

ARMS PROCUREMENT COMMISSION OF SOUTH AFRICA

ARMSCOR WITNESS STATEMENT

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STATEMENT OF JOHAN ODENDAL

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1. INTRODUCTION

- 1.1 I am an adult male and I am presently employed by the Armaments Corporation of South Africa SOC Limited ("Armcor").
- 1.2 I was appointed as the programme manager for the Light Utility Helicopter ("LUH") Programme a few days after the completion of the source selection process and announcement of the Cabinet decision to appoint Agusta S.P.A. as the preferred bidder for the LUH Programme that formed part of the Strategic Defence Package Acquisition referred to herein as the SDPP.
- 1.3 My current appointment is as a Senior Manager Technical in the Aero Systems Division. I attach my curriculum vitae as annexure "JO1".
- 1.4 I have been asked to provide evidence within my knowledge that may be relevant to the LUH acquisition for the SDPP insofar as same may relate to Armcor and I am testifying before the Arms Procurement Commission of South Africa on behalf of Armcor as an employee of Armcor.
- 1.5 The facts contained in this statement are, unless the context indicates otherwise, within my knowledge and are to the best of my knowledge and belief true and correct.
- 1.6 In this statement I set out matters that may be relevant to the process and outcome, relating to the LUH acquisition which formed part of the SDPPs. This included the adjudication process insofar as it concerned the scoring of the technical value system, the negotiation phase from a technical point of view and the overseeing of the acquisition of the LUH. As the preferred bidder was selected prior to my

involvement in the programme some of the evidence that I propose to give is limited to knowledge which I have gained from a perusal of documentation available to me.

- 1.7 Attached supporting documentation formed part of the documentation supplied to the Commission on a memory stick during July 2012. All Armscor documents relevant to the terms of reference of the Arms Procurement Commission have been declassified. In order to enable Armscor to declassify three of these documents it was necessary to mask information possibly subject to company confidentiality agreements with suppliers such as detailed costing and technical specifications, and individual scoring sheets. I note that the documents provided to the Commission on the memory stick have not been masked.

## 2. THE SDPP

### BACKGROUND

- 2.1 This statement deals with aspects relating to the LUH programme that are within the Armscor domain of responsibility.
- 2.2 Captain Jordaan and Mr David Griesel have dealt with the committees/boards/councils that were established for the purposes of the SDPP, such as the Strategic Offers Committee ("SOFCOM") and International Offers Negotiating Team ("IONT") and those that were part of normal procurement processes, such as Armaments Acquisition Steering Board ("AASB") and Acquisition Armaments Council ("AAC").
- 2.3 I deal in my statement insofar as it is relevant with the involvement and engagement of such committees/boards/councils for purposes of the LUH acquisition.
- 2.4 Colonel Viljoen and Brigadier General Burger have given evidence in regard to the LUH acquisition and utilisation from the perspective of the Department of Defence ("DoD") and the South African Air Force ("SAAF").

### PROCESS FROM STAFF TARGET TO PREFERRED BIDDER

- 2.5 On the 16<sup>th</sup> of May 1996, the SAAF Staff Target 03/95 dated 29 January 1996, was approved for the replacement of Alouette III fleet of aircraft that had been operated

by the SAAF since 1962. The programme was designated Project Flange. Colonel Viljoen has given evidence on the Staff Target and annexed an extract from it as Annexure FKSv-3 to his statement.

2.6 The above approval mandated the initiation of a project study by the Integrated Project Team ("IPT") which was comprised of DoD, SAAF and Armscor representatives.

2.7 As in other acquisition projects, the project study included the evaluation of possible contenders for purposes of the LUH and was based on a process of establishing the operational and support requirements of the SAAF and Armscor's contractual requirements.

2.8 A request for information document ("RFI") was issued on the 17<sup>th</sup> of July 1996 to all identified possible suppliers and upon request ("the first RFI"). The purpose of the first RFI was to determine whether the suppliers had a product that would satisfy the requirements of the SAAF and whether the suppliers were interested in participating in the acquisition program. A copy of the first RFI is annexed hereto as "JO2".

