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# Government Gazette Staatskoerant

Vol. 419

PRETORIA, 25 MAY  
MEI 2000

No. 21232

**We all have the power to prevent AIDS**

AIDS  
affects  
us all



A  
new  
struggle

Prevention is the cure

**AIDS  
HELPLINE**

**0800 012 322**

DEPARTMENT OF HEALTH

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**South African Telecommunications Regulatory Authority**

*General Notice*

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## GENERAL NOTICE

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**NOTICE 2074 OF 2000**

**SOUTH AFRICAN TELECOMMUNICATIONS REGULATORY AUTHORITY**



**Request for Proposal**

**PUBLIC TENDER: CONSULTANCY TO PERFORM AUDIT OF THE GSM900 NETWORKS.**

**ST-0027: TENDER CLOSING DATE: 14 JUNE, 2000 at 16H30**

**MR NICKY MAREDI  
CHAIRPERSON – TENDER COMMITTEE**

## **TENDER SPECIFICATION FOR CONSULTANCY TO PERFORM AUDIT OF THE GSM900 NETWORKS FOR THE PURPOSE OF THEIR SPECTRUM LICENCE AMENDMENT APPLICATIONS.**

### **1.0 SCOPE**

#### **1.1 BACKGROUND**

On January 18th, 2000 the South African Telecommunications Regulatory Authority ("The Authority") through the Government Gazette number 20817, Volume 415, Notice number 289 of 2000, issued a "notice of intention to amend the frequency spectrum licences of both Vodacom Group (Pty) Ltd and Mobile Telecommunications Networks (Pty) Ltd ("MTN"). This followed their respective applications to the Authority to "enable them to have access to the 1800 MHz radio frequency spectrum band."

Written representations from members of the public were invited and were submitted to the Authority on Monday, February 14th, 2000. Subsequently, the oral (public) presentations were held on March 14th, 15th, and 16th, 2000.

As part of the above-mentioned submissions, a GSM900 network audit, which needs to engage the expertise and services of an independent Consultant on specific pre-determined spectrum parameters is imperative.

#### **1.2 OBJECTIVES OF THE PROJECT**

The objectives of this project is to provide the AUTHORITY with:

- 1.2.1 Detailed networks data, information and knowledge about the GSM900 network performance and efficient spectral utilization;
- 1.2.2 The extent GSM900 Operators have implemented network capacity enhancing techniques and methods in their networks;
- 1.2.3 Recommendations that can assist the Authority in its deliberations; and
- 1.2.4 International benchmarks and advice upon which the Authority can base its decision.

### **2.0 PROJECT SPECIFICATIONS AND TERMS OF REFERENCE**

This project will be divided into three phases with deliverables due at the end of each phase and the Terms of Reference are as follows:



## 2.1 Phase 1: Project Definition, and Specifications

This document will be based and derived on the reviews of the objectives of this project, and will include, amongst others:

- 2.1.1 Execution of background studies – information gathering, discussions, et cetera.
- 2.1.2 Identification of what the Authority and the Consultant want to measure, that is, Key Performance Indexes (KPIs) and Spectrum Efficiency Parameters;
- 2.1.3 Definition of what the Authority and the Consultant want to measure, that is, Key Performance Indexes and Spectrum Efficiency Parameters;
- 2.1.4 Delivery of the audit methodology to the Operators and for them to comment thereon;
- 2.1.5 Request by the Authority to the Operators of specific network data (information) in a format specified by the Authority (on the advice of the Consultant).  
[Example, six (6) months' data reports from the day of the public hearings from either A-bis interface or Operations and Maintenance Centers (OMC)]; and
- 2.1.6 Format of the report to be submitted.

## 2.2 Phase 2: Data Collection, Transformation and Analysis

The data collection, transformation and analysis will consist of;

- 2.2.1 Requesting specific data from Operators;
- 2.2.2 Visiting Operators facilities; example, Operations and Maintenance Centres (OMC's);
- 2.2.3 The gathering of data from Operators' networks;  
that is, drive tests in pre-determined measurement areas;

**Note:** The total number of calls and the working on Saturdays and/or Sundays will be determined by the size(s) of the measurement area(s).

- 2.2.4 Transformation of the collected data (*Data K Information K Knowledge*), and
- 2.2.5 The analysis thereof and the comparison with data from Operators.

## 2.3 Phase 3: Report Compilation

The report compilation must be written and submitted in South Africa and shall visibly and mainly consist of, but not limited to:

- 2.3.1 Benchmarking Operators against International and GSM900 standards:
  - 2.3.1.1 Based on the knowledge derived from collected data;
  - 2.3.1.2 How the telecommunications consumers are likely to benefit in terms of new services, tariffs and air time price reductions, et cetera.

- 2.3.2 Alternative recommendations, based on the above-mentioned, to the Operators spectrum applications;

### **3.0 TRANSFER OF SKILLS**

SATRA staff members directly involved in the project must be part of the process to ensure that skills transfer, as well as an understanding of the whole process takes place. The following must form part of the skills transfer process:

- 3.1 Direct hands-on involvement from start to finish of the project;
- 3.2 Pre-project or during-project training in certain specific courses of the above-mentioned, like Measurement in GSM Networks, Traffic in GSM Networks, et cetera.

### **4.0 COMPLETION OF PROJECT**

The project must be completed by **AUGUST 10, 2000**. This would ensure that the recommendations and advices derived from this project will be timely submitted for discussions. Tenders are expected to provide a project plan in Microsoft Project format covering this time frame.

### **5.0 REQUIREMENTS ON TENDER**

- 5.1 The largest extend of involvement of the Historically Disadvantaged Individuals in the Republic of South Africa;
- 5.2 Audit methodology;
- 5.3 Profound experience in GSM900 network monitoring or audits projects;
- 5.4 In depth knowledge of the GSM900 Network Engineering (Planning);
- 5.5 Extensive experience in GSM900 Network Optimization;
- 5.5 Availability of at least three verifiable reference countries where network monitoring (audits) were successfully undertaken and durations of the projects;
- 5.6 Independent and neutral from local GSM900 network Operators;
- 5.7 Usage of Consultants' own GSM900 network monitoring equipment during the course of the project; and
- 5.8 The Consultant must be prepared to travel at his/her own expense.

### **6.0 DIRECT COSTS**

The tenderer must submit detailed tender costs clearly itemizing each service rendered. The cost must be in official South African Currency and must, amongst others, include:

- 6.1 Hourly work rates;



- 6.2 Hourly rate for duties performed on non-working days (Saturday, Sunday and Public Holidays);

## **7.0 COMMITMENT OF TENDER RESOURCES**

- 7.1 The Consultant shall enter into a written agreement with the Authority, and shall be fully committed to this project for its full duration;
- 7.2 No changes to the contracted scope of work shall be permitted during the course of the project unless under exceptional circumstances and only when agreed to in writing by the Tender Committee;
- 7.3 The Consultant shall provide their GSM900 network monitoring equipment/system that will be utilized for the duration of this project.
- 7.4 The Consultant shall provide the Curriculum Vitae (CV) indicating, inter alia, the following:
- 7.4.1 The name of the Consultant;
  - 7.4.2 Address in the country of origin;
  - 7.4.3 Position held in professional field of work;
  - 7.4.4 Experiences and number of years with the GSM900 networks; and
  - 7.4.5 Exact duties (functions) to be performed;

## **8.0 PAYMENT TERMS**

The Consultant must furnish detailed invoices for the work done in accordance with the fees quoted per deliverable

### **8.1 Cost/Price Mitigation**

In presenting the cost of the tender, the Consultant shall indicate, if possible, reasonable and innovative steps that will be mutually agreeable between the Consultant and the Authority so as to mitigate the costs [including what foreign aid the Consultant may be able to facilitate or initiate].

## **9.0 THE REPORT**

The Consultant shall provide five (5) copies of the report on a macro floppy disk or CD-Rom. Files to be in MS-Word (Ver 0.7) and MS-Excel format.

## **10.0 CONFIDENTIALITY**

The Consultant must agree not to disclose/communicate to anybody, unless so required by the South African Courts of Law, any information confidential in nature that it has been discussed, overheard or otherwise obtained in the course of the consultancy. This will apply during the term of this agreement and for three (3) years thereafter.

A **"Consultant Confidentiality Agreement"** must be executed by the Consultant, and is attached to this document.

## **11.0 DISCLOSURE**

The Consultant shall declare/disclose in writing to the Authority any, direct or indirect interest, and relationship, which the Consultant may have had or has with the incumbents GSM900 Operators or any of the applicants for the third mobile cellular licence.

## **12.0 INDEMNITY**

The Consultant will be required to Indemnify SATRA against any liability arising from any negligence in the performance/execution of the duties/services and the infringement of copyright.

The Authority will under no circumstances provide any Indemnity.

## **13.0 COPYRIGHT**

The Authority shall acquire full and exclusive ownership of all reports, calculations, documents and any other material supplied or produced by the Consultant in the performance of the consultancy and copyright in all documentation shall vest only with the Authority.

## **14.0 INQUIRIES AND SUBMISSIONS**

14.1 Tenderers can submit inquiries/queries on any technical aspect of the tender with the Authority and must be addressed to:

Chairperson: Mr. Nicky Maredi, Tender Committee (SATRA)  
CC Mr. Lebogang Nkacoang, Acting Audit Manager  
Private Bag X1,  
MARLBORO, 2063.  
Republic of South Africa.

E-mail : Maredi@satra.gov.za  
Phone number: +27 (11) 321 - 8232  
Cell number: (083) 326 - 2934.  
Fax number: +27 (11) 321 - 8547.

E-mail : Nkacl@satra.gov.za  
Phone number: +27 (11) 321 - 8439  
Cell number: (083) 280 - 1285.  
Fax number: +27 (11) 321 - 8550.



**OR:** Can be hand delivered between 08:30 and 16:30, Monday through Friday, to the attention of:

Chairperson: Mr. Nicky Maredi, Tender Committee (SATRA)  
CC Mr. Lebogang Nkacoang, Acting Audit Manager  
Telecommunications Licensing Department  
Pin Mill Farm, Block B  
164 Katherine Street  
Sandton.

## **15.0 TENDER CONDITIONS**

- 15.1 The Authority shall not be held liable for any expenditure incurred by Tenders in preparing their proposals.
- 15.2 Tenderers shall submit the required reports on prescribed dates.
- 15.3 Tenderers shall supply the names of at least two client references.
- 15.4 The language to be used for this project will be South African English.
- 15.5 The following forms shall be completed and submitted together with the bids:

**S1 - Confidentiality Agreement;**  
**S2 - Tender form; and**  
**S3 - Declaration of Interests.**

- 15.6 **Closing date for tenders is JUNE 14, 2000.**
- 15.7 One original and six (6) copies of the Tender documents shall be submitted
- 15.8 Notwithstanding any possible shortcomings in these specifications, Tenders shall ensure that the services provided form a total solution.
- 15.9 Additional information that may be requested from Tenders by the Chairperson of Tender Committee shall be submitted within 7 days or the Chairperson shall have the option to disregard that applicant's tender.

**16.0 TENDER EVALUATION CRITERIA**

ITEM	DESCRIPTION	MAX SUB WEIGHTS	WEIGHT
1.	<b>Approach and Methodology:</b>		15
	<ul style="list-style-type: none"> <li>Understanding the scope of the project.</li> <li>Innovative work methodology.</li> <li>Project outline and associated tasks.</li> </ul>	5 5 5	
2.	<b>Experience if GSM900:</b>		30
	<ul style="list-style-type: none"> <li>Management of GSM900 audit projects</li> <li>Specialization and experience in the GSM900.</li> <li>Supplying own GSM900 monitoring equipment.</li> </ul>	10 5 15	
3.	<b>Transfer of knowledge and skills to SATRA' staff.</b>	10	15
4.	<b>Utilization of the largest extent of the HDI's.</b>	15	15
5.	<b>Reference Countries:</b>		5
	Minimum of three (3).	5	
6.	<b>Cost Effectiveness:</b>		15
	<ul style="list-style-type: none"> <li>Cost Breakdown</li> <li>Cost Competitiveness</li> <li>Resourcefulness</li> </ul>	5 5 5	
7.	<b>Qualifications</b>	5	5
	<ul style="list-style-type: none"> <li>Bachelor of Science (B Sc)</li> <li>Master of Science (M Sc)</li> <li>Doctorate</li> </ul>	1 1.5 2.5	
	<b>TOTAL</b>		<b>100</b>

**ANNEXURE**

This list is provided only as a guideline in evaluating applicant's knowledge and skills and is not limited only to the below skills:

**16.10 Experience in GSM900 Network Engineering (Planning)**

16.1.1 GSM900 Network Life Cycle;

16.1.2 Frequency Planning;

16.1.3 Antennas;

16.1.4 Traffic Dimensioning; and

16.1.5 Site Engineering.

**16.20 Measurements in GSM900**

16.2.1 Measurement Rules;

16.2.2 Digital Measurements;

16.2.3 Measurements Preparation and Logistics;



16.2.4 Measurement Analysis; and  
16.2.5 Network Gestation.

**16.30 GSM900 Network Optimization**

16.3.1 GSM Parameters;  
16.3.2 Measurements;  
16.3.3 Capacity Enhancement Methods and Techniques;  
16.3.4 Site Audit and Integration; and  
16.3.5 Network Optimization.

**16.40 Traffic in GSM900 Networks**

16.4.1 Indicators Related to traffic and Blocking;  
16.4.2 Long Term Traffic Strategies;  
16.4.3 Managing Traffic Evolution in a network;  
16.4.4 GSM900 Theoretical Approach

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Wetlands are wonderlands!

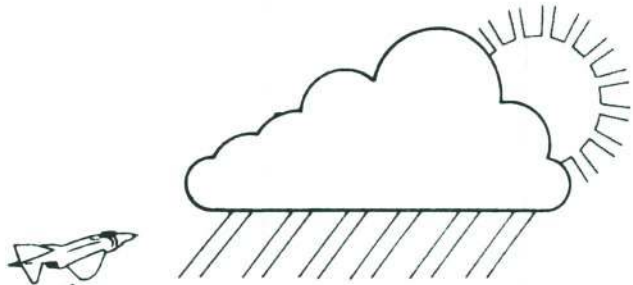
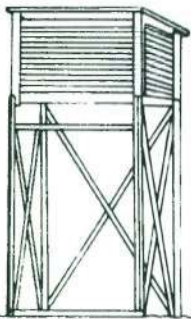
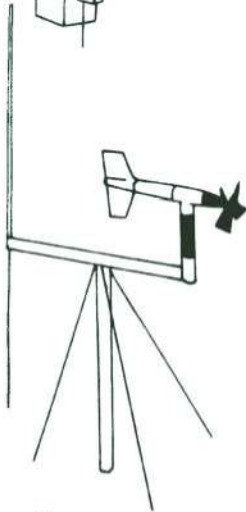


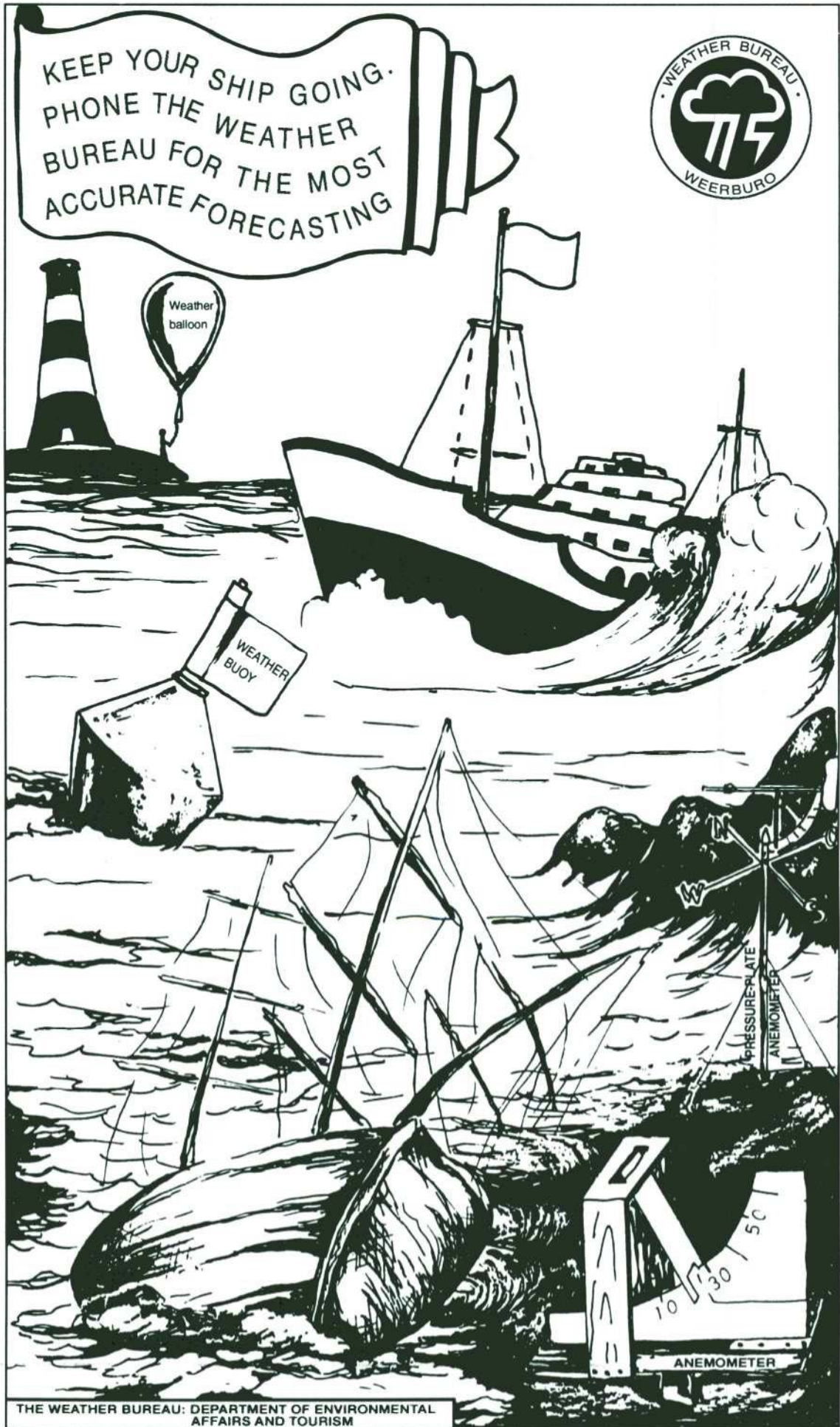
Department of Environmental Affairs and Tourism



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