only be utilised from the beginning to the end of a project to ensure continuity wrt liaison, co-ordination and feedback.
 - e. When project officers have to be replaced, and, depending on the complexity of the project, the necessary overlap and handing and taking over is to be effected.
 - f. The project officer be the integrative point of accountability for the project and, as such, is authorized to act accordingly. He must thus receive the applicable delegations in writing.
 - g. All pertinent and relevant documentation is to be retained on the project file by the project officer.
 - h. The project officer has the applicable security clearance.
3. The appointment of capable and trained project officers will ensure that :
 - a. The user's participation is promoted and maintained during the progress of the project.
 - b. Valuable knowledge and expertise will be exchanged between the manufacturer and user.
 - c. A high degree of co-ordination and liaison is achieved.
 - d. Continuity is effectively achieved during all phases of the project.
 - e. Knowledge that the project officer acquires can be used advantageously during his further career.

4. To provide more officers with the opportunity to acquire experience in project management, and to ensure the required continuity during all phases of the project, an officer should not be tasked with more than two consecutive projects.

5. Notwithstanding the proceeding and irrespective of whether Armscor or the SANDF (user) is responsible for the management of the project at any particular stage, the eventual accountability for the effective satisfaction of a requirement rests with the user.

EXAMINER OF A LETTER OF APPOINTMENT FOR A PROJECT OFFICER

C ARMY/D ARMS/302/6/GEN

Telephone :
Enquiries :

Address
Date

APPOINTMENT AS PROJECT OFFICER : NO: RANK: NAME:
CORPS:

Reference A : DODI ACQ/5/2003 Edition 2 Policy on the Acquisition of Armaments
B : JDP ACQ/2/2004 Process and Procedure for the Acquisition of Armaments –
DAP 1000
C : Log 9 & 10, Pamphlet 1-8 : Design and Development

APPOINTMENT

1. You are hereby appointed as project officer for project(name) wef(date)
You will fill this post until you are relieved of your duties in writing.

FUNCTIONS PER PHASE OF THE ACQUISITION PROCESS

2. Your task involves the effective management and control of the project, through all phases of the acquisition process
3. You must professionally carry out the activities as laid down in the acquisition policy, read together with relevant supporting policy, or have them so carried out
4. You must provide professional advice and guidance on relevant military matters to Armscor and the contracted Industry
5. You must maintain and promote good relations between all participating parties as outlined below.

PRIMARY FUNCTIONS

6. Your primary functions are
 - a. Carrying out a preliminary study and drawing up the Staff Target
 - b. Carrying out the functional study, in co-operation with the Armscor program manager and other organisations involved, and drawing up the Staff Requirement for submission to his director.
 - c. Coordinating all user system (level 6 and higher) activities as well as all user system/products system (level 6/5) inter-level activities with inter alia the designated capability manager.
 - d. Handing over all project deliverables to the products system manager in accordance with Section 2, Chapter 1, par 7 & 8.
 - e. Providing advice and guidance to the Armscor program manager on all relevant military aspects during the design and development of the product or system.

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5. Notwithstanding the proceeding and irrespective of whether Armscor or the SANDF (user) is responsible for the management of the project at any particular stage, the eventual accountability for the effective satisfaction of a requirement rests with the user.

EXAMPLE OF A LETTER OF APPOINTMENT FOR A PROJECT OFFICER

C ARMY/D ARMS/302/6/GEN

Telephone : _____ Address _____
 Enquiries : _____ Date _____

APPOINTMENT AS PROJECT OFFICER : NO: RANK: NAME:
 CORPS:

Reference A : DODI ACQ/5/2003 Edition 2 Policy on the Acquisition of Armaments
 B : JDP ACQ/2/2004 Process and Procedure for the Acquisition of Armaments –
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 - d. Handing over all project deliverables to the products system manager in accordance with Section 2, Chapter 1, par 7 & 8.
 - e. Providing advice and guidance to the Armscor program manager on all relevant military aspects during the design and development of the product or system.

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- f. Determining military requirements iro personnel, logistic and doctrine requirements for inclusion in the relevant documentation
- g. The professional handling of all aspects regarding project finances, including logistic and operational activities, insofar as it concerns the SA National Defence Force.

CONCEPT PHASE

7. Function 1: Preliminary Study (PreS)

- a. Description. Assist the CMIS Formation with the execution of an in-house clarification exercise wrt the operational requirement.
- b. Tasks. As part of the team, you are responsible for the following:
 - i. Investigate the existing shortcomings that led to the initiation of the new requirement (quantitatively and qualitatively).
 - ii. Perform the applicable mission-analyses to define the broad operational missions, which the new requirement is to satisfy.
 - iii. Define the operational environment in which the system will function.
 - iv. Determine the broad logistic implications of the new system;
 - v. Determine the first-order constraints within which solutions for the system should be sought after, with specific focus on time, finances and technology. Provision should also be made for solutions in which the originator of the requirement/s has no interest as a potential solution and should thus be eliminated from the rest of the project.
 - vi. Investigate possible interaction/interfaces with active projects in the DOD.

