



TRANSNET FREIGHT RAIL, a division of

TRANSNET SOC LTD

Registration Number 1990/000900/30

[hereinafter referred to as **Transnet**]

REQUEST FOR QUOTATION [RFQ] No HOAC-HO-22319

FOR THE SUPPLY/PROVISION OF A SERVICE TO TRANSNET FREIGHT RAIL (TFR) UTILISING MEDIUM SIZED UNMANNED AERIAL VEHICLES (UAVs') WHEREBY THE SUCCESSFUL SERVICE PROVIDER OWNS THE ENTIRE UAV INFRASTRUCTURE AND OPERATES IT NATIONALLY ON A DELEGATED DEPLOYMENT BASIS, AND INTEGRATES INTO CURRENTLY DEPLOYED (TFR) CCTV SYSTEMS.

FOR DELIVERY TO: NATIONALLY

BRIEFING DATE: 02 September 2016

**BRIEFING VENUE: Barongwa Boardroom Inyanda House 2 Ground Floor
15 Girton Road Parktown 2193**

BRIEFING TIME: 10AM -12PM

CLOSING DATE: 13 September 2016

CLOSING TIME: 10:00 AM

Returnable Document

**Section 1
NOTICE TO BIDDERS**

Quotations which must be completed as indicated in Section 2 of this RFQ are to be submitted as follows:

METHOD: [post and/or courier]
CLOSING VENUE: [Ground Floor Inyanda House 1, 21 Wellington Road, Parktown]

1 Responses to RFQ

Responses to this RFQ [**Quotations**] must not include documents or reference relating to any other quotation or proposal. Any additional conditions must be embodied in an accompanying letter.

2 Broad-Based Black Economic Empowerment [B-BBEE]

Transnet fully endorses and supports the Government's Broad-Based Black Economic Empowerment Programme and it would therefore prefer to do business with local business enterprises who share these same values. As described in more detail in the attached B-BBEE Claim Form Transnet will allow a "preference" to companies who provide a valid B-BBEE Verification Certificate.

The value of this bid is estimated to exceed R1 000 000 (all applicable taxes included); and therefore the **90/10** system shall be applicable.

Respondents are required to complete Annexure A [the B-BBEE Preference Point Claim Form] and submit it together with proof of their B-BBEE Status as stipulated in the Claim Form in order to obtain preference points for their B-BBEE Status.

Note: Failure to submit a valid and original B-BBEE certificate or a certified copy thereof at the Closing Date of this RFQ will result in a score of zero being allocated for B-BBEE.

3 Communication

Respondents are warned that a response will be liable for disqualification should any attempt be made by a Respondent either directly or indirectly to canvass any officer(s) or employee of Transnet in respect of this RFQ between the closing date and the date of the award of the business.

A Respondent may, however, before the closing date and time, direct any written enquiries relating to the RFQ to the following Transnet employee:

Name: Ayanda Msomi Email: ayanda.msomi@transnet.net
Telephone: 011 584 0803

Respondents may also, at any time after the closing date of the RFQ, communicate the following individuals on any matter relating to its RFQ response:

RFQ FOR THE PROVISION/SUPPLY OF MEDIUM SIZED UAVS AS A SERVICE TO TFR RN WHEREBY THE SUCCESSFUL SERVICE PROVIDER OWNS THE ENTIRE UAV INFRASTRUCTURE INTEGRATES TO CURRENTLY DEPLOYED CCTV SYSTEMS AND IS FULLY RESPONSIBLE FOR IT AS WELL AS OPERATES IT COUNTRYWIDE ON A DELEGATED LOCATION DEPLOYMENT BASIS.

Returnable Document

Name	Email address	Telephone	Fax
Lolo Sokhela	Lolo.sokhela@transnet.net	011 544 9494	011 774 9186
Thuli Mathebula	Thuli.mathebula@transnet.net	011 544 9497	011 774 9129

4 Legal Compliance

The successful Respondent shall be in full and complete compliance with any and all applicable national and local laws and regulations.

5 Changes to Quotations

Changes by the Respondent to its submission will not be considered after the closing date and time.

6 Pricing

All prices must be quoted in South African Rand on a fixed price basis excluding VAT.

