CHAIRPERSON: Can we ask the witness to confirm that he's still under oath.

CAPT (SAN) JORDAN: I do.

CHAIRPERSON: Before we start maybe I should just announce that today we are going to sit only until lunchtime, from lunchtime we'll come back on Monday, we'll not sit until 16h00 today, so Advocate Sibeko you will have to arrange your things in such a manner that 13h00 we stop and we'll continue on Monday morning. Thank you.

ADV SIBEKO: We'll make our best endeavours to adhere to the time allocated for today's proceedings Chair. Captain Jordan, when we adjourned yesterday you were about to start with the slide dealing with your exposition on the confidence and knowledge building process when the acquisition projects are undertaken, do you recall?

CAPT (SAN) JORDAN: Chair, that is correct.

ADV SIBEKO: And ...

CHAIRPERSON: On which page will that be?

ADV SIBEKO: That would be on the numbered pages in the file containing the slides, it would be page 23. Thank you Chair. And this exposition you will be commencing with this morning is a follow-up on the broad acquisition process that you were describing at the end of yesterday's proceedings, is that correct?

CAPT (SAN) JORDAN: That is correct Chair.

ADV SIBEKO: And can we confirm that this process that we are still dealing with is one that is regulated by the Acquisition Policy VB1000?

CAPT (SAN) JORDAN: Chair that is correct, that is how it was regulated at the time.

ADV SIBEKO: You may then proceed with the testimony regarding the matters you will be dealing with today.

CAPT (SAN) JORDAN: Chair, yesterday I indicated a slide which showed how the process follows through in terms of the administrative documentation and what I would like to highlight this morning is that this process is a confidence and knowledge building process, it is also a risk reduction process, so as we proceed through the process starting at the top with the required operational capability it will be very early days in terms of the programme or the project and not much is known in any great depth about that capability when we start off.

As we move through the process the Department and ARMSCOR learns and gains confidence, they also reduce the risk in terms of the process, so the level of knowledge and confidence in terms of technical and logistic personnel, financial, risk and timescale and other implications increases as we pass or move through the process, so once the Staff Target is written we already then know a little bit more about the end result than we did when the required operational capability was written initially.

I would like to remind the Commission that the required operational capability is written in capability terms at very high level. As we move down through the process we drill further into each detail of the system to be acquired, so by the time the Staff Requirement is written the project team has drilled down into the system to be acquired to quite an extent where they have a clear understanding of the requirement in functional terms, in other words that means what the system must be capable and able to do and the environment in which the system will be functioning.

After the Staff Requirement they would normally issue a Request for Information to gain additional information which will assist the team to increase their level of knowledge, to identify the risk areas and to formulate some form of abatement for those risks. Once the project study is approved there is now a good understanding of the option to be pursued and that gets approved and they start with an acquisition study which culminates in an acquisition plan.

At this stage the level of knowledge is quite deep, however, once the contracts are signed the construction and the building process starts and the project team and any coopted person onto that team is onsite and they see the system being constructed and in observing that system being constructed they get to see the trial results, the test results, they get to see how things are being put together and the depth

of knowledge is increased to an even greater depth.

At the commissioning stage the personnel that is going to use and operate this system is attached to the system and at that stage they start learning how to operate the system which increases the level of knowledge even further. Once the operational phase starts the support and the maintenance and the logistics kicks in and we learn even to a greater depth what, how the system functions, how it works and what its implications are and by the time that we get to the closure of the project I would argue that the depth of knowledge is quite good, but then the system is being put into operation and it is used for 30 years and in that 30 or 40 years that it's being used much more will be learnt about this system and the maximum level of knowledge will have been attained by that time that this system is due to be replaced.

So, again in my testimony yesterday I indicated that this process is a structured process and it's primarily a risk reduction process and this slide and the explanation that I've just given expounds on that and demonstrates that in greater depth.

ADV SIBEKO: Just before you go back to, you go to the next slide would you be so kind as to refresh our memory as to what the different acronyms stand for?

CAPT (SAN) JORDAN: Chair, ROC is the Required Operational Capability, the ST indicates the Staff Target, the SR indicates

Staff Requirement, the PSR indicates a Project Study Report. AP indicates an Acquisition Plan and at the bottom of the triangle PCR indicates a Project Closure Report.

ADV SIBEKO: And again just before you go to the next slide may I ask you to turn your attention to the big bundle we dealt with yesterday which is Jordan-1, and if you could turn to page 228 of that bundle. Now you will see on page 228 of Jordan-1 there appears Chapter 3 at the top of that page "Acquisition Management Practice", do you see that?

CAPT (SAN) JORDAN: That is correct Chair.

ADV SIBEKO: Now that makes provision for the scope, the phases as, and progresses to set out the concepts of the phases. Would it be correct to say that the process that you have described is regulated by Chapter 3 of the VB1000?

CAPT (SAN) JORDAN: Chair, the process is regulated by the entire VB1000 including Chapter 3 which indicates the acquisition management practice.

ADV SIBEKO: And would you agree that that sets out in great detail what you have summarised in your evidence?

CAPT (SAN) JORDAN: Chair that is correct, this chapter will describe the process in much greater detail than that we have dealt with so far.

ADV SIBEKO: Alright. Will you also confirm if you run down to 229 at paragraph 3.2.2 which deals with Function 2 Staff Target, in there provision is made for the Staff Target being a

mandatory document in this process. Have a look at page 229, do you have page 229 at paragraph 3.2.2. There is Function 2, there's a subheading Function 2 dealing with Staff Target.

CAPT (SAN) JORDAN: Chair, that is correct. Paragraph 3.2.2 on the third, on the second last line on the page it indicates quite clearly that the Staff Target is a non-negotiable document.

ADV SIBEKO: May I ask you to read that paragraph commencing with the words: "The Staff Requirement is indicated ...", and so forth into the record please.

CAPT (SAN) JORDAN: Chair, the Staff Target is indicated in the ship diagram by Milestone 1A:

> *"This milestone represents the project decision and is regarded as the most important decision of the project and is a non-negotiable document of any project".*

ADV SIBEKO: Could you read that paragraph in its entirety?

CAPT (SAN) JORDAN: The next sentence says:

> *"The Staff Requirement ...".*

This, however, is an error in the document, it should read "Staff Target":

> *"The Staff Requirement is basically a summary of the results of the preliminary study containing an exposition of the desired operational missions, qualitative, the operational environment in which*

the system will be implemented, the operational performance required as well as a broader logistic support implications that may be expected. It is important that the entire user system be looked at with particular emphasis on alternatives arising from alternate doctrines as tested on terrain and in war games. The primary perspective is one of functional performance alternative. Although the Staff Requirement does not usually have immediate financial implications any financial data that may be available must be reflected in order to be fitted into the user's five year plan".

ADV SIBEKO: Would you confirm once again that any reference in that paragraph to Staff Requirement is in fact intended to mean Staff Target?

CAPT (SAN) JORDAN: That is correct Chair.

ADV SIBEKO: And as you pointed out in your evidence yesterday the Staff Target, the approval of the Staff Target indicates commencement of a project in the acquisition process.

CAPT (SAN) JORDAN: That is affirmative Chair.

ADV SIBEKO: Now may I ask you to turn to page 231 of that bundle. Towards the last bottom part of page 231 you will see there is a heading next to paragraph 4 that refers to: "The life cycle primary phase acquisition ARMSCOR activities with

outputs to, and activities of SA Defence Force". It sets out the scope, the concept phase and it refers to levels 5 and so on, could you just briefly explain what that entails in the acquisition process.

CAPT (SAN) JORDAN: Chair, during this phase a project study is undertaken by the ARMSCOR programme manager and the project officer in close cooperation where all possible conclusions are considered in terms of the functional performance, requirements developed to satisfy the requirements, prepare a concept design and an A-specification or which else could be referred to as a system specification, defining the product system, or B-specifications defining the product.

The result of the product study, project study are summarised and passed to the user in the arm of the service where the project officer is responsible for preparing a project study report in close cooperation with the ARMSCOR programme manager for submission to and consideration by the relevant decision making bodies.

ADV SIBEKO: Now having regard to the provisions of this paragraph 4, the policy, would it be fair to conclude that this document is also binding, or this policy is also binding on ARMSCOR?

CAPT (SAN) JORDAN: That is correct Chair.

ADV SIBEKO: Alright, you may then proceed to the next slide.

CAPT (SAN) JORDAN: Chair the intention now is to deal with each of these documents as we pass through the process in some detail. The concept phase normally formally starts with the statement of requirements has been, when the statement of requirements baseline has been reached. The arms of the service analyses the existing capabilities of the SANDF against capabilities required in order to fulfill its mandated roles and functions. From these deficiencies are identified and documented as required operational capabilities, these required operational capabilities are then prioritised to determine the order of precedence in which the capability gaps need to be addressed.

The required operational capability is thus then, or is thus the priority decision of the SANDF. The ROC has official status only within the user environment, in other words within the SANDF. An operational requirement around the broad system concept is generated and confirmed by the execution of a preliminary study by the user's planning division. Preliminary study is an SANDF classification or clarification with regards to the operational requirement.

The following aspects I've addressed in some detail; the current operation shortcomings are indicated in qualitative and quantitative terms. The broad operational missions are discussed, the operational environment is described, the broad logistic implications contained in the new

requirement are described, a first order estimate of overall restrictions within which the solutions are to be investigated, especially with regards to the standardisation requirements, time, finances and technology.

It also includes directions in which the user, in which the requirement initiator indicates that he has no interest in weighing up solutions and as such is to be omitted during the rest of the project. The preliminary study is executed by the user, in other words the SANDF, and the output is a Staff Target.

The confirmed statement of requirements is processed into a Staff Requirement by the user in accordance of a formal process, the Staff Target represents the project decision and is regarded as the most important decision of the project, and is a non-negotiable document in any project. The Staff Target is basically a summary of the results of the preliminary study containing an exposition of the desired operational missions in qualitative terms, the operational environment in which the system will be implemented, the operational performance that is required as well as the broader logistic support implications that may be expected.

Although the Staff Target does not usually have immediate financial implications any financial data that may be available must be reflected in order to be fitted into the user's five year plan as we've just read from the physical policy.

ADV SIBEKO: Just one second Captain. If in ... When you are dealing with the preliminary study in slide 70 you refer at some point to a first order estimate. Could you explain what a first order estimate is?

CAPT (SAN) JORDAN: Chair, if I can remind the Commissioner of the slide that I indicated, the green triangle slide where I indicated the confidence and knowledge building process, when we deal with this process, in the beginning of that process we have limited knowledge and we have limited confidence in the technical and the financial indications that we have. As I've described it's a confidence building process, so a first order estimate would relate to an estimate at the time when the Staff Target, "ST" on the slide, is indicated, and it shows that we have some information but that we at that stage do not yet have very good confidence in the figures and in the information that we have.

So that first order estimate would provide an indication of what could be expected but it can certainly not be regarded as accurate information at that stage because we still have to gain a lot of knowledge during the course of the process, knowledge that has to be gained in technical terms as well as in financial terms as well as in risk terms.

ADV SIBEKO: Thank you. You may proceed.

CAPT (SAN) JORDAN: Chair, now in more detail the Staff Target addresses the operational aim, the mission, the

systems are going to be used in, it describes the functions on the highest system level applicable, it describes the operational environment and by an operational environment it would mean typically in a ship scenario it would mean that we would describe the type of sea-state that the ship would need to be able to operate in and other environmental parameters that might be applicable.

It will describe the operational performance at the high level, again the logistic implications will be described, it will show, give a detailed description of the present system, what it comprises of, what this present system's shortcomings is, the reasons that gives rise, or gave rise to the new requirement and any restrictions that may be applicable. The total estimated, albeit with low confidence of the project ceiling, the project financial ceiling with a broad annual requirement that may be indicated. The Staff Requirement or the Staff Target at least will specifically ask for the appointment of a project officer to that project. Once the Staff ...

ADV SIBEKO: Just by way of example, and apologies for interrupting you, with regard to the acquisition of the submarines, just by way of example how would a Staff Target in respect of that project look like?

CAPT (SAN) JORDAN: Chair, I don't have a copy of the Staff Target for the submarines with me at the moment but it would

describe the submarine capability in high level terms, it will describe in capability terms what the submarine must be able to do, what the Navy would like to be able to achieve with this capability, it will describe where in what type of environment we will use the submarine, so it would indicate the sea conditions in which this vessel must be able to operate, it will indicate the temperature of the sea water that one can expect this vessel to operate in.

It will provide high level operational performance in terms of the range of this vessel and its endurance. It will give a high level indication in terms of how, in terms of logistic implications, how the Navy would like to be able to support the system. It will give us a description of what the existing submarine looked like and what the problem is with the existing submarine.

Now typically for the SDPP programme that would have indicated what the shortcomings of the existing submarines were and it would have pointed that the existing submarines at the time were nearing the end of their useful lives. The Staff Target would also have given an indication of what at that time one would have expected the project ceiling would have been for a project like this and it would clearly have asked for the project officer for this project to be appointed.

ADV SIBEKO: Upon approval is it a standard process that a

Staff Target would then be given a number for it to be identified?

CAPT (SAN) JORDAN: Normally staff targets, all these documents gets given a document number through which it gets identified but it is also identifiable by its title as well as by the file number that relates to the project and the date on which it is written, as well as the date on which it is finally approved.

ADV SIBEKO: You may then proceed to deal with your next slide.

CAPT (SAN) JORDAN: Once the Staff Target is approved the project team would now enter into a functional study and during this functional study the broad functional requirements are generated. The study results in the end in a staff requirement which contains the project management requirements for the project, it contains the functional User Requirement Statement, the logistic User Requirement Statement and this functional study also contains the management summary with a top level description of the system to be acquired and the choice is made, the financial and timescale implications as well as the approvals that are required.

The functional study is conducted by the user represented by the project officer and of course the team that is associated with the project officer in conjunction with ARMSCOR. The outcome of this functional study is a Staff Requirement. The functional study itself is an internal

clarification exercise with regards to the functional requirement and the following detail and aspects are appreciated and investigated in detail, and as I indicated yesterday that conducting this functional study is a rather time consuming process because it is done in some depth in an integrated fashion.

It describes the system concept on at least the level of the user system and if the Commission will recall yesterday I indicated that the user system level is level 6 in the system hierarchy, which is the lowest level at which the system is actually usable. It has a detailed, in-depth mission analysis, a detailed operational deployment or employment environmental analysis.

We now have second order limitations within which the solution of the, for which the system are to be sought, particularly with regards to time, finances and technology. Functional requirements appreciated in-depth to reduce all the employment user performances with the emphasis on the primary product. These are all expressed in qualitative and quantitative terms in this functional User Requirement Statement.

Similarly the integrated logistic support requirements are investigated and described in some detail. A formal process is followed for to change the Staff Target into a Staff Requirement, the primary object is to come to a first

choice of user system that could be realised within the broad parameters of cost, time and practicability. As the Staff Requirement serves as an input to the acquisition process it is essential that a value system be properly developed in order to avoid solutions being developed or obtained that will not be cost effective.

Because the acquisition of user system components such as personnel, facilities *et cetera* within the SANDF takes place in parallel to the acquisition of matériel systems from the industry the Staff Requirement must also indicate or must already integrate how the user system integration is to take place. The Staff Requirement as I've indicated before is drawn up by the user and represents the SANDF's concept decision. It contains a background sketch, a project management requirement is some depth, the technical requirement described in functional terms, including the user performances, it includes the logistic requirements in some detail.

By now they will have greater, a greater level of knowledge, so the financial requirements for this programme will, can be indicated in more depth, the timescale requirements can be indicated with better accuracy. The estimated quantities would be indicated, the high level project management approach will be described, any restrictions that the SANDF wants to place on the solution will be indicated and there will be a functional value system.

The Staff Requirement is normally accompanied by a memorandum of understanding which is written between the arm of the service, the Defence Matériel Division or the Defence Acquisition and Procurement Division at the time, and ARMSCOR. What this document does, it describes the delineation of responsibilities between the three entities.

ADV SIBEKO: Now Captain you have an example of a memorandum of understanding contemplated in that slide. In the bundle of documents, if I may ask you to turn to Jordan-2, have a look at page 657 of the bundle. Could you describe that document for the record?

CAPT (SAN) JORDAN: Chair, the document indicated on page 657 is an example of a memorandum of understanding and this particular one was the memorandum of understanding made and entered into between the Departmental Acquisition and Procurement Division and the South African Navy and the Armaments Corporation of South Africa for the acquisition of the patrol Corvette's and the submarines.

ADV SIBEKO: You stated in your evidence that one of the functions of that document is to delineate the roles played by the entities dealing with the project to locate the relevant section or paragraphs in that document which makes provision for what you stated.

CAPT (SAN) JORDAN: Chair, on page 666 of the same document or of the same bundle, it's page 4 of the same

document, at the top of the page section 3 "Acquisition Responsibilities of the Parties" is indicated in the title and then there is a paragraph 1 which reads as follows:

> *"The high level responsibilities of the parties is at Appendix 'B'. Within the context of the appendix the major responsibilities can be defined as follows; ...".*

And then it continues into paragraph, subparagraph (a), (b) and (c), subparagraph (a) dealing with the SA Navy's responsibilities, subparagraph (b) dealing with ARMSCOR and subparagraph (d) dealing with the DAPD, which is the Departmental Acquisition and Procurement Division.

ADV SIBEKO: Could you read paragraphs (a) and (b) into the record.

CAPT (SAN) JORDAN: Paragraph 9(a) subparagraph (a):

> "The SAN ...".

Which means SA Navy:

> *"... is responsible for defining the operational requirement, providing acquisition support to the project team, preparing the SAN environment, accepting the ship and submarine weapons system as delivered and applying it operationally. The SAN processes, structures and existing channels of command will give optimum support to the acquisition processes".*

Subparagraph (b):

> *"ARMSCOR in conjunction with the DAPD is responsible for managing the contracted acquisition programme, accepting the products from the contractor against the contractual terms and specifications and delivering it to the DAPD. The DAPD and ARMSCOR interact with the contractor according to the supply terms. Included in this is the responsibility, control and accountability for the expenditure, the reporting, budgeting against contractual obligations".*

ADV SIBEKO: Is it correct then that it would be in terms of this memorandum of understanding that the process would then include the interaction between the SANDF on the one hand and ARMSCOR on the other hand in the acquisition process?

CAPT (SAN) JORDAN: It will, Chair that is correct, it includes the SA Navy and ARMSCOR and as indicated by paragraph, subparagraph (c) there also the DAPD in this process.

ADV SIBEKO: And going forward the project would then be managed jointly by the Defence Force and ARMSCOR.

CAPT (SAN) JORDAN: That is correct Chair.

ADV SIBEKO: And this will become apparent in the slides that we'll be dealing with going forward, is that correct?

CAPT (SAN) JORDAN: That is correct Chair.

ADV SIBEKO: You may then proceed.

CAPT (SAN) JORDAN: Chair, once the staff requirement is approved it is formally handed over to ARMSCOR under a covering letter normally with the request that ARMSCOR continues or starts the project study. During the project study the following aspects are examined in some depth, all possible product system solutions that will ensure compliance with the user performances as contained in the Staff Requirement which ensures *inter alia*, and I may not have included all of them here, because it's a long list:

- The set restrictions as contained in the Staff Requirement are complied with.
- That the technology is developed and established to such an extent that development timescales can be predicted reasonably, accurately and risk levels are acceptably low.
- That all possible product suppliers who can be considered are taken into account and;
- That the full implications of all the possible solutions are taken into consideration in terms of the operational capabilities and all other requirements as contained in the Staff Requirement.
- That the optimum choice product systems, system suppliers and system houses has been

exercised.

This project study provides an option identification as well as an option selection and if the Commission will remember from yesterday I have indicated that this selection relates to do nothing, or an upgrade option or a make or a buy option. It also includes an A-specification more commonly known also as a system specification. The outcome of this project study is a project study report.

ADV SIBEKO: At what level of detail does the A-specification come?

CAPT (SAN) JORDAN: That A-specification relates to the functional User Requirement Statement. If I can remind the Commission that the functional User Requirement Statement is written in functional terms. This A-specification will now drill down into those functional terms and define the same requirement in one level deeper detail.

ADV SIBEKO: And could you give an example of what kind of functional terms would be contained in an A-system specification?

CAPT (SAN) JORDAN: The system specification would typically give an indication of the range that the vessel or the range and the endurance of the vessel, the type of manning that one can expect this vessel to, or the system that will be, the type of personnel that will be required for this system, it could provide an indication of the level of education of those people. There

are many other examples that I could use but to suffice to say that that is a reasonable example.

ADV SIBEKO: You may proceed to your next slide.

CAPT (SAN) JORDAN: Chair, during the course of the project study all aspects are investigated and evaluated to narrow down the choices. Now if I can remind you of the green triangle that I showed earlier we are now drilling down deeper into the system that we are going, intending to acquire, so we're investigating these things in more depth and we try and do it in a scientific and in a logical manner in order to make the most acceptable choice that will comply optimally with the stated requirements.

The purpose of this project study report which is compiled by the user is to summarise the results of the project study as executed by ARMSCOR, so we can see already that it becomes an integrated team effort so that the system decision may be made. At the same time this make or buy decision as we commonly call it is made, or is proposed at the product system level which primarily addresses the choice of the products.

The project study report contains the following; at first an introduction which is a confirmation that the operational requirement remains valid and unchanged, it narrows down the choices, a plan for executing the consecutive phases of the project including the manpower requirements are

indicated. If a development route is to be followed then the marketing of armaments and technology would be indicated, if it is a direct acquisition then that would not be, would not normally be indicated because the marketing of those armaments would not lie in our domain.

Associated with the project study report is an updated security plan and as we move through the process that security plan is continually updated. The memorandum of agreement between the user and the bodies concerned will be responsible for the supply of the user system will be attached, it may be that the document that we've just shortly before described, or it could be an update of that, and it would also include a management summary including the financial implications and the estimated life cycle costs.

Depending on the results of this project study report one may go directly to an acquisition plan to procurement of a total system, products or matériels if the equipment development, test and evaluation has already been completed. When the equipment or parts thereof must be developed the next step is a systems study.

ADV SIBEKO: Now before we go to deal with the system study could you just briefly explain what a security plan is?

CAPT (SAN) JORDAN: Chair, the security plan would typically contain details of how the project team is to deal with the security aspects of the project. This would indicate the project

office security, how documents are to be treated, how the project office would be secured in security terms so that it won't be open access to all and sundry. If there are sensitive aspects to the project by example typically electronic warfare systems, how those would be dealt with, so by enlarge a plan indicating how we deal with internal security matters as relating to the project

ADV SIBEKO: Thank you, you may proceed to your next slide.

CAPT (SAN) JORDAN: Chair, the systems study as it's indicated in the policy would then follow the route of development and the purpose of this system study is to analyse the selected product system as reflected in the high level specifications as we've previously described it and where necessary to further define the items that make up the system in lower level development specifications.

The development plan is drawn up by the user and represents the SANDF's development decision but this is only done if we follow the development route. The purpose of this decision is to confirm the items identified for development and the specifications for these items, the identified body responsible for the development as well as the choice if the existing system elements and thus to grant approval that the development phase may be executed. The development plan is a summary of the results of the system study.

The development phase commences when the

allocated baseline has been attained and the necessary approvals for the development plan has been given. This development plan terminates when the product baseline has been attained and the product baseline is the manufacturing decision and is made by the user in cooperation with the other SANDF bodies and ARMSCOR in particular. The Strategic Defence Package Programme did not need to follow this development path.

If we move on to the acquisition study the object of this acquisition study is to further define the selected product systems as reflected at the various levels of specifications by way of further development into more detailed specifications in terms of which the acquisition and manufacturing can take place, so I think at this point one can see clearly how we are moving down the triangle that I've described earlier.

During the course of the acquisition study industry is responsible for executing a model study based on the specifications for all levels of the product system, they conduct the factory test and evaluation on the different models, they conduct an industrialisation study if this is necessary and they compile a support plan based on the inputs from the SANDF as well as from the logistic support analysis.

Where a system supplier is appointed that system supplier would be responsible for the integration of the logistics support plans of the subcontractors that may be

appointed. ARMSCOR in turn is responsible for executing the acquisition study as to the manner in which and by whom the products will be manufactured, tested, accepted and integrated to supply an acceptable product system in accordance with the SANDF's requirement. A detailed financial plan is drawn up, indicating funds, funding, milestones and timescales as well as updated life cycle costs, providing the SANDF with an updated master record index.

Now I just want to stop with this master record index quickly because we haven't described it before, it is a record of documentation that exists on the project. At this stage it refers primarily to the administrative documentation and then also to the technical documentation that emerges during the course of the project. This document is a living document and it is updated continually during the course of the process.

Okay, this detailed plan also includes the supplying of the logistic results contained in the integrated logistic support plan and it applies the technical test and evaluation results on the product system level, so as we move down the triangle that I've described before one can see now how we are gaining knowledge and confidence in the system that is being specified and/or that is to be developed.

The SANDF in turn is responsible for launching a logistics study by which the requirements and interaction with

contracted industry is determined. A further object of this study is to generate the SANDF's logistic inputs which in turn will direct the activities during the manufacturing phase, they are responsible for organising and tracking of logistic elements not provided by ARMSCOR in order to ensure that the acquisition thereof remains instead with the product systems acquired by ARMSCOR.

The SANDF is responsible for ensuring that the system development keeps pace with the possible change in the threat scenario so that the development can be redirected timeously or be ceased depending on the circumstances. It's responsible for preparing the development test and evaluation documentation for those tests that will be conducted under complete management of the user.

This task, however, cannot be fully completed in this phase and will thus spill over into the industrialisation and the manufacturing phases. These tests can also be seen as part of the force preparation activity of the specific user system and must not be confused with the manufacturer's test, technical test and evaluation to prove a system is acceptable for delivery.

The acquisition plan is then drawn up by the user based on the acquisition study executed by ARMSCOR and represents the SANDF's manufacturing decision. As the largest point or largest portion of the project funds is usually tied up

with this decision this milestone is as a matter of principle approved by top management and together with the Staff Target is the non-negotiable document of any project.

ADV SIBEKO: When you refer to top management approving the acquisition plan, exactly who are you referring to in the hierarchy of the department?

CAPT (SAN) JORDAN: Chair later on in the course of this testimony I will show slides that indicate the approval levels but suffice to say for, to answer the question that cardinal projects are approved by the Armament Acquisition Council which is normally chaired by the Minister of Defence. Non-cardinal projects being less complex and generally much smaller with less risk are approved at one level lower and that is approved at the level of the Armaments Acquisition Steering Board which is chaired by the Secretary for Defence.

ADV SIBEKO: You may proceed then to your next slide.

CAPT (SAN) JORDAN: Chair, the purpose of the decision is to confirm that the requirements contained in the functional user Requirement Statement and the solutions set out in the project study report will satisfy the client's current operational requirement, it is to confirm that the manufacturing data package as reflected in the specifications and the drawings are complete and correct to manufacture the required system. It is to confirm that the proposed manufacturer has been accepted, that the integrated logistic support requirements have been

detailed fully to satisfy the required operational requirement and it is to confirm that the proposed financial and schedule aspects are acceptable. The acquisition plan is basically a summary of the results of the acquisition study and contains the following:

- Confirmation that the project study and the requirements contained in the functional user requirement statement are still valid.
- That the financial limits for the phase have not been exceeded and a description of the products that will be manufactured, including the number and possible generations that will be manufactured in the phases.
- It indicates the project management requirements, it indicates the technical requirements reflected in the specifications as well as the logistic requirements for integrated logistic support elements not allocated to ARMSCOR such as buildings and facilities.
- It must be confirmed that the timescale for the erection thereof is meaningfully integrated with the supply of the product system.
- It contains the updated financial requirements and it contains reasonably fixed indications of the timescales of the programme.

- It also contains an updated planned commissioning date.
- It furthermore gives an indication of the expected operational life of this user system with an estimation of the expected time for the first major modernisation.
- It contains yet again an updated security plan, yet again an updated memorandum of agreement with the bodies involved, as well as a management summary.

Can we just go back to the previous slide please? I just want to expand a little bit on what was said here. Complex systems like the systems acquired for the Navy, typically the ships and the submarines have an expected life cycle and during that life cycle one can expect that at some point in that life cycle that system will require a major upgrade or modernisation. Now to use an example typically for the submarines that would come at about 16 years after the initial delivery, so one would want to know when that is and what it means and that's why this plan provides an indication of when that could be expected. The next slide please.

ADV SIBEKO: Perhaps before you go to the next slide may I ask you to turn to page 238 of Jordan-1.

CAPT (SAN) JORDAN: I have page 238 Chair.

ADV SIBEKO: You will see that 238 is still part of the VB1000

dealing at paragraph 4.4.2 with Function 10, the acquisition plan. The slide presentation you made summarises the paragraph in the VB1000, is that correct?

CAPT (SAN) JORDAN: That is correct Chair.

ADV SIBEKO: Can I ask you to read that first paragraph on, starting with: "The acquisition ..." up to just the sentence, about the last sentence of that paragraph.

CAPT (SAN) JORDAN: Chair, I read from the policy Issue 2 paragraph 4.4.2 Function 10: "The Acquisition Plan":

> *"The acquisition plan is drawn up by the user based on the acquisition study executed by ARMSCOR and represents the SA Defence Force Milestone 2A visa vie the manufacturing decision (ARMSCOR Milestone 2A). As the largest portion of the project funds is usually tied up with this decision this milestone is as a matter of principle approved by top management and together with the Staff Target is the non-negotiable document of any project. The purpose of this decision is to confirm that the requirements contained in the functional user requirement of statement (indistinct) and the solutions set out in the project study report will satisfy the client's current operational requirement.*
>
> - *That the manufacturing database as reflected in the C, D, and E specifications*

and the drawings is complete and correct to manufacture the requirement system.

- *That a proposed manufacturer has been accepted, that the integrated logistics support requirements have been detailed fully to satisfy the required operational requirement and that the proposed financial and schedule aspects are acceptable.*

The acquisition plan is basically a summary of the results of the acquisition study and contains the following;…".

And then it continues to describe as I have explained on the slides.

ADV SIBEKO: Now what is the manufacturing data reflected and the C, D and E specifications and drawings according to your knowledge?

CAPT (SAN) JORDAN: Chair, I take the Commission back to my triangle of gaining knowledge. As we move down this process we drill down into those functional specifications, I've indicated that during the course of the project study report we get the A, or system specification, now that still specifies the system at level 6 which is the functional user, the user system level. When this specification is handed over to the contractors they during the development phase will develop

those specifications into deeper level specifications or if a straight acquisition is done the system supplier will already have deeper level specifications.

Now if I can relate that by explanation the system specification will describe the product at that level but that product contains a number of subsystems, each of those subsystems will have their own specifications and those subsystems will be made up of further subsystems and each of those sub-subsystems will have their own detailed specifications. Now these specifications in greater depth are referred to C, D and E-Specifications and the deeper this level of specification is, the deeper or the further the number or the letter indicating that specification will go down to. So an E-Specification would indicate a very, very detailed technical specification whereas a D-Specification would indicate a system, a subsystem's relatively high level specification.

ADV SIBEKO: Now Captain could you try and just simplify this whole concept of product and system, subsystem, sub-subsystem just by making a graphic example that would explain what you say (indistinct). I would imagine the product would be a submarine, is that correct?

CAPT (SAN) JORDAN: Chair, I just need a second to find the right slide and direct the ... Can you bring up the slide that indicates the system hierarchy? It would be slide 47, there we go. Chair, when we look at this diagram of the system

hierarchy and ...

CHAIRPERSON: Just hold on, on which page will that be?

JUDGE MUSI: 47.

ADV SIBEKO: Page 47.

CHAIRPERSON: 47.

ADV SIBEKO: Chair, I believe it's page 16, slide 47.

CAPT (SAN) JORDAN: Chair, when we look at this system hierarchy which I explained yesterday that A-Specification would be written at the level 6 user system level, so it would indicate the high level specification that the arm of the service will require and it would include some aspects pertaining to personnel, training and logistics. Then it is handed over and once it is handed over to the contractor the contractor would develop those specifications in much more detail, so one could see at the level 5 system we would have a deeper level specification and at a level 4 system, level 4 system the specification would even be deeper, so here we would typically start talking about a B-specification.

One could go even further and have deeper level specifications for lower level systems like machinery, like the electrical system, the radars, the gunnery systems onboard, and when we get down to E-Specifications then we're really looking at great depth and sometimes generally we do not deal with specifications at that depth, this would signify specifications at the level of level 2 or level 1 which would be,

it becomes too detailed, it is not of direct use to the Military.

ADV SIBEKO: And just finally on the acquisition plan the paragraph that you read into the record also recognises that the acquisition plan is a non-negotiable document of any project, could you expand on that?

CAPT (SAN) JORDAN: Chair that would mean that that document is a mandatory document and it has to be established and it has to be approved. There are two non-negotiable or mandatory documents in this process, the first document is the Staff Target which establishes the project and the second mandatory document in accordance with this process is the acquisition plan and it is a mandatory document because this is a document that provides the authority for the great bulk of the finances of that specific project to be expended.

ADV SIBEKO: Chair, would this be a convenient time for the tea adjournment?

CHAIRPERSON: Okay, we'll adjourn for 20 minutes. Thank you.

(Commission adjourns)

(Commission resumes)

CHAIRPERSON: Thank you.

ADV SIBEKO: Thank you Chair. May the witness be reminded that he is still under oath?

CAPT (SAN) JORDAN: I do.

CHAIRPERSON: Thank you.

ADV SIBEKO: Thank you Captain. When we adjourned you

were about to start discussing the industrialisation phase. You can continue from there.

CAPT (SAN) JORDAN: Chair the purpose of the industrialisation phase is to establish a manufacturing baseline for the matériel in terms of which industry can manufacture so that the system is produced that is in accordance with the user stated requirements. The industrialisation phase thus includes all activities between the product baseline and the manufacturing baseline. During this industrialisation phase the manufacturing processes of the industry are developed and qualified. Industrialisation phase is carried out mainly by industry with close interaction of the SANDF and ARMSCOR.

Now in terms of the industrialisation phase we will find that with the SDPP's industry was already industrialised since it was foreign industry and they were existing industry, so this phase would have been very, very minimal, if any work done during the course of the SDPP's.

ADV SIBEKO: Could you just explain briefly what you mean by the manufacturing baseline and the ... Yes, can you start with the manufacturing baseline and the product baseline?

CAPT (SAN) JORDAN: Chair, the product baseline indicates the set of documents, drawings, specifications against which the product will be manufactured, the manufacturing baseline would also then include the processes related to manufacturing within the industry.

ADV SIBEKO: Of what significance are these baselines to the acquisition process?

CAPT (SAN) JORDAN: Chair as I indicated in my testimony yesterday the concept of a baseline, it is a point at which a snapshot is taken of the system at a specific point in time which establishes the departure point for the next stage of the programme.

ADV SIBEKO: You may proceed then.

CAPT (SAN) JORDAN: Chair, the purpose of a manufacturing phase is to provide the qualification baseline for the user system in terms of which ARMSCOR and industry can qualify the system for acceptance at the matériel level. The SANDF can qualify the system for acceptance at the combat capability level which is that level 6 so that a user system can be supplied that complies fully with the requirements stated by the SANDF. The manufacturing phase thus includes all activities between the manufacturing baseline and the qualification baseline.

During manufacturing phase the product system is manufactured, erected, established by industry and ARMSCOR and the user system is established by the SANDF and the contracted parties. The manufacturing phase is executed mainly by industry with close interaction of the SANDF and ARMSCOR.

Industry contracted responsibilities during the

manufacturing phase is as follows, they manufacture, they are responsible for the manufacture and the procurement by subcontractors of all matériel representative of the products and the product systems as contracted by ARMSCOR. They are responsible for the integration of the product system components and for providing the integrated logistic support as contracted by ARMSCOR. They are responsible for preparing the test documentation against which integrated logistic support elements will be qualified and for preparing the factory test documentation against which mainly products and product systems will be qualified.

They are also responsible for keeping the master record index up to date for all relevant documents that can be supplied as contracted. ARMSCOR is responsible for ensuring that the manufacturing phase is carried out by the industry according to the contract and that the acquisition project is carried out according to the agreement as contained in the memorandum of agreement.

ARMSCOR is further responsible for ensuring that the interests of the SANDF as a client are accorded the necessary preference at all times, they are responsible for integrating the personnel and interests of the three main parties *visa vie* the SANDF, ARMSCOR and the industry, also known as the defence family, during all aspects of the manufacture and change control.

ADV SIBEKO: Now what do you mean when you say or when the policy states that one of the responsibilities that ARMSCOR is required to carry out is to ensure the interests of the SANDF (indistinct) clients are accorded the necessary preference at all times with emphasis on the phrase "necessary preference", if you could explain that please.

CAPT (SAN) JORDAN: Chair that means that it is required that the necessary priority is given to the SANDF's interests and a typical example of this could be in terms of change control as one might find that once the product is built it has a specific configuration and in simple terms there may be a valve or a gage that may be important and that is situated in a suboptimum place according to the existing design. We may then require that that valve or that gage be shifted to a more suitable position, these are things that only become visible once the item is built or the product is built and then a change control process would be required and consequently ARMSCOR would be required to provide the necessary, or to give the necessary priority to that change.

These changes are typically minor changes but, physically minor changes but they might be quite important changes in the sense that the citing of an item like a gage might be quite important in terms of, in operational terms.

ADV SIBEKO: Thank you, you may proceed to the next slide.

CAPT (SAN) JORDAN: Chair, in terms of the manufacturing

phase the SANDF is responsible for conducting the qualification study in cooperation with ARMSCOR and the manufacturing industry in order to determine precisely in which way the user system logistic support will be qualified. This consists of a complete plan with timescales, persons, organisations involved, qualification norms, final operational test and evaluation documentation *et cetera*.

The final operational test and evaluation is aimed to confirm the compliance with the operational requirements set in the functional User Requirement Statement and the logistic requirements set out in the logistic User Requirement Statement like the user system level and to make adjustments to the employment doctrine as finalised in the commissioning phase.

The results of the study are summarised as the qualification plan and are used to direct the commissioning phase executing the doctrine study in order establish a complete employment doctrine before the system is declared ready for full operational deployment, and they are also responsible for updating the life cycle cost of the user system.

The next phase would be the commissioning phase. The purpose of this commissioning phase is to set up the supply baseline for the matériel levels and the operational baseline for the combat capability. This is the terms of which industry and ARMSCOR supply the system matériel and the

SANDF operationally employs the user system and combat grouping if applicable. During the commissioning phase the matériel is subjected to factory tests by industry in accordance with the requirements contained in the technical specifications.

After proper acceptance, the matériel are supplied to ARMSCOR. ARMSCOR then in turn supplies the product systems to the SANDF for final operational test and qualification. This is measured against the functional user Requirement Statement and the logistic User Requirement Statement as contained in the Staff Requirement.

Contracted industry would be responsible for conducting the factory tests as agreed on with properly documented evidence of the results obtained. They are responsible for providing integrated logistic support as was contracted and they are further responsible for conducting the technical tests at higher system levels up to the product system in close cooperation with ARMSCOR and the SANDF as agreed to contractually with evidence of the results as stated above, in other words all these tests are properly documented and the results of these tests are properly documented.

During commissioning ARMSCOR is responsible for accepting qualified product systems against technical specifications, it is responsible to supply the product systems to the SANDF against the requirements contained in the Staff Requirement as also highlighted in the functional user

Requirement Statement and logistic User Requirement Statement. They are responsible for reporting to all interested parties on the attainment of the milestones and expenditure as determined in the acquisition plan and the contracts.

ARMSCOR is further responsible for the configuration management on product system level which will make provisions for giving full account of the change control and the configuration of the product system that is to be supplied to the user, they are responsible for the proper and full completion of the acquisition contract for the product systems and they are responsible to supply the final master record index which contains *inter alia* the final updating of the life cycle of costs of the product systems and must also supply a proposed list of strategic matériel for stockpiling purposes.

The SANDF in turn is responsible for finalising the employment doctrine and documenting it fully, responsible for finalising the logistic doctrine and document it fully as well. Then the SANDF will also become responsible for the compiling of the logistic master record index for each integrated logistic support element required to support the user system in the operating phase and then they are also responsible for the final operational test and evaluation or test and qualification at the product system level and higher.

Furthermore the SANDF is responsible for documenting any modifications that could not be incorporated

timeously in the product systems including the planning for such incorporation. They are responsible for accepting that the acquisition contract between ARMSCOR and the industry has been completed satisfactorily. If there are only insignificant outstanding items at this stage these items are indicated as exceptions in the acceptance document and normally associated with these exceptions there will be a note as to who retains the responsibility and by what date those exceptions must be resolved.

ADV SIBEKO: Just before you go to the next slide could you please explain what is meant by the employment doctrine and the logistic doctrine as appears in slide 108?

CAPT (SAN) JORDAN: Chair, these in simple terms are documents developed by the SANDF, it may be a document or documents, or a series of documents which describes how the system will be utilised and how the system will be logistically supported. Generally it is contained in a number of documents across the spectrum in the SANDF.

ADV SIBEKO: Are you able to give an example of perhaps what an employment doctrine would contain?

CAPT (SAN) JORDAN: In simple terms an employment doctrine would typically contain where the system would be housed, where it will be kept, where it will be deployed from, under what circumstances it will be deployed, by whom it will be deployed and what the responsibilities associated with that is

and the circumstances in which it is done.

ADV SIBEKO: Now when you are referring to a system by way of example this would be, it could be a submarine?

CAPT (SAN) JORDAN: A submarine would typically, or a ship would typically be referred to as a product system.

ADV SIBEKO: Now will you explain just briefly what a logistic doctrine would contain?

CAPT (SAN) JORDAN: Similarly to an employment doctrine a logistic doctrine would contain the parameters of how the system would be supported logistically. In general this would normally not be contained in a single, single document but across a spectrum of documents describing the logistic system, how supply lines are dealt with, how the system is maintained, how the system is supported and the relevant date that goes with the system, how it is managed.

ADV SIBEKO: Thank you. You may then proceed to your next slide.

CAPT (SAN) JORDAN: Now once the commissioning phase has been conducted we're getting towards the end of the project now. By enlarge at this stage most, if not all of the project objectives will have been achieved, so it comes now to the time where we need to think about closing down the project, so a provisional project conclusion report is prepared by the project officer and represents the SANDF's operational decision. A provisional project closure report or conclusion report is

basically a summary of the results produced in the commissioning phase and contains an introduction which is a short overview of the course of the project along with the important lessons learnt and the recommendations for future projects.

I just want to stop at this point quickly in the sense that during the course of my evidence yesterday I described the process and I also indicated that this process is a very lengthy and a very complex process and if an acquisition process is going to take anything from, in the order from 10 to 15 to 20 years it stands to reason that there's not many individuals that will experience this process more than once or many individuals that will experience the process in its full even once.

There is a continuous need for armaments, there is therefore a continuous need to have established acquisition projects, so there will be a continuous need for personnel to be staffed on those projects and these personnel need to be trained, they need to be taught and they need to be able to draw on the lessons learnt from previous projects because those individuals that are appointed will probably also only get one opportunity to experience this process throughout that acquisition process's life cycle and that's why it is important that we look at the lessons that we learn in the course of a programme so that we can have it available and teach the

newcomers when they get appointed to manage projects.

This provisional, just go one slide back please, this provisional project closure report also indicates a confirmation that the product systems as contracted with ARMSCOR in accordance with the memorandum agreement has been finalised satisfactorily in all respects. It is further a confirmation that the user system as contracted with other parties in accordance with the memorandum agreement has also been finalised satisfactorily in all respects.

It contains any other relevant data and documents normally attached as annexures and it would contain a completed handover certificate in which the weapons system manager or his equivalent takes over the full extent of the project responsibility for the operation. Now it could take some time between this operational decision and the final closing down of the project because there may be some outstanding items that need to be dealt with, so this provisional project conclusion report will contain a recommendation on the timescale for handling, for handing in the final project conclusion report as the logistics system can only be qualified finally when the first major repairs starts to the user system and I've indicated in some cases it can be 16 years down the line and further.

This point in time serves as the last possible handing in of the final project conclusion report by the weapons

system manager. A full financial report of completed activities, budget funds or budgeted funds not spent *et cetera* is required with this estimation of what will still be required for future activities until submission of the final conclusion report.

5 ADV SIBEKO: Before you go to the operational phase having been the project officer in respect of the submarines which were acquired in terms of the SDPP's are you able in the context of the evidence you have just given, are you able to place how far the process has gone with regard to the 10 submarines?

CAPT (SAN) JORDAN: Chair with the submarine project we are currently in the process of that final handover, it is quite a detailed process which consumes quite a bit of time because with each system that is handed over we hand over a full detail 15 or record of the details of that system as we took it over from the contractor initially and we must provide, or we have to provide the system manager with a complete record of the configuration of the system so that he has a clear understanding of what he is taking over and what he is not 20 taking over, so the idea is not to hand this thing over as one hundred percent perfect but if it comes with some outstanding items, that there is a record of those outstanding items so that he also knows what he's not getting.

The concept is that he has, when he takes over 25 responsibility, that he has a very clear understanding of what

he is taking, what responsibility he is taking over. Any outstanding matters that might still be pertaining is recorded and is also handed over so that he knows that he is taking over that responsibility as well.

ADV SIBEKO: Now if one has regard to the time when the first submarine was delivered up to the third, what sort of timescales are we looking at in order for the project to be, to reach this stage that you are testifying about now?

CAPT (SAN) JORDAN: Chair in some, in case of some projects, depending on the nature of the project it can be done quite quickly, in other projects it takes considerably longer and the period depends on the circumstances and the level of complexities that is associated. For very small projects it could take place within a year, with the larger projects it will take place, the final project conclusion will only take place five to eight years after the products are actually delivered by the contractor.

ADV SIBEKO: And using the submarine example how long has this taken?

CAPT (SAN) JORDAN: Due to the level of integration that takes place within the fleet we are now in our fifth year after we have taken over the last submarine and I'm now about to finalise that process of the final handover to the Navy.

ADV SIBEKO: By the time you finalised the process how long would it have taken you to just close the project?

CAPT (SAN) JORDAN: It would have taken in the order of six years.

ADV SIBEKO: You can then proceed to the operational phase.

CAPT (SAN) JORDAN: Chair the purpose of this operational phase is to employ the user system or combat grouping operationally in accordance with the set requirements contained in the functional User Requirement Statement, so one will note that quite often during this process we relay back to this functional User Requirement Statement and the functional, or the logistic User Requirement Statement which is associated with the Staff Requirement. In order to be able to do so the system must be fully supportable logistically during its operational life in accordance with that logistic user Requirement Statement.

The operational phase in as far as the project is concerned includes only those activities, however, that will ensure that the user system or combat grouping is fully operational on the ground, in other words that all functions have been tested and accepted in operational conditions. In this operational phase under no circumstances may any funds be put on the Special Defence Account budget in this phase of the project for new requirements that have not already been approved in the foregoing phases and this may not be done or this, and this can only be done with the express approval of the Chief of the SANDF or at the ministerial level, new financial

requirements are placed on the operating account.

During the operational phase the user system or the combat grouping is employed by the SANDF and supported logistically by the SANDF, ARMSCOR and the industry. Although this operational phase does not relate to acquisition directly I have indicated in slides the responsibilities of the different parties during the operational phase. If you so wish then I will deal with them, if you prefer then we could leave that aside.

ADV SIBEKO: I think for purposes of completeness we have started to deal with them, let's just complete that.

CAPT (SAN) JORDAN: Okay, industry in this operational phase is responsible for maintaining the system mainly on depot level but as contracted during the industrialisation phase. They are responsible for supplying spare parts as they are contracted for all the spare parts and they are responsible for providing advice regarding liability growth. They are responsible for keeping the configuration status of documentation up to date in respect of changes initiated by the system supplier or system house as was indicated or as was contracted for. ARMSCOR in turn is responsible for providing logistics where special channels must be used due to trade boycotts.

Now this, remember we're dealing with VB1000, this deals with, is aimed at that era. ARMSCOR is responsible for maintaining a common databank as agreed on with the SANDF

and in the case of naval vessels the SA Navy operates and in-house configuration management system whilst suppliers of sub assemblies and components are relied on to operate the necessary configuration systems.

The SANDF is responsible for the quickest possible commissioning of outstanding aspects of the logistic system, responsible for maintaining the system at operational and interface levels, unless otherwise contracted with industry. The SANDF is responsible for preparing the final project conclusion report so that the project portion of the life cycle of the user system or combat grouping maybe terminated.

A final project conclusion report is submitted for approval only within the framework of the arm of the service as the project in as far as the Chief of the SANDF is concerned has already been concluded upon submission of the provisional project conclusion report. When this final, when this final project conclusion report is approved the project is closed, everything has been archived and the project ceases to exist.

ADV SIBEKO: Before you deal with that next slide can I ask you to turn your attention to slide 116 which deals with the ARMSCOR responsibilities, one of which is maintaining a common databank as agreed with the SANDF. What databank is that and what does it relate to?

CAPT (SAN) JORDAN: Chair, this databank would typically relate to the logistic support baseline of the acquired product

system, this databank would include information pertaining to aspects of the system and its suppliers, where the items may be found, who it may be bought from *et cetera*.

ADV SIBEKO: Thank you, you may continue.

CAPT (SAN) JORDAN: Chair, this is the last slide that I intend to deal with in terms of the VB1000 and this is, the slide depicts the recommendation and approval process that was applicable when the VB1000 was applicable. Now at the top of the diagram we will see and recognise the documents that have been discussed at some length during the course of this testimony so far. On the top left we see the Staff Target "ST", Staff Requirement "SR", Project Study Report "PRS", Development Plan which is indicated by "DP", Acquisition Plan that is indicated by "AP" and the "PDR" refers to a Project Deferment Report but it can equally refer to the Project Closure Report.

On the right hand side of the diagram we see a three lettered indication there, "PKK" at the bottom stands for *Projek Kontrole Komitee* or Project Control Committee. "VBR" means *Verdedigingsbevelsraad* or Defence Command Council, and "VBK" means *Verdedigingsbeplanningskomitee,* which means the Defence Planning Council. The Project Control Committee "PKK" was chaired by the Chief of Staff Logistics at the time. The Defence Command Council "VBR", was chaired by the Chief of the SANDF and the

Verdedigingsbeplanningskomitee "VBK", or Defence Planning Council was chaired by the Minister of Defence at the time. Now in the bottom left of this diagram we see a small circle, it indicates ...

ADV SIBEKO: Captain there are the acronyms or abbreviations that appear on the extreme right hand side, *die Verdedigingsbeplanningskomitee et cetera*, *et cetera*, could you just slowly give those in Afrikaans and English equivalents.

CAPT (SAN) JORDAN: Sir. Chair, I will give them again. "PKK" is *Projek Kontrole Komitee*, translated into English, Project Control Committee. The "VBR" indicates *Verdedigingsbevelsraad* and that translates as the Defence Command Council. The "VBK" at the top refers to *Verdedigingsbeplanningskomitee* or the Defence Planning Council.

ADV SIBEKO: Could you also indicate in respect of each of those entities who chairs each one of them?

CAPT (SAN) JORDAN: The Project Control Committee would have been chaired by the Chief of Staff Logistics, the Defence Command Council was chaired by the Chief of the SANDF or SADF at the time, and the Defence Planning Committee at the top was chaired by the Minister of Defence.

ADV SIBEKO: You may proceed to explain the functions of the all these various committees. It is correct that later on you would be dealing with these in more depth, is it correct?

CAPT (SAN) JORDAN: That is correct Sir.

ADV SIBEKO: Continue then.

CAPT (SAN) JORDAN: In the bottom left hand corner we see the small circle, it refers to cardinal projects, above that is a triangle that refers to non-cardinal projects above a specific delegation and the chequered blocked refers to non-cardinal projects. Now pertaining to the SDPP's all SDPP's are cardinal projects, that mean that the Staff Target would have passed through all three those councils or boards and would have been approved at the highest level and that level would have been ...

CHAIRPERSON: Advocate Sibeka I'm sorry you know, I'm afraid you know, where the witness ... I'm afraid that where the witness is reading we can hardly see what that is. We can hardly see, I'm not quite sure if at all there is anything that can be done about that.

ADV SIBEKO: Chair, perhaps we ... Perhaps Chair we may refer to the primary document where that slide has been extracted. If I may ask you to go to Jordan-1. At page 219 of that bundle, do you have that in front of you? Thank you. Can I ask you to then deal with it on the basis of what is depicted on that page Captain?

CAPT (SAN) JORDAN: Chair, if we follow the diagram on the bottom left one will see there is a circle indicating "Cardinal Projects". Now all of the SDPP's were cardinal projects, so this diagram indicates in the recommendation and approval

process of these projects being cardinal projects that they would have to pass through the Project Control Committee for recommendation, they would have to pass through the Defence Command Council for recommendation and for the Staff Target that they have to be passed on to the Defence Planning Committee for final approval.

Now when we look slightly to the right for the Staff Requirement indicated by "SR", those cardinal projects would have to be recommended by the Project Control Committee and would be approved by the Defence Command Council. Project Study Reports would similarly be recommended by the Project Control Committee and by, approved by the Defence Command Council.

The development plans for these programmes were not relevant, so they would not have dealt with them, but the acquisition plans in terms of this policy would have had to pass through the Project Control Committee as well as the Defence Command Council and submitted to the Defence Planning Council or Committee for approval, but now as I describe the later processes we will find that new processes were placed in or were put into place by the time that the acquisition plans had to be approved, so this specific diagram would not be relevant to the acquisition plans for the SDPP's, however, it would have been relevant to the earlier stages of the SDPP's. If I move on through the next series of policies we will see how

the new policies have changed this diagram to look somewhat differently and there will be different councils and committees established and consequently this diagram will have changed.

ADV SIBEKO: In terms of the charts that, or the timelines that you referred to earlier in the course of your evidence yesterday the next policy that applied was the LOG12 Pamphlet 2, is that right?

CAPT (SAN) JORDAN: That is correct Chair. Chair, I have given an overview of LOG12 Pamphlet 2 and described it briefly and because it reflects and echoes the VB1000 it is not necessary to deal with LOG12 Pamphlet 2 in any great depth, so I'm going to briefly describe the difference between a LOG12 Pamphlet 2 and the VB1000.

ADV SIBEKO: Before you do that yesterday you indicated and can I ask you to confirm again today that LOG12 Pamphlet 2 is the policy contained in Jordan-1 as from page 256?

CAPT (SAN) JORDAN: That is correct Chair.

ADV SIBEKO: Can you proceed then?

CAPT (SAN) JORDAN: This policy was approved in July 1994 and as I said before it echoes and reflects VB1000, it is referred to the National Defence Force whereas VB1000 refer to the SADF, it describes the process in the same manner, the same system hierarchy, classification of projects and categories of matériel is used, however, LOG12 Pamphlet 2 includes examples and templates of documentation which

VB1000 did not include. So LOG12 Pamphlet 2 was used in conjunction with VB1000 Edition 2 and whilst LOG12 Pamphlet 2 does not contain a diagram depicting the flow of project admissions or documentation in the recommendation and approval process, it dedicates an appendix to that approval projects reflecting what VB1000 says.

ADV SIBEKO: Just before you deal with the next policy document can we just spend a little bit of time on this LOG12 Pamphlet 2. May I ask you to refer also once again to that page 256 of Jordan-1. If you turn to page 258 provision is made at that document at paragraph number 2 of the Scope of the Policy. May I ask you to read that into the record please.

CAPT (SAN) JORDAN: Chair:

> *"This policy identifies the most important activities and responsibilities related to the acquisition of Category 1 Matériel, given that the policy is promulgated by Chief of the National Defence Force (Chief of Staff Logistics) more emphasis is placed on the purely logistical aspects as on finances, personnel, intelligence, planning and operations. Instructions from other Chief of the National Defence Force Staff Divisions pertaining to Category 1 Matériel are, however, referred to and form part of this policy. Given that the policy is umbrella in nature each party involved is to compile*

their own internal policy within the framework of this policy".

ADV SIBEKO: Could you also read that paragraph 3 relating to "Decision" into the record?

5 CAPT (SAN) JORDAN: *"The National Defence Force will procure matériel in accordance with the instructions laid down in this policy. Arms of the service and staff divisions involved in the procurement of Category 1 Matériel for the NDF are to ensure that*
10 *this policy is followed precisely at all times".*

ADV SIBEKO: Now if one has regard to the contents of the paragraphs that you have read, is it fair to infer that this policy formed the standard Acquisition Policy in the Department, the SANDF?

15 CAPT (SAN) JORDAN: That would be correct Sir.

ADV SIBEKO: Now if you have regard also to paragraph number 4 can I ask you to read that also into the record.

CAPT (SAN) JORDAN: *"This policy is applicable to the acquisition of all Category 1 Matériel that as aim*
20 *the improvement of the battle preparedness of the Defence Force by means of addition of new items or by upgrading existing systems. In principle it needs to be noted that this policy addresses only a small part of the life cycle of the matériel. This policy*
25 *covers only that part from the origin of the*

requirement as documented in a required operational capability up to and including the final closure of the project is documented in the project closing report. It thus covers all aspects from the concept phase to the production phase. In exceptional cases the planning and operational phases are referred to, but the aim of this is to ensure liaison and integration with preceding and successive phases. This policy is not applicable to leasing, stockpiling the acquisition of captured equipment or direct purchasing funded by the operating budget by means of State Tender Board procedures".

ADV SIBEKO: Now you will see further that another important provision in this policy document appears as from paragraph 6 at page 260. Could you also read that into the record.

CAPT (SAN) JORDAN: Again paragraph 6 refers to "Overall Accountability":

"The accountability for the Requirement Statement and acquisition of the cost effective user system rests with the National Defence Force. ARMSCOR is intimately involved with the procurement of the user system and is furthermore accountable to the NDF in accordance with the NDF specified requirements for the acquisition of product systems

and support services by means of contracting and programme management".

ADV SIBEKO: Thank you. If you turn the page you would see that the systems level that you have, in respect of which you have adduced evidence is also reflected there, would you confirm that?

CAPT (SAN) JORDAN: That is correct Chair.

ADV SIBEKO: And in paragraph 7 provision is made for ARMSCOR being the procurement agent of the Defence Force, could I ask you to read that into the record please?

CAPT (SAN) JORDAN: Chair, paragraph 7 the heading "Procurement Agent":

"ARMSCOR was created as primary procurement agent to satisfy National Defence Force requirements for Category 1 Matériel in accordance with formal acquisition plans. During the acquisition agreements for individual phases of a project may be reached. These agreements take place between the National Defence Force and ARMSCOR and are based on the general principles of contracting. Phases are then completed piecemeal until the final agreement is reached in the acquisition plan. Acceptance of delivered products by the NDF is often a necessity prior to new agreements being reached. To fulfill the

aforementioned function ARMSCOR on the one hand receives the full responsibility and authority the acceptance of the acquisition task and on the other also accepts accountability for the execution of that task".

ADV SIBEKO: Now would you confirm that the contents of this paragraph once again describes the role played by ARMSCOR in the acquisition process as you have described also in terms of the VB1000 policy?

CAPT (SAN) JORDAN: Chair that is correct, it describes the whole of ARMSCOR at that stage.

ADV SIBEKO: Thank you. Captain, we know in terms of the chart with the timelines that you gave evidence about during the course of yesterday that from the LOG12 Pamphlet 2 Policy and with the advent of the new democracy a review or an investigation into the acquisition in the Defence domain was conducted or called for by the Minister of Defence, is that correct?

CAPT (SAN) JORDAN: That is correct Chair.

ADV SIBEKO: Now this investigation was conducted by certain persons which then resulted in the approval of the recommendations made and what you in referred to in your evidence as the MODAC Report.

CAPT (SAN) JORDAN: That is correct Chair.

ADV SIBEKO: Are we then now going to be dealing with the

MODAC Report?

CAPT (SAN) JORDAN: Chair, in August 1994 the Minister of Defence issued an instruction that the acquisition function of the Department be investigated. A Steering Committee under the Minister's chairmanship and a Departmental Project Team was appointed. The project team became known as the MODAC Work Group, MODAC stands for Ministry of Defence Acquisition Work Group, and was instructed to investigate it and make proposals with respect to the management, execution and structure of the acquisition function of the Department. The Work Group conducted the investigation in three phases resulting in reports which were approved as departmental policies.

ADV SIBEKO: Before you go into what the processes followed related to, can I ask you to refer to page 403 of the Jordan-1 bundle. Now would you confirm that the preparation of the slides dealing with the MODAC reports have as their primary source the information contained in what appears in the document commencing at page 403?

CAPT (SAN) JORDAN: It is confirmed Chair.

ADV SIBEKO: May I ask you to identify that document for the record?

CAPT (SAN) JORDAN: Chair, this document is identified as the MODAC Investigation of Technology and Armaments and an Armament Acquisition in the Department of Defence, it is dated

the 8th of August 1996.

ADV SIBEKO: Will you turn to page 404 of that document?

CAPT (SAN) JORDAN: I have page 404.

ADV SIBEKO: In the middle of that page provision is made for the Minister of Defence, do you see that?

CAPT (SAN) JORDAN: I see that Chair

ADV SIBEKO: Are you able to confirm the signature that appears on that page just above the provision made for signature?

CAPT (SAN) JORDAN: That would be Mr Modise's signature.

ADV SIBEKO: Mr Modise was the Minister of Defence at the relevant time, the date here appearing being 8 August 1996, do you confirm that?

CAPT (SAN) JORDAN: I confirm.

ADV SIBEKO: Now may I ask you to read that entire foreword into the record please.

CAPT (SAN) JORDAN: Chair, for the record:

> *"Foreword. The White Paper on Defence as approved by Parliament on 14 May 1996 states that the SANDF shall be a balanced, modern, affordable and technologically advanced military force capable of executing its tasks effectively and efficiently. The services of an efficient defence industry are required to address the need to do maintenance, upgrading and where necessary the replacement of*

weapons and equipment of the SANDF. The acquisition and maintenance of military equipment shall also take account of particular requirements of peace support operations. The White Paper states that management expertise for the specialised procurement function shall be located within the Department of Defence. I issued an instruction in August 1994 that the acquisition function the Department of Defence be investigated. A Steering Committee under my chairmanship and a departmental project team were appointed. The project team became known as the MODAC (Ministry of Defence Acquisition) Work Group. The Work Group was instructed to investigate and make proposals with respect to the management, execution and structure of the acquisition function in the DOD. The Work Group conducted the investigation into three phases and produced the reports contained in this document. These were presented to the Steering Committee and approved as departmental policies. I thank the members of the Steering Committee and the MODAC Work Group for the high quality of the work they have done and congratulate them in the valuable product they have produced. Signed, Joe Modise, Minister of Defence.

8 August 1996".

ADV SIBEKO: Now Captain, having regard to what is set out in the foreword would it be correct to accept that the reports presented or prepared by the Steering Committee referred to therein formed departmental policies that regulated acquisition in the SANDF?

CAPT (SAN) JORDAN: That is my understanding Chair.

ADV SIBEKO: Right. Can I then ask you to turn to page 406 of that document. You would see that that entire page seems to give background to what was intended to be achieved through the exercise that the Minister set in motion at the time. I would like for you to read that introduction into the record, including what appears to be the members of the Steering Committee and the related committees appointed to assist the Minister in undertaking the investigation sought therein.

CAPT (SAN) JORDAN: Chair, I read into the record "Introduction":

> *"With the establishment of a civilian Defence Secretariat in 1994 it became clear that the management, policies and structure of the acquisition function in the DOD will have to be reviewed. The Minister of Defence instructed on 5 August 1994 that the acquisition function in the Department of Defence be investigated in view of the envisaged transformation of the*

Ministry/Department of Defence, and to improve transparency and accountability. The investigation was to be carried out with the due cognisance to the accepted proposals advanced by the Ministry of Defence Work Group regarding the balanced model of the future Ministry of Defence. The National Policy for the Defence Industry prepared by the Defence Industry Working Group April 1994. Instruction was given to investigate and make proposals with respect to the management and execution of the acquisition function in the DOD. To this end the roles, functions, structure, division and responsibilities, organisational positioning and interface between the SANDF, Defence Secretary, ARMSCOR and the armaments industry must be addressed. Other aspects such as the maintenance of the RSA's military technology development capability, armament's industry, marketing of armaments and arms trade control will have to be investigated. This investigation were carried out as a project by the following project organisation and the following project organisation was established:

(a) A Steering Committee consisting of the Minister of Defence, Deputy Minister of Defence, Chief of the National Defence Force, Defence Secretary

and Executive General Manager of ARMSCOR to approve proposals put forward by the project team.

(b) The project team consisting of the following members; Major General PO Du Preez of the SANDF, Commodore SJ Verster of the SANDF, Major General A Ishmael from the Defence Secretariat, Brigadier BS Carpenter from the Defence Secretariat, Dr AJ Buys from ARMSCOR, Mr HDW Esterhuize from ARMSCOR. The following members were only involved during part of the investigation; Brigadier MJ Louw of the SANDF, Colonel R Salojee from the Ministry of Defence, Advocate F Hlongwane from the Ministry of Defence, Mr S Shaik from the Defence Secretariat, Mr T Illingfort from the Defence Industry (SADIA), Mr WP Van Reyneveldt from ARMSCOR and Mr PC Smit from ARMSCOR. The project team consulted other functional experts and other parties in the course of the investigation. The investigation was done in three phases and the following reports were published; ...".

ADV SIBEKO: Now the reports referred to in that page are referred to later in the slides, is that correct?

CAPT (SAN) JORDAN: That is correct Chair.

ADV SIBEKO: Could I then ask you to continue with the slide presentation regard being had to what is contained in this document.

CAPT (SAN) JORDAN: Chair, there were three reports called MODAC-1, MODAC-2 and MODAC-3. MODAC-1 referred to Technology and Armament Acquisition Management in the Department of Defence. The MODAC-1 Report defined the roles of the different parties within the Department of Defence and established a new acquisition management process and approval structure. This included the establishment of the Armaments Acquisition Control Board (AACB), the Armaments Acquisition Steering Board (AASB), and the Armaments Acquisition Council (AAC), which replaced the existing mechanism namely the Project Control Board, the Defence Command Council and the Defence Planning Council. It was approved by the Steering Committee on 10 February 1995.

MODAC-2 relates to the Defence Industry Policy. This Policy deals with the acquisition, industrial development and arms trade, the policy also stated that all major foreign procurement contracts should contain countertrade agreements. It was approved by the Steering Committee on the 26th of September 1995.

MODAC-3 refers to the organisational structure of the Defence Acquisition Programme Management Organisation.

This organisational structure of the Defence Acquisition Programme Management Organisation (ARMSCOR) was investigated. A standard value analysis methodology was used to analyse alternative structures. The MODAC-3 analysis was presented to the Steering Committee on 31 May 1996 and the Minister then decided that ARMSCOR should continue to operate as a state-owned entity with statutory powers.

ADV SIBEKO: Now before we deal with the next policy I would like for us to go into some little bit of detail regarding the MODAC Acquisition Policy, but perhaps before we do that could you turn to slide 122. Slide 122 deals with these new approval structures that were contemplated or introduced by the MODAC Policy. Are you able to, using slide 118 demonstrate how the two structures were changed to reflect the Acquisition Policy as you have described it up to this point?

CAPT (SAN) JORDAN: Can I request that slide 118 be brought up? Chair, we see on the right hand side of the slide the Project Control Committee is indicated, the Defence Command Council is indicated and the Defence Planning Council is indicated. Now the Project Control Committee would have been replaced by the Armaments Acquisition Control Board, the Defence Command Council for the purposes of recommendation and approval processes in this policy would have been replaced by the Armaments Acquisition Steering Board and the Defence Planning Council at the highest level for the purposes of

recommendation and approval would have been replaced by the Armaments Acquisition Council.

ADV SIBEKO: Now can I ask you to turn to page 440 of Jordan-1. That is Appendix "C" to the MODAC Report, is it correct?

CAPT (SAN) JORDAN: That is correct Chair.

ADV SIBEKO: Now the heading of that appendix reads: "Constitution of Armaments Acquisition Council (AAC), Armament Acquisition Steering Board (AASB) and Armament Acquisition Control Board (AACB)". Now in relation to the slide that we have up there are you able to read these two documents together?

CAPT (SAN) JORDAN: Chair I'm not clear on what is required now?

ADV SIBEKO: You have testified that new approval structures were introduced by the MODAC Report, could you explain what appears at page 440?

CAPT (SAN) JORDAN: Okay Chair if I can ask slide number 184 to be brought up. Okay this, Chair, the slide that we have up on the screen reflects what is indicated in the document in front of you.

ADV SIBEKO: Chair, slide 184 appears at page 62 of the slides bundle. I may point out also that it corresponds with page 440 that we're dealing with presently.

CAPT (SAN) JORDAN: Chair, this diagram would indicate the

cardinal projects, the Staff Target would be approved by the Armament Acquisition Control Board, of course subject to an acquisition master plan being recommended at the next higher level, the Armaments Acquisition Steering Board and approved at the Armaments Acquisition Council. This diagram also indicates that for cardinal projects staff requirements would be approved at the Armaments Acquisition Control Board level, that project study reports for cardinal projects would be recommended at the Armaments Acquisition Control Board level, then recommended at the next higher authority which is the Armament Acquisition Steering Board and approved at the Armament Acquisition Council level.

Development plans as I've indicated before was not relevant to the SDPP's and the acquisition plans would then have to be approved or recommended by the Armaments Acquisition Control Board, recommended at the next higher authority at the Armaments Acquisition Steering Board and approved at the highest authority which is the Armaments Acquisition Council. Armaments Acquisition Council is chaired by the Minister of Defence, Armaments Acquisition Steering Board is chaired by the Secretary for Defence and the Armaments Acquisition Control Board would have, is chaired by the Chief of the Defence Acquisition and Procurement Division which is currently known as the Defence Matériel Division.

ADV SIBEKO: Now how does that document compare with the

one provided for by the VB1000 that we have been dealing with just a short while ago?

CAPT (SAN) JORDAN: Chair, that would indicate that the, that would indicate that the approval levels would be similar, however, at the Staff Target level where previously staff targets were acquired to be approved at the Armaments, or at the Defence Planning Council level this diagram now indicates that:

> *"Subject to an acquisition master plan ...".*

Which I've described yesterday:

> *"... being approved at the Armaments Acquisition Council level that Staff Targets could be approved at the Armaments Acquisition Control Board level".*

This was at a specific point in time now. The other difference is that the project study report under the VB1000 dispensation would have been approved at the highest level at the Defence Command Council level whereas in this diagram there is a requirement that they be approved at the Armaments Acquisition Council level, so this indicates that it's one level higher. And for the remainder of the diagram the application is somewhat similar.

ADV SIBEKO: Thank you Captain. Now for purpose of understanding the full impact of the provisions of the MODAC policies it would be important to deal with the various provisions and if regard be had to time and the request that

was made by you Chair at the commencement of the proceedings it would appear that this might be a convenient time to take the adjournment.

CHAIRPERSON: I think as I said earlier on today we are going to adjourn at 13h00 and I see it is already 13h00, so we'll adjourn until Monday morning. Thank you.

(COMMISSION ADJOURNS)