8. Function 2 : Staff Target (ST)

- a. Description. Assist CMIS Formation with the compilation of the ST and the subsequent submission thereof for approval.
- b. Tasks. As part of the team, you are responsible for the following:
 - i. Obtain commentary from directorates as prescribed in internal procedures, as well as authorization from the applicable Chief of the Service or Staff Division.
 - ii. After the above-mentioned approval has been obtained, you must ensure that the temporarily allocated code name is registered at the Inf Div (Info Sec) and the project is forthwith managed under that name and code.
 - iii. Subsequent to this, the Staff Target must be routed to DPAD with copies to all relevant Staff Divisions for comments/information. The under mentioned categories determine which Divisions receive copies :

The Operations Division (CD Ops Dev) for all projects

- (2) The Acquisition Division (CD Acquisition) for all projects. CDA inputs revolve around the compliance to prescribed project procedures, all logistical aspects, as well as quality control of the documents that task Armscor, so that the latter will be able to carry out their responsibilities bmo normal interaction with DAPD.
- (3) C Army (D Mun) for all projects where ammunition or explosives are applicable.
- (4) CMI (D ICT) for all projects involving computers (excluding embedded computers.)
- (5) Chief of Joint Support (C Log) for all higher order logistic related inputs.
- (6) Chief of Defence Staff (DMS) for all projects relating to labour saving aids.
- iv. The Staff Target (ST) is classified and submitted to the fora for either recommendation and/or approval according to policy. Approvals are granted on Sec Def, AASB or Ministerial (AAC) level ito the project's classification, being cardinal or non-cardinal. When approved/not approved, you must inform the user of the result for action, and the parties submitting inputs, for information.

9. Function 3 : Functional Study (FS)

a. Description

- i. In this study, functional requirements are generated for the user-system level, and where necessary, for the product-system level.
- ii. This study results in the functional baseline which includes the project management requirements (PMR-1), the functional user requirements specification (FURS-1), the logistic user requirements specification (LURS-1), memoranda of agreement whereby the SANDF aims to contract Armscor for the product-system, the Department of Public Works for the elements of logistic support (eg Buildings and facilities), and Personnel for manpower. The functional study also includes an executive summary containing a higher-level system description of that which is to be acquired, choices made, financial- and time-constraints and approvals required.

b. Tasks. As leader of the integrated project team, you are responsible for the following:

- i. Investigate the system concept on at least the level of user system, but where also required, the concept on product level with emphasis on the primary product that may comprise the user system.
- ii. Study the identified missions in depth to deduce comprehensive functional requirements of the products system with emphasis on the primary product.
- iii. Study the functional requirements in detail to deduce all employment user

performances of the products system with emphasis on the primary product. These user performances may be expressed in both qualitative and quantitative terms, the latter mentioned allows less room for faulty interpretation.

NOTE : User Performance. User performance is the employment performance required to achieve a user's objective.

- iv. Perform a detailed study of the functional requirements, in order to identify all user-achievements for the product-system, focusing on the primary product.
- v. Determine the project management requirements that will be necessary for the execution of the next phase. This includes, inter alia, the tactics for the following phase, the organisations that will be tasked, the number of sub-projects required with mutual interfaces, the broad work break down structure, the responsibility matrix, the top level project milestones, etc.
- vi. Determine the integrated logistic support requirements in accordance with the policy contained in the document referred to as Log 9 and 10, pamphlet 1, part 8. These logistical activities are known as the Logistic Study 1 (LS1).
- vii. Analyse the operational environment in detail in order to specify quantified environmental parameters (outside conditions) in which the system is to be employed. It should be noted that not all parts of the system would be exposed to the same outside conditions due to specific positioning within the system. For these parts, the designer is to deduce environments against which each of the parts will be exposed, and wherein the system can function within specification.
- viii. Determine the second order limitations within which the solutions for the system are to be sought, particularly wrt time, finances and technology.

NOTE: Value Analysis. Although individual user performances may, in general, be feasible, it is seldom possible to determine whether a large number of specified user performances can be converted into a workable, economical system without design activities. Synergism between laid down requirements, can only be determined by modelling and design that takes place at a later stage. Given that design trade-off actions between performances have to take place to achieve a synergistic and cost effective design, it is essential that the user weigh the laid down user performances (especially the more important ones) against one another to determine and stipulate the relative importance of each.