2.9 The first RFI was issued to a total of sixteen companies, listed below:

No	COMPANY	COUNTRY
1	Agusta	Italy
2	Bell Helicopter Textron	USA
3	Eurocopter SA	France
4	HAL (Hindustan Aeronautics)	India
5	Kamov	Russia
6	McDonnell Douglas Helicopter Systems	USA
7	Mil	Russia
8	Sikorsky Aircraft	USA
9	WSK PZL-Swidnik	Poland

10	Comair Sales	RSA
11	National Airways Corporation	RSA
12	Bell Helicopter Textron Canada	Canada
13	Moscow Aircraft Production Organisation	Russia
14	Denel Aviation	RSA
15	Court Helicopters	RSA
16	Kazan Helicopter Plant	Russia

2.10 Due to the inclusion of the LUH as part of the SDPP the project study phase was restarted and a second RFI, dated 29<sup>th</sup> September 1997, ("the second RFI") was issued to the 9 (nine) countries included in the SDPP as explained in Mr David Griesel's presentation. The second RFI included the user requirement for the supply of the LUH and included provisions for defence industrial participation, national industrial participation and financing, to cater for all aspects related to the package. For the second RFI, the Staff Target 03/95 again served as the technical basis for the LUH user requirement. I annex a copy of the second RFI as "JO3". Only the following companies responded to the second RFI:

- 2.10.1 Agusta, Italy for A 109 SAAF;
- 2.10.2 Bell Helicopter Textron, Canada for Bell 427; and
- 2.10.3 Eurocopter, International for EC 635.

2.11 A response evaluation model and procedure for the second RFI was drawn up by members of the IPT and approved. This evaluation model (or Value System) was designed for the evaluation of the second RFI's responses and takes into account information requested in the second RFI as well as the user requirements as deduced from the Staff Target. The outcome of the evaluation model was a ranking of the options available in terms of a "Military Value Index". I annex hereto a copy of the response evaluation model as "JO4".

2.12 The evaluation results for the second RFI was published on the 14<sup>th</sup> November 1997. The report of the IPT indicates that responses of the three shortlisted companies were of an acceptable quality and each complied with the mandatory criteria. I annex hereto a copy of the evaluation results as "JO5".

- 2.13 After the AAC approved that a request for offer ("RFO") could be sent to the three shortlisted suppliers to solicit offers, on the 13<sup>th</sup> February 1998 a RFO was issued to Augusta, Bell Helicopter and Eurocopter with the closing date of 13 May 1998 as part of a competitive tender process. I annex hereto a copy of the RFO as "JO6".
- 2.14 The RFO was based on the SAAF Staff Target 03/95 with information added and adapted to be in the appropriate technical terms as required. The RFOs were issued for 61 (sixty one) helicopters, one of which would be used for development purposes.
- 2.15 A response evaluation model for the RFO dated 22 May 1998 was duly approved, prior to the opening of the proposals. The RFO evaluation model, was designed for the technical evaluation of the RFO responses and is based on the information requested in the Data Requirement List section of the RFO. Technical evaluation of the RFO responses determined the military value of each proposed system. A copy of the response evaluation model is annexed hereto as "JO7".
- 2.16 The proposals which were received from the three bidders were all found to be of acceptable quality with all the requested technical and cost information included therefore they qualified for further evaluation.
- 2.17 The evaluation team adopted a three stage approach for evaluating the proposals:
- 2.17.1 two pre-evaluation meetings were held where the relevant documents (evaluation model, proposals and evaluation procedure) were discussed and strategy agreement reached;
- 2.17.2 individual evaluations of the proposals were done by members of the evaluation team and individual score sheets prepared and handed in; and
- 2.17.3 a risk analysis was done during a combined work session and proposal risk adjustments were developed through consensus between members of the evaluation team.
- 2.18 The members of the evaluation team for the Light Utility Helicopters were:

TEAM FOR PROGRAM REQUIREMENTS AND FUNCTIONAL REQUIREMENTS	TEAM FOR SUPPORTABILITY REQUIREMENTS
Col JB West - SSO Heli, DFP, SAAF LtCol SL Dodds - SO Avion, Ding, SAAF LtCol PJ Labuschagne - SSO LT Plan, CAS Plan, SAAF LtCol FKS Viljoen - LUH USO, SAAF Maj JJ O'Connel - LUH Test Pilot, TFDC, SAAF Mr F Kotze - Senior Manager, Aircraft Div, Armscor Mr SN Chetty - LUH Engineering Support, Armscor	Col PA Haley - SSO Projects Logistics, SAAF Col A Swart - SSO AC Systems, ALC, SAAF Col JB West - SSO Heli, DFP, SAAF Lt Col SL Dodds - SO Avion, Ding, SAAF (Training Factors) Maj WJ Moller - ELO, 17 Squadron, SAAF Capt DL Teepe - LUH Logistics Officer, SAAF Mr AW Botha - LUH Logistics Support, Armscor
Mr AA Louw calculated the Life Cycle Cost and presented it to the rest of the team for verification	

2.19 The evaluation of the RFOs were completed by mid June 1998 and on the 25<sup>th</sup> June 1998, the "Final Response Evaluation Results for February 1998 for Offer" was published. A copy is annexed hereto as "JO8".

2.20 This report states and I quote:

*"Proposals for a Light Utility Helicopter System were received from AGUSTA (A109LUH) in Italy, BELL HELICOPTER TEXTRON (M427) in Canada and EUROCOPTER (EC635) in France/Germany. All three proposals are of acceptable quality and enabled successful application of the value model.*

*Through application of the value model discriminatory and cost factors, the relative normalised Military Figure of Merit (MFOM) ranking of the proposals are:*

- AGUSTA A109LUH ranked first with an evaluation MFOM of 100
- EUROCOPTER EC635 ranked second with an evaluation MFOM of 69
- BELL M427 ranked third with an evaluation MFOM of 57.

*ALL THREE PRODUCT SYSTEMS ARE OPERATIONALLY ACCEPTABLE TO THE SAAF AND THE INDICATED FIGURE OF MERIT VALUES ARE NOT A REFLECTION OF ABSOLUTE MERIT - THE SPREAD BETWEEN THE VALUES IS THE RESULT OF A*

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MATHEMATICALLY CREATED DIFFERENTIATION IN OPERATIONAL EFFECTIVENESS.

*Initial system acquisition cost (all costs, excluding programme management costs) for a product system of sixty helicopters are:*

- AGUSTAA109 - US\$423m
- BELL M427 - US\$ 462m
- EUROCOPTER - US\$ 503m

*The program risk attached to all three proposals were judged by the evaluation team to be normal and acceptable. (The BELL and EUROCOPTER proposals carry a marginally higher risk than the AGUSTA proposal.)"*

- 2.21 In terms of the Military Figure of Merit and System Acquisition Cost in respect of the technical evaluation, the Agusta proposal ranked first.
- 2.22 These results were then presented to SOFCOM during the first week of July 1998.
- 2.23 This signalled the termination of the first phase of the IPT's involvement in the process.
- 2.24 SOFCOM, which consisted of representatives from the DoD, the Department of Trade and Industry, the Department of Finance and the Department of Public Enterprises as well as Armscor, coordinated all the programs up until after the Cabinet decision was announced with respect to the identity of the preferred suppliers on 18 November 1998.
3. **CONTRACT NEGOTIATIONS**
- 3.1 From 18 November 1998 to the end of October 1999, the IPT was once again involved in the process, negotiating the supply terms agreement with Agusta as the preferred LUH supplier for the A109LUH under the auspices of the IONT.
- 3.2 As Mr Griesel has testified, while the IONT were negotiating the umbrella agreements and financing arrangements at a high level, the respective program teams were negotiating technical details with the respective suppliers in order to

finalize the configuration of each of the equipment types while remaining within a predetermined cost ceiling.

- 3.3 Due to affordability the number of helicopters was further reduced from 40 to 30 by the Cabinet.
- 3.4 Various studies were done and options investigated during the negotiations and finalisation of the detailed technical specification as captured in the contract.
- 3.5 Following a request by the IPT, Agusta conducted a training needs analysis and a cost study. From this study the IPT concluded that the acquisition and operating cost of a full mission simulator did not warrant the procurement thereof considering the relatively low through put and the eventual impact on the SAAF operating budget. The outcome of the study was presented to the Helicopter Projects Control Board ("HPCB"). As sufficient funds were not available for an full mission simulator, this option was not persued any further.
- 3.6 Consequently a more advanced cockpit procedural trainer was acquired to support pilot training.
- 3.7 The Agusta A109LUH helicopter was initially offered with the Pratt & Whitney 206 engine which was certified on the A109 Power. In the Agusta response to the RFO it was however indicated that the slightly more powerful Pratt & Whitney 207 (which was certified) or the Turbomeca Arrius 2K2 (which was not certified as it was still under development) could also be integrated into the Agusta A109LUH.
- 3.8 Agusta was requested by the IPT, subsequent to their selection as preferred supplier, to provide a comparative study and data for both engines. The report concluded that:
  - 3.8.1 The expected technical performances of the two engines are similar
  - 3.8.2 The additional cost to Armscor to acquire and integrate the Turbomeca Arrius 2K2 engines to the Agusta A109LUH would amount to an additional US\$ 3.8 million.
  - 3.8.3 No extra costs with the respect to the Pratt&Whitney 207 engines were



applicable.

- 3.8.4 The expected operating cost of the Pratt & Whitney engine would be marginally lower than of the Turbomeca engine.
- 3.8.5 The Turbomeca engine represented higher risk as it still had to be developed and certified.
- 3.8.6 Agusta recommended the P&W engine as it represented the lowest risk to the program and offered a comprehensive local repair and overall capability of Pratt & Whitney engines.
- 3.8.7 Agusta stated that they will support either selection decision provided that the additional cost with respect to the Turbomeca will be funded by the Client.
- 3.9 A "Response Evaluation Model for Engine Selection" was issued on the 3<sup>rd</sup> of February 1999 and after a few changes issue 2 dated the 2<sup>nd</sup> of May 1999 was finally approved by the Chief of the SA Air Force, the Chief Executive Officer of Armscor and the Chief of Acquisitions of the Department of Defence on the 1<sup>st</sup> of June 1999. A copy of the evaluation model is annexed hereto as "JO9".
- 3.10 After the evaluation according to the process described in the Response Evaluation Model for the Engine Selection was concluded, the "Final Response Evaluation Result for the Evaluation of the Engine Proposals" report dated 24<sup>th</sup> June 1999 was published. The report was compiled by Mr Chetty (LUH Engineer employed by Armscor), and confirmed by Col. Viljoen and myself as being as true reflection of the results of the evaluation. A copy is annexed hereto as "JO10".
- 3.11 This report indicated that the Pratt & Whitney 207 has the highest Military Figure of Merit (100 vs the 90 points of Turbomeca) and additional cost and risks with respect to the Arrius 2k2. The results were presented to the HPCB. With the Defence Industrial Participation and National Industrial Participation evaluation results added the Arrius 2K2 had however the highest overall score. After ample debate with respect to the engine selection at successive HPCB's, it was decided that the risk associated with the Arrius 2K2 engine can be sufficiently covered by contractual guarantees. The Arrius 2K2 was subsequently included in the contract baseline.

3.12 On 3 December 1999, pursuant to the negotiations, a contract was concluded for the supply of 30 helicopters together with their logistic support (LUH Supply Terms no. 1221/2), the National Industrial Participation (NIP Terms no. 1221/4) effort, the Defence Industrial Participation (DIP Terms no 1221/3) effort as well as an Umbrella Agreement (Reference no 1221/1).

3.13 The total programme value approved by Cabinet was R1 989 million (March 1998 monetary value, RoE R 6.25/USD 1).

4. OUTCOME OF ACQUISITION

4.1 The project and contract was managed in accordance with the standard principles and procedures applicable in Armscor.

4.2 As in all complex acquisition projects the associated risks had to be managed. From all the technical, financial and schedule risks foreseen in the beginning of the programme only the time scale risk materialized and this will be expanded on below.

4.3 To mitigate the risks Agusta was contracted to be the main contractor with single responsibility to develop and deliver an integrated helicopter system with its associated logistic system. Agusta were fully and solely responsible for their sub-contractors and suppliers including local South African companies.

*FINANCIAL AND SCHEDULE MATTERS*

4.4 With respect to the cost of the programme as approved by Cabinet it should be mentioned that the R1 914 million (March 1998 monetary value, RoE R 6.25/USD 1) has not been exceeded and more than R50 million (in March 1998 monetary value) has not been utilized and the programme budget has been reduced accordingly. (Note that the above amount excludes financing charges.)

4.5 Approximately 70% percent of the value of the main contract was fixed in US Dollar and most of the payments were made at an advantageous exchange rate. The balance (approximately 30%) was payable in Rand escalated to the applicable milestone date only. This resulted in a total real expenditure of R2 305 million which represent an increase due to rate of exchange and escalation of 20.4% over the full

period of the programme.

4.6 The value of the main contract remained unchanged and all deliveries have been concluded.

4.7 The first helicopter was delivered in August 2005 (25 months after the initially scheduled date) and the last in August 2009.

4.8 The main reasons for the delay were the additional time required to resolve technical development issues that the avionics, autopilot and communication sub-contractors experienced. The local production of helicopters further contributed towards the delay due to capacity shortages. Twenty three of the thirty helicopters have been produced locally.

4.9 Substantial liquidated damages of approximately R75 million (March 1998 monetary value) were applied due to the delay in delivering the equipment.

4.10 Following initial fielding of the LUH a number of changes/additional items were requested by the SAAF. The IPT is now implementing the last of these items, utilising savings from the initially approved budget. The following items are still in process and will shortly be concluded: shipping containers for LUH equipment storage at various SAAF Squadrons, pilot and co-pilot dinghies, changes to the flight planning system, new flash disks for storage of flight map information and improvements to the cockpit procedural trainer.

*TECHNICAL MATTERS*

4.11 A number of improvements with respect to the contractual specification were introduced by the contractor at no cost to Armscor, the most notable being a more technologically advanced efficient main rotor system; an advanced 4 axis digital autopilot and formal certification of the aircraft type by the European Civil Aviation Authorities (EASA).

4.12 It is worth mentioning that the contractor has never disputed any warrantee claim and has indeed allowed many warrantee claims long after the expiry of the warrantee for the particular item.

4.13 With respect to the support cost of the A109LUH, Armscor and the DoD benefitted from the economies of scale which arise from the fact that the A109LUH is part of the A109 family of helicopters of which more than 1500 are operated all over the world. The specific A109LUH aircraft configuration has indeed subsequently been sold to a number of other countries including Sweden, Malaysia, Nigeria, New Zealand and Algeria.

4.14 Local industry has (through Defence Industrial Participation) also benefitted from and continues to benefit from the acquisition of the LUHs as South African subsystems such as communication, electronic warfare protection systems and observation system has been included in sales of the LUH to other countries.

5. CONCLUSION

Following a competitive bidding process and the evaluation of the tenders in accordance with an approved value system the contract for the LUH was awarded to the bidder that offered the lowest price and best technical solution.

The last helicopter was delivered in August 2009 and the value of the main contract remains unchanged. The acquisition was concluded within budget and in accordance with the contracted technical specifications.

Should the same programme be repeated today the cost could be as much as 3 (three) times more.

Signed at

PRETORIA

on this

19<sup>TH</sup>

day of NOVEMBER 2013

  
JOHAN ODENDAL

## ANNEXURE "JO1" - CURRICULUM VITAE

JOHAN ODENDAL

## » Personal Details

Date of birth: 09 May 1959

Nationality: South African

## » Education and Qualifications

University of Pretoria in Pretoria, Gauteng

Bachelor of Engineering - Metallurgy (1981)

University of Pretoria in Pretoria, Gauteng

Bachelor of Engineering (Hons) - Physical Metallurgy (1986)

University of South Africa in Gauteng

Bachelor of Economics - Economics and Business Management (1998)

## » Work Experience

Pretoria Metal Pressings (Ammunition Manufacturer), Pretoria, Gauteng

Engineer-in-Training: (February 1981 to October 1981)

- I worked on failure analysis, metallurgical process control and optimisation

Lyttelton Engineering (Today known as Denel Land Systems), Centurion, Gauteng

Engineer (November 1981 to December 1981 and from 1984 to 1987)

- I began my career at Lyttelton Engineering as an Engineer-in-Training: My duties included Failure Analysis, Production Process Control and Optimisation.
- When I returned to the company in 1984 I took the position of Engineer: My responsibilities included Failure Analysis, Material and Manufacturing Process Specification and Improvement.
- In 1986 I was selected to participate in a Engineer: Management Training Programme and had the opportunity to manage a number of different sections with-in the company.

South African National Defence Force, Pretoria, Gauteng

National Service(January 1982 to December 1983)

- I successfully completed the officers' course during 1982.

- After the conclusion of my officer's course I was seconded to the CSIR where I held the position of researcher into the development of specialised ceramic material during 1983.

Armaments Corporation of South Africa SOC Limited, Pretoria, Gauteng

Project Manager (March 1987 to the present)

- From 1987 to 1998 I was the Armscor Project Manager responsible for the development/acquisition of the following products:
  - An Infrared Air-to Air Missile System.
  - An Advance Active Radar Air-to-Air Missile Systems
  - Various Unmanned Aircraft
  - Various Technology Establishment projects including a Thermal Imaging Missile Seeker.
- From 1999 onwards I was the Project Manager responsible for the development and procurement of a new Light Utility Helicopter for the SAAF.