7 Prices Subject to Confirmation

Prices quoted which are subject to confirmation will not be considered.

8 Binding Offer

Any Quotation furnished pursuant to this Request shall be deemed to be an offer. Any exceptions to this statement must be clearly and specifically indicated.

9 Disclaimers

Transnet is not committed to any course of action as a result of its issuance of this RFQ and/or its receipt of a Quotation in response to it. Please note that Transnet reserves the right to:

- modify the RFQ's goods / service(s) and request Respondents to re-bid on any changes;
- reject any Quotation which does not conform to instructions and specifications which are detailed in the RFQ;
- disqualify Quotations submitted after the stated submission deadline;
- not necessarily accept the lowest priced Quotation or an alternative bid;
- reject all Quotations, if it so decides;
- place an order in connection with this Quotation at any time after the RFQ's closing date;
- award only a portion of the proposed goods / service/s which are reflected in the scope of this RFQ;
- split the award of the order/s between more than one Supplier/Service Provider should it at Transnet's discretion be more advantageous in terms of, amongst others, cost or developmental considerations ; or
- make no award at all.

Should a contract be awarded on the strength of information furnished by the Respondent, which after conclusion of the contract, is proved to have been incorrect, Transnet reserves the right to cancel the contract.

RFQ FOR THE PROVISION/SUPPLY OF MEDIUM SIZED UAVS AS A SERVICE TO TFR RN WHEREBY THE SUCCESSFUL SERVICE PROVIDER OWNS THE ENTIRE UAV INFRASTRUCTURE INTEGRATES TO CURRENTLY DEPLOYED CCTV SYSTEMS AND IS FULLY RESPONSIBLE FOR IT AS WELL AS OPERATES IT COUNTRYWIDE ON A DELEGATED LOCATION DEPLOYMENT BASIS.

Returnable Document

Transnet reserves the right to award business to the highest scoring bidder/s unless objective criteria justify the award to another bidder.

Transnet reserves the right to conduct Post Tender Negotiations (PTN) with selected Respondents or any number of short-listed Respondents, such PTN to include, at Transnet's discretion, any evaluation criteria listed in the RFQ document.

Should the preferred bidder fail to sign or commence with the contract within a reasonable period after being requested to do so, Transnet reserves the right to award the business to the next highest ranked bidder, provided that he/she is still prepared to provide the required goods at the quoted price.

Transnet reserves the right to lower the threshold for Technical from 80% to 70% if no Bidders pass the predetermined minimum threshold.

10 Specification/Scope of Work

• Introduction

- Transnet Freight Rail has identified a need for medium sized Unmanned Aerial Vehicles (UAVs) for surveillance within relatively small geographical areas such as yards and depots to assist in the mitigation of theft and vandalism in localized areas.
- This document serves as a request for quotation for the procurement of the operation of UAVs in and around TFR infrastructure nationally as a service.
- All telecommunication equipment and components used in the proposed UAVs must be type approved by TCASA.

• Scope

- This document elaborates on the request for the procurement of the above mentioned UAV systems in the following methodology.
 - Operation of UAVs as a form of a service.
 - A maximum of 6 UAVs are required for a period of 6 months
 - The bidder must have capacity that includes pilots that can operate the UAVs and these pilots must have the necessary experience and licensing.
 - The bidder will own the entire UAV infrastructure.
 - The bidder will take responsibility for any damage that the UAV system may incur or impart on any other infrastructure.
 - The bidder will take responsibility for any penalties due to infringement on the operational capacities.
 - The bidder must have capacity for the operation of UAVs nationally as there will be a need to rapidly deploy the UAV service.
- Except where otherwise stated in this specification, all equipment, installation must conform to the latest recommendations of the ITU-T, SANS, ISO, IEEE, SABS, CENELEC and IEC Standards.

RFQ FOR THE PROVISION/SUPPLY OF MEDIUM SIZED UAVS AS A SERVICE TO TFR RN WHEREBY THE SUCCESSFUL SERVICE PROVIDER OWNS THE ENTIRE UAV INFRASTRUCTURE INTEGRATES TO CURRENTLY DEPLOYED CCTV SYSTEMS AND IS FULLY RESPONSIBLE FOR IT AS WELL AS OPERATES IT COUNTRYWIDE ON A DELEGATED LOCATION DEPLOYMENT BASIS.

Returnable Document

- All standards and requirements in this document must be adhered to and any deviations must first be discussed with the TFR Rail Network Telecommunications department. Such proposed deviations can only be deemed accepted by TFR when confirmed in writing and duly signed by the Chief Engineer Telecommunications.
- Tenderers must certify that they are familiar with these recommendations and must state all instances where their equipment offered is unable to comply.

- **Functional Specification**

- The following table lists the functional requirements of the UAVS and a response on each item is required

Item	Description	Comply Y/N	Remarks	Section/page were Proof is included
1.	Technical specifications for Items / services offered must be submitted.			
1.1	Flight duration before recharge/refuel: minimum 2 hours			
1.2	Maximum mass: ≤ 15 kg			
1.3	Operational range (from operator) at least 10 km from point of control			
1.4	Maximum wingspan: 5m			
1.5	Maximum length: ≤ 3 m			
1.6	No need for runway for take off			
1.7	Flight altitude: at least 200m			
1.8	Camera resolution: 360p to 1080p (zoom capability) variable resolution for surveillance and central location transmission			
1.9	Day and night camera			
1.10	Camera controllable range: -80 to 20 degrees			
1.11	Operation temperature: 0 to 40 degrees Celsius			

Returnable Document

1.12	Operation at beyond Visual line of sight			
1.13	GPS: Enabled			
1.14	Low noise UAV: less than 0 dB at 100 m height			
1.15	Camera controllable (zoom, tilt and pan)			
1.16	Ability to land without runway			
1.17	Automated human identification on day and night surveillance systems			

UAV OPERATIONAL REQUIREMENTS

The table below lists the additional requirements for a bidder that will be operating UAV systems as a service for TFR:

Item	Description	Comply Y/N	Remarks	Proof Attached
2.1	The bidders must have all the required licensing, registration and equipment required for UAV systems operation under the corporate category as defined by the SACAA.			
2.2	Need to register RPAS (from SACAA) Need a RPL - RPAS Pilot License (from SACAA) Need a RLA - RPAS Letter of Approval (from SACAA) – Need a ROC - Remote Operator Certificate (from SACAA) Need an ASL – Aerial Services License (from SACAA) Any other operational requirements as listed by the SACAA.			
2.3	The bidder must be able to provide the service			

Returnable Document

	countrywide while adhering to the SACAA and ICASA regulations			
2.4	The bidder must have a SACAA license to operate UAVs during both day and night time.			
2.5	The bidder must have the ability to change deployment environment (nationally) a week from date of notice.			
2.6	The successful bidder will take responsibility for whatever damage of harm that harm that their equipment may cause during operation in and around TFR infrastructure.			

UAV VIDEO STORAGE CAPACITY

The table below lists the additional requirements of the UAV system video storage facility/server:

Item	Description	Comply Y/N	Remarks	Proof Attached
3.1	Solution must employ a server that has the capacity for the storage of 6 months of 1080p quality video footage.			
3.2	All recordings must be date and time stamped.			
3.3	The server must have a streaming capacity through a UTP Fast Ethernet interface to accommodate streaming to a centralised location.			
3.4	The server must have a streaming management system for separate duo streaming that is configurable. The server must allow for the streaming of a lower minimum 480x360 pixels video with an optional minimum streaming capacity of 1920x1080 pixels.			

RFQ FOR THE PROVISION/SUPPLY OF MEDIUM SIZED UAVS AS A SERVICE TO TFR RN WHEREBY THE SUCCESSFUL SERVICE PROVIDER OWNS THE ENTIRE UAV INFRASTRUCTURE INTEGRATES TO CURRENTLY DEPLOYED CCTV SYSTEMS AND IS FULLY RESPONSIBLE FOR IT AS WELL AS OPERATES IT COUNTRYWIDE ON A DELEGATED LOCATION DEPLOYMENT BASIS.

Returnable Document

3.5	The server must comply with the ONVIF S standard to allow integration with other video storage (TFR infrastructure),			
3.6	All video footage will belong to TFR			
3.7	The controller base station must have an option of streaming video footage wirelessly to a location 60 km away without the need for a commercial radio network service provider.			
3.8	The video storage facility must have a webpage access application for use when streaming video from a remotely placed server.			
3.9	Client Access to the application must be browser based.			
3.10	The application must be compatible with Google Chrome			
3.11	No plug-ins are to be used as part of the application			
3.12	Application must use secure authentication and access must be controlled by profiles for each user			

Tender Requirements

"PREVIEW COPY ONLY"

- Tenders must be submitted with a clause-by-clause statement of compliance for all items in the specification. Reasons must be clearly stated (in remarks column) in cases where the Tenderer has a non-compliance or partly compliance to certain of the clauses. Compliance must be motivated by documentation as far as all technical requirements are concerned (section, page, etc, where document/s can be found, to be captured in the relevant column. Failure to comply or offer the necessary reasons for non-compliance will exclude a Tenderer from consideration.
- Tenderers must submit a complete pricing schedule and lead/delivery times for all services to be provided. These prices must include all licensing and monthly fees.
- A 2 month pilot of the provision of the UAV service to TFR together with the relaying of footage through a webpage application as a service requested for testing on TFR property by shortlisted bidders.
- All price lists must be accompanied by a delivery and cost schedule that talk to operational infrastructure and maintenance costing.
- **After awarding of the tender and agreement on the contract, the successful bidder will be required to deliver the required services within 1 month**

RFQ FOR THE PROVISION/SUPPLY OF MEDIUM SIZED UAVS AS A SERVICE TO TFR RN WHEREBY THE SUCCESSFUL SERVICE PROVIDER OWNS THE ENTIRE UAV INFRASTRUCTURE INTEGRATES TO CURRENTLY DEPLOYED CCTV SYSTEMS AND IS FULLY RESPONSIBLE FOR IT AS WELL AS OPERATES IT COUNTRYWIDE ON A DELEGATED LOCATION DEPLOYMENT BASIS.

Returnable Document

RFQ FOR THE PROVISION/SUPPLY OF: MEDIUM SIZED UAVS AS A SERVICE TO TFR RN WHEREBY THE SUCCESSFUL SERVICE PROVIDER OWNS THE ENTIRE UAV INFRASTRUCTURE INTEGRATES TO CURRENTLY DEPLOYED CCTV SYSTEMS AND IS FULLY RESPONSIBLE FOR IT AS WELL AS OPERATES IT COUNTRYWIDE ON A DELEGATED LOCATION DEPLOYMENT BASES

CLOSING VENUE: Ground Floor Inyanda House 1 21 Wellington Road Parktown

CLOSING DATE & TIME: 10:00AM

VALIDITY PERIOD: 90 Business Days

SECTION 2

EVALUATION CRITERIA AND RETURNABLE DOCUMENTS

1 Evaluation Criteria



- Step 1: Administrative Responsiveness:** All Returnable Documents/Schedules provided: Essential.
- o Valid and original, or a certified copy, of your entity’s B-BBEE Verification Certification
 - o Original valid Tax Clearance Certificate [Consortia / Joint Ventures must submit a separate Tax Clearance Certificate for each party]

- Step 2: Substantive Responsiveness:** All Mandatory documents complete and correct and acceptable response
1. Need to provide proof of registered RPAS’s (Remotely Piloted Aircraft Systems)
 2. Need to provide proof of RPL - RPAS Pilot License
 3. Need to provide proof of an ASL (Air Services License)
 4. Need to provide proof of RLA (Remotely Piloted Aircraft letter of approval)
 5. Need a ROC - Remote Operator Certificate (from CAA)
 6. Must provide proof of that licensing with the SACAA permits the bidder to fly UAVs during both day and night time.

RFQ FOR THE PROVISION/SUPPLY OF MEDIUM SIZED UAVS AS A SERVICE TO TFR RN WHEREBY THE SUCCESSFUL SERVICE PROVIDER OWNS THE ENTIRE UAV INFRASTRUCTURE INTEGRATES TO CURRENTLY DEPLOYED CCTV SYSTEMS AND IS FULLY RESPONSIBLE FOR IT AS WELL AS OPERATES IT COUNTRYWIDE ON A DELEGATED LOCATION DEPLOYMENT BASIS.

Returnable Document

7. All licensing and support equipment must be substantive to support 3 UAV operation teams at 3 different locations.
8. Restricted Radio License (also known as Restricted Certificate of Radiotelephony Aeronautical).
9. Aviation Medical Certificate (for class 4 or higher)
10. English Language Proficiency Certificate
11. RPL pilot training
12. RPAS requirements (registration marks, ID plate, strobe lights, transponder, etc)
13. RPAS Flight Manual
14. RPAS technical description
15. RPAS Maintenance Program and Maintenance Manual (generated by operator / manufacturer)
16. Operations Manual (generated by the operator).
17. Security Manual
18. Security Awareness training - 1 day course
19. Safety Management System
20. Quality Management System
21. ICASA Type Approval for all RF (radio frequency) equipment
22. Fire Extinguisher
23. First Aid Kit
24. Registered Company, at least 75% SA owned.
25. Liability Insurance cover (aviation insurance recommended)
26. Criminal record checks and background checks of all staff
27. Annexure A: Compliance to Technical Specifications
28. Annexure B: Delivery Schedule
29. Annexure C: Technical Capacity
30. Annexure D: Training

Step 3:

Technical Criteria	% Weightings	RFQ Reference
Stage 1 Compliance to Functional Specifications 80 % threshold		<i>Annexure A</i>
Total weighting	100%	
Stage 2 Technical 80% threshold		
• Technical capacity / resources	40%	<i>Annexure C</i>
• Delivery / schedule	40%	<i>Annexure B</i>
• Training	20%	<i>Annexure D</i>
Total Weighting:	100%	
Minimum qualifying score required:	80%	

RFQ FOR THE PROVISION/SUPPLY OF MEDIUM SIZED UAVS AS A SERVICE TO TFR RN WHEREBY THE SUCCESSFUL SERVICE PROVIDER OWNS THE ENTIRE UAV INFRASTRUCTURE INTEGRATES TO CURRENTLY DEPLOYED CCTV SYSTEMS AND IS FULLY RESPONSIBLE FOR IT AS WELL AS OPERATES IT COUNTRYWIDE ON A DELEGATED LOCATION DEPLOYMENT BASIS.

Returnable Document

A Bidder needs to achieve 80% for compliance to technical specification in Stage 1 of Step 3 in order to proceed to Stage 2 of Step 3. Failure to achieve 80% will result to disqualification. The minimum technical threshold for step 2 is 80%.

Transnet will utilise the following criteria [not necessarily in this order] in choosing a Supplier/Service Provider, if so required:

Criterion/Criteria	Explanation
Administrative responsiveness	Completeness of response and returnable documents
Substantive responsiveness	Prequalification criteria, if any, must be met and whether the Bid materially complies with the scope and/or specification given. <ul style="list-style-type: none"> All the mandatory documents must be submitted. Failure to submit mandatory document will result in an automatic disqualification.
Functionality Threshold	<ul style="list-style-type: none"> Minimum technical threshold is 80%
Final weighted evaluation based on 90/10 preference point	<ul style="list-style-type: none"> Pricing and price basis [norm] B-BBEE status of company - Preference points will be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table indicated in Annexure A: B-BBEE Claim Form.

2 Validity Period

Transnet desires a validity period of 90 Business Days from the closing date of this RFQ.

This RFQ is valid until 19 January 2017

3 Disclosure of Prices Quoted

Respondents must indicate here whether Transnet may disclose their quoted prices and conditions to other Respondents:

YES NO

4 Returnable Documents

Returnable Documents means all the documents, Sections and Annexures, as listed in the tables below.

All Returnable Sections, as indicated in the header and footer of the relevant pages, must be signed, stamped and dated by the Respondent.

a) Respondents are required to submit with their Quotations the **mandatory Returnable Documents**, as detailed below.

RFQ FOR THE PROVISION/SUPPLY OF MEDIUM SIZED UAVS AS A SERVICE TO TFR RN WHEREBY THE SUCCESSFUL SERVICE PROVIDER OWNS THE ENTIRE UAV INFRASTRUCTURE INTEGRATES TO CURRENTLY DEPLOYED CCTV SYSTEMS AND IS FULLY RESPONSIBLE FOR IT AS WELL AS OPERATES IT COUNTRYWIDE ON A DELEGATED LOCATION DEPLOYMENT BASIS.

Returnable Document

Failure to provide all these Mandatory Returnable Documents at the Closing Date and time of this RFQ will result in a Respondent's disqualification. Respondents are therefore urged to ensure that all these Documents are returned with their Quotations.

Please confirm submission of these mandatory Returnable Documents by so indicating [Yes or No] in the tables below:

Mandatory Returnable Documents	Submitted [Yes or No]
SECTION 3 : Quotation Form	
All documents in step 2: all mandatory documents (Refer to Page 9 of 17)	
Annexure A: Compliance to Technical Specifications	
Annexure B: Delivery Schedule	
Annexure C: Technical Capacity	
Annexure D: Training	

- b) In addition to the requirements of section (4) above, Respondents are further required to submit with their Quotations the following **essential Returnable Documents** as detailed below.

Failure to provide all these Returnable Documents may result in a Respondent's disqualification. Respondents are therefore urged to ensure that all these documents are returned with their Quotations.

Essential Returnable Documents	Submitted [Yes or No]
SECTION 2 : Evaluation criteria and list of returnable documents	
- SECTION 4 : RFQ Declaration and Breach of Law Form	
- Valid and original, or a certified copy, of your entity's B-BBEE Verification Certification	
- Original valid Tax Clearance Certificate [Consortia / Joint Ventures must submit a separate Tax Clearance Certificate for each party]	

CONTINUED VALIDITY OF RETURNABLE DOCUMENTS

The successful Respondent will be required to ensure the validity of all returnable documents, including but not limited to its Tax Clearance Certificate and valid B-BBEE Verification Certificate, for the duration of any contract emanating from this RFQ. Should the Respondent be awarded the contract [**the Agreement**] and fail to present Transnet with such renewals as and when they become due, Transnet shall be entitled, in addition to any other rights and remedies that it may have in terms of the eventual Agreement, to terminate such Agreement forthwith without any liability and without prejudice to any claims which Transnet may have for damages against the Respondent.

RFQ FOR THE PROVISION/SUPPLY OF MEDIUM SIZED UAVS AS A SERVICE TO TFR RN WHEREBY THE SUCCESSFUL SERVICE PROVIDER OWNS THE ENTIRE UAV INFRASTRUCTURE INTEGRATES TO CURRENTLY DEPLOYED CCTV SYSTEMS AND IS FULLY RESPONSIBLE FOR IT AS WELL AS OPERATES IT COUNTRYWIDE ON A DELEGATED LOCATION DEPLOYMENT BASIS.

Returnable Document

**SECTION 3
QUOTATION FORM**

I/We _____
hereby offer to supply the goods/services at the prices quoted in the Price Schedule below, in accordance with the conditions related thereto.

I/We agree to be bound by those terms and conditions in:

- the Standard RFQ Terms and Conditions for the Supply of Goods or Services to Transnet; and
- any other standard or special conditions mentioned and/or embodied in this Request for Quotation.

I/We accept that unless Transnet should otherwise decide and so inform me/us, this Quotation [and, if any, its covering letter and any subsequent exchange of correspondence], together with Transnet's acceptance thereof shall constitute a binding contract between Transnet and me/us.

I/We further agree that if, after I/we have been notified of the acceptance of my/our Quotation, I/we fail to deliver the said goods/service/s within the delivery lead-time quoted, Transnet may, without prejudice to any other legal remedy which it may have, cancel the order and recover from me/us any expenses incurred by Transnet in calling for Quotations and/or having to accept any less favourable offer.

Price Schedule

Indicate the cost per unit for the quantities indicated in the respective columns

The table below lists the requirements (cost schedule) for the procurement of medium sized UAVs as a service where the base station (UAV control segment, repairs) will be owned and operated by the bidder.

ITEM	DESCRIPTION	QTY	UNIT PRICE	COST FOR MOVEMENT FROM SITE TO SITE; COST PER KILOMETRE CHARGE	DURATION (MONTHS)	TOTAL
1.	Fully manned UAV base stations	6			6	

- All Prices must be quoted in South African Rand, exclusive of VAT
- To facilitate like-for-like comparison bidders must submit pricing strictly in accordance with this price schedule and not utilise a different format. Deviation from this pricing schedule could result in a bid being disqualified.

Please note that should you have offered a discounted price(s), Transnet will only consider such price discount(s) in the final evaluation stage if offered on an unconditional basis.

Respondent's Signature

Date & Company Stamp

RFQ FOR THE PROVISION/SUPPLY OF MEDIUM SIZED UAVS AS A SERVICE TO TFR RN WHEREBY THE SUCCESSFUL SERVICE PROVIDER OWNS THE ENTIRE UAV INFRASTRUCTURE INTEGRATES TO CURRENTLY DEPLOYED CCTV SYSTEMS AND IS FULLY RESPONSIBLE FOR IT AS WELL AS OPERATES IT COUNTRYWIDE ON A DELEGATED LOCATION DEPLOYMENT BASIS.

Returnable Document

By signing this Quotation Form the Respondent is deemed to acknowledge that he/she has made himself/herself thoroughly familiar, and agrees, with all the conditions governing this RFQ, including those contained in any printed form stated to form part hereof, including but not limited to the documents stated below and Transnet SOC Ltd will recognise no claim for relief based on an allegation that the Respondent overlooked any such condition or failed properly to take it into account for the purpose of calculating tendered prices or otherwise:

1. Specifications and drawings included in this RFQ - if applicable; and
2. The following documents all of which are available on Transnet’s website or upon request:
 - 2.1. General Bid Conditions;
 - 2.2. Standard RFQ Terms and Conditions for the Supply of Goods or Services to Transnet;
 - 2.3. Supplier Integrity Pact;
 - 2.4. Non-disclosure Agreement; and
 - 2.5. Vendor Application Form and all supporting documents (first time vendors only)
Alternatively, for all existing vendors, please provide vendor number(s) here:

Transnet Operating Division	Unique Vendor Number	Yes / No
Transnet Group		
TFR, etc.		

In the Yes/No column above, please confirm that all the information e.g. company address and contact details, banking details etc. are still correct as at the time of allocation of the vendor number(s). Alternatively, Respondents are required to provide the updated information with their bid submission.

SIGNED at _____ on this _____ day of _____ 20__

SIGNATURE OF WITNESSES

ADDRESS OF WITNESSES

1 _____
Name _____

2 _____
Name _____

SIGNATURE OF RESPONDENT’S AUTHORISED REPRESENTATIVE: _____

NAME: _____

DESIGNATION: _____

RFQ FOR THE PROVISION/SUPPLY OF MEDIUM SIZED UAVS AS A SERVICE TO TFR RN WHEREBY THE SUCCESSFUL SERVICE PROVIDER OWNS THE ENTIRE UAV INFRASTRUCTURE INTEGRATES TO CURRENTLY DEPLOYED CCTV SYSTEMS AND IS FULLY RESPONSIBLE FOR IT AS WELL AS OPERATES IT COUNTRYWIDE ON A DELEGATED LOCATION DEPLOYMENT BASIS.

Returnable Document

SECTION 4

RFQ DECLARATION AND BREACH OF LAW FORM

NAME OF ENTITY: _____

We _____ do hereby certify that:

1. Transnet has supplied and we have received appropriate responses to any/all questions [as applicable] which were submitted by ourselves for RFQ Clarification purposes;
2. we have received all information we deemed necessary for the completion of this Request for Quotation [RFQ];
3. we have been provided with sufficient access to the existing Transnet facilities/sites and any and all relevant information relevant to the Supply of the goods as well as Transnet information and Employees, and has had sufficient time in which to conduct and perform a thorough due diligence of Transnet's operations and business requirements and assets used by Transnet. Transnet will therefore not consider or permit any pre- or post-contract verification or any related adjustment to pricing, service levels or any other provisions/conditions based on any incorrect assumptions made by the Respondent in arriving at his Bid Price.
4. at no stage have we received additional information relating to the subject matter of this RFQ from Transnet sources other than information formally received from the designated Transnet contact(s) as nominated in the RFQ documents;
5. we are satisfied, insofar as our entity is concerned, that the processes and procedures adopted by Transnet in issuing this RFQ and the requirements requested from Bidders in responding to this RFQ have been conducted in a fair and transparent manner; and
6. furthermore, we declare that a family, business and/or social relationship **exists / does not exist** [delete as applicable] between an owner / member / director / partner / shareholder of our entity and an employee or board member of the Transnet Group including any person who may be involved in the evaluation and/or adjudication of this Bid.
7. In addition, we declare that an owner / member / director / partner / shareholder of our entity **is / is not** [delete as applicable] an employee or board member of the Transnet Group.
8. If such a relationship as indicated in paragraph 6 and/or 7 exists, the Respondent is to complete the following section:

FULL NAME OF OWNER/MEMBER/DIRECTOR/
PARTNER/SHAREHOLDER:

ADDRESS:

RFQ FOR THE PROVISION/SUPPLY OF MEDIUM SIZED UAVS AS A SERVICE TO TFR RN WHEREBY THE SUCCESSFUL SERVICE PROVIDER OWNS THE ENTIRE UAV INFRASTRUCTURE INTEGRATES TO CURRENTLY DEPLOYED CCTV SYSTEMS AND IS FULLY RESPONSIBLE FOR IT AS WELL AS OPERATES IT COUNTRYWIDE ON A DELEGATED LOCATION DEPLOYMENT BASIS.

Returnable Document

Indicate nature of relationship with Transnet:

[Failure to furnish complete and accurate information in this regard will lead to the disqualification of a response and may preclude a Respondent from doing future business with Transnet]

- 9. We declare, to the extent that we are aware or become aware of any relationship between ourselves and Transnet [other than any existing and appropriate business relationship with Transnet] which could unfairly advantage our entity in the forthcoming adjudication process, we shall notify Transnet immediately in writing of such circumstances.

BREACH OF LAW

- 10. We further hereby certify that I/we ~~have/have not been~~ [delete as applicable] found guilty during the preceding 5 [five] years of a serious breach of law, including but not limited to a breach of the Competition Act, 89 of 1998, by a court of law, tribunal or other administrative body. The type of breach that the Respondent is required to disclose excludes relatively minor offences or misdemeanours, e.g. traffic offences. This includes the imposition of an administrative fine or penalty.

Where found guilty of such a serious breach, please disclose:

NATURE OF BREACH:

DATE OF BREACH: _____

Furthermore, I/we acknowledge that Transnet SOC Ltd reserves the right to exclude any Respondent from the bidding process, should that person or entity have been found guilty of a serious breach of law, tribunal or regulatory obligation.

SIGNED at _____ on this _____ day of _____ 20__

For and on behalf of _____	AS WITNESS:
duly authorised hereto	
Name:	Name:
Position:	Position:

RFQ FOR THE PROVISION/SUPPLY OF MEDIUM SIZED UAVS AS A SERVICE TO TFR RN WHEREBY THE SUCCESSFUL SERVICE PROVIDER OWNS THE ENTIRE UAV INFRASTRUCTURE INTEGRATES TO CURRENTLY DEPLOYED CCTV SYSTEMS AND IS FULLY RESPONSIBLE FOR IT AS WELL AS OPERATES IT COUNTRYWIDE ON A DELEGATED LOCATION DEPLOYMENT BASIS.

Returnable Document

Signature:	Signature:
Date:	Registration No of Company/CC _____
Place:	Registration Name of Company/CC _____

"PREVIEW COPY ONLY"

Annexure A

MEDIUM SIZED UAV SERVICE COMPLIANCE SHEET

Compliance Sheet: Please indicate if proposed service/equipment complies with the specification below. Add remark for non-compliance along with where proof that you comply can be found.

1. FUNCTIONAL REQUIREMENTS FOR UAVS

The following table lists the functional requirements of the UAVs

Item	Description	Comply Y/N	Remarks	Proof
1.1	Technical specifications for items/ services offered must be submitted. *Failure to comply will exclude Tenderers from consideration.			
1.2	Flight duration before recharge/refuel: at least 2 hours			
1.3	Maximum mass ≤15 