10. Function 4 : Staff Requirement (SR)

- a. **Description.** The drafting of a SR as a collection of the aspects analysed in the FS, and the submission of this SR for approval.
- b. **Tasks.** You are responsible for the following:
 - i. The drafting of the SR which must contain at least the following :
 - (1) Introduction.

- (2) Project Management Requirements (PM Req-1).
 - (3) Technical Requirements (FURS-1).
 - (4) Logistics Requirements (LURS-1).
 - (5) **Financial Requirements.** including estimated acquisition costs, estimated life cycle costs, estimated unit cost of the primary equipment, project management costs, estimated logistic support costs for non-recurrent and running costs, financial objective as well as absolute ceiling above which solutions to the SR will not be considered, confirmation that funds are on budget, on which account, and if not, from where, when and in what manner it is intended to acquire such monies and confirmation that funds expended in the preceding phase did not exceed the amounts authorized.
 - (6) Estimated Quantities.
 - (7) **Time - scales.** Indications wrt the planned date of commissioning as well as the expected timescales and objective dates for the different phases in the acquisition process with emphasis on the next phase.
 - (8) Tactics.
 - (9) Restrictions.
 - (10) Value System.
 - (11) Memoranda of Agreement.
 - (12) Executive Submission.
- ii. The submission for approval of the SR, according to policy and procedures.
 - iii. The design of a support concept once the SR has been drafted.
 - iv. The design of the user value system.

DEFINITION PHASE

11. Function 5 : Project Study (PS)

- a. **Description.** The determination of the most appropriate products system(s)/ solution(s) for the satisfaction of the staff requirement by weighing up/comparing various options against one another and documenting them in an A-Specification(s).
- b. **Tasks.** You are responsible for:
 - i. The investigation of all possible products system solutions that may be found, both in the form of completed designs or manufactured systems as well as in the form of concept designs, with preference for RSA products. These options should include "do nothing", the upgrading of existing systems, the development of new systems, or the purchasing of Military Off

the Shelf (MOTS) systems. At this stage there is no talk of physical models, technology demonstrators, etc. These solutions make use of, inter alia, specific available hardware choices on the various hierarchical levels of the system, by integrating them in system context subject to the following conditions :

- (1) That the user requirements contained in the Staff Requirement are conformed to. If deviations are vital, these are to fall within the set norms of the value system
 - (2) That the restrictions wrt administrative, logistical, financial, time-scale, manpower, quantities, technological or any other aspect as contained in the Staff Requirement are complied with.
 - (3) That the technology has been established to such an extent that the development time-scales are reasonably accurate and predictable and that the risk levels are acceptably low enough to bridge any outstanding technological gap within reasonable time.
- ii. Ensuring that all possible products system vendors are considered for the supply of the products systems. It is recommended that the services of proven system suppliers and system houses are used.
 - iii. Investigate the full implications of all the solutions its operational capabilities, quantities, life cycle costs, time-scales, manpower requirements, logistic - and other relevant considerations within the requirements and limitations laid down in the Staff Requirement.
 - iv. Investigate the optimum choice of products systems, system suppliers and system houses.
- c. During these investigations it could be found that in certain cases, the variables may be so vast and spread across so many system levels that option evaluation becomes extremely difficult. In such a case, one or more of the following methods may be used to facilitate option evaluation :
- i. Complete theoretical design (on paper) or mathematical simulation models may be used for the more practical combinations (physical development models and technology demonstrators excluded).
 - ii. Simplified models/moquettes may be used to practically evaluate the effects of certain variables.
- d. Option Identification. In order to explore the options of off-the-shelf procurement of existing , or development and acquisition of new essentially level 5/4 systems for evaluation by means of operational effectiveness vs cost studies, it is necessary for Armscor to obtain relevant information from industry by means of an RFI.
- e. Option Selection. The identified options to be presented in the PSR that follows, are to include options that covers the further extension of the life of existing systems bmo. enhanced maintenance (i.e.. No modification to the system), essentially level 3 upgrading of the existing system, off-the-shelf procurement of existing level 5/4systems, and development and acquisition of new level 5/4

ns. In order to facilitate this option selection process, a play-off between enhanced operational effectiveness vs cost needs to be performed. This is known as Combined Operational Effectiveness and Investment Appraisal (COEIA) (also known as Analysis of Alternatives) studies, but other similar methodologies may also be used.

12. Function 6 : Project Study Report (PSR)

- a. Description. The drafting of a PSR as a combination of the aspects investigated in the PS, and the submission of the PSR for approval.
- b. Tasks. You are responsible for the following:
 - i. The drafting of the PSR in accordance with policy and must contain at least the following :
 - (1) Introduction.
 - (2) Option Selection.
 - (3) Make/Buy or Upgrade Decision Recommendation.
 - (4) Specification.
 - (5) Logistics Elements.
 - (6) Manpower.
 - (7) Tactics.
 - (8) Security Plan.
 - (9) Memorandum of Agreement.
 - (10) Management Submission.
 - ii. The submission of this PSR for approval.

13. Possible Alternative Routes. The principle sequence of this policy makes provision for comprehensive development of systems. As seen above, the PSR could recommend either an upgrade, a development or a direct purchase of an existing system. The essential difference between an upgrade and a comprehensive development lies in the number of simultaneous system levels being developed. An upgrade primarily comprises integration development at the highest level of the system (level 5/4), whereas comprehensive development comprises both integration development at the highest level, combined with configuration item development at lower levels (level 4/3). In the above two cases, Function 7a (System Study (SS)) is to be performed as the next step, followed by Function 8 (DP). On the other hand, the direct purchase of a system ("Buy decision") implies that no development of significance is required, thus obviating the need for a development phase to be executed. In this case, Function 7b (Acquisition Study (AS) "Competitive Tender") is performed as the next step, followed by Function 10. This latter option where comprehensive development is not required, is the preferred route due to the lower performance, timescale and cost risk involved, as well as the fact that production cost is visible at an early stage.

14. Function 7a : System Study (SS)

- a. Description. Analysis of the selected concept products system as reflected in the "A" specification and, where necessary, to further define configuration items (CIs) by way of design activities in development specifications (B specification) and then to produce these specifications.
- b. Tasks. You are responsible for the following:
- i. Launching a logistic study LS-2 through interaction with Armscor and Industry, which draws up the LSP-2 in accordance with the requirements of the SANDF. The study generates inputs to the ILSP-2, which in turn directs activities during the development phase.
 - ii. Determining the logistic elements not provided by Armscor, such as human-related buildings and facilities and manning of the user system. With this goes an "A" specification for the said elements, and the necessary actions for the timeous acquisition of these elements are initiated with the Department of Public Works and the HR department of the DOD.
 - iii. Where applicable, client-furnished equipment is identified and brought into readiness for use during the development phase or for integration during the production phase.

15. Function 7b : Acquisition Study – Competitive Tender (ASCT)

- a. Description. The determination of the way acquisition of the products system is going to take place as well as the identification of the best suited vendor together with his fully defined product baseline solution
- b. Tasks. You are responsible for the following:
- i. Launching a logistic study, the so-called LS-3, by which the requirement from and interaction with contracted Industry is determined to enable Industry to draw up the SP-3 (or ISP-3 on products system level) in accordance with the requirements of the SANDF. A further object of the study is to generate the SANDF's ILSP-3 inputs, which in turn will direct the activities in the manufacturing phase.
 - ii. Organizing the tracking of logistic elements not provided by Armscor in order to ensure that the acquisition thereof does not become out of step with the products systems acquired by Armscor.
 - iii. Preparing the final operational test and evaluation (FOT & E) documentation for those tests that will be conducted under complete management of the user. These tests that places emphasis on human factors rather than on equipment, can also be seen as part of the force preparation activity of the specific user system and must not be confused with the manufacturers technical test and evaluation (TT & E), the object of which is primarily equipment orientated rather than human orientated, i.e.. to prove a system acceptable for delivery.

16. Function 8 : Development Plan (DP)

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- a. Description. The purpose of the development decision contained by implication in the Development Plan, is to confirm the configuration items identified for development of "B" specifications, the identified contractor responsible for the development, as well as the choice of existing system elements, and thus to grant approval that the development phase be executed.
- b. Tasks. You are responsible for the following:
- i. The drafting of the DP in accordance with policy and must contain at least the following :
 - (1) Introduction.
 - (2) Project Management Requirements.
 - (3) Technical Requirements.
 - (4) Logistic Requirements.
 - (5) Financial Requirements.
 - (6) Timescales. Indications for the timescales and milestones for the development phase, the updated planning timescales for industrialization and development and updated planned date of commissioning.
 - (7) Security Plan.
 - (8) Memoranda of Agreement.
 - ii. The submission of this DP for approval.

DESIGN DEVELOPMENT PHASE17. Function 9: Acquisition Study – Single Tender(ASST)

- a. Description. The further definition of the selected products system(s), in terms of which acquisition and manufacture can take place.
- b. Scope. During the ASST, the following activities are carried out :
- i. Development of the system takes place in accordance with the proposed development models .
 - ii. Consecutive technical test and evaluation (TT&E) and where appropriate, preliminary operational test and evaluation (POT&E).
 - iii. An Industrialization Study (IS) is launched to determine how and to what extent the products system is to be industrialized for purposes of production.
 - iv. A logistic study is carried out to compile logistic plans, namely the ILSP-3 and SP-3, in which logistic requirements for the production phase are to be realized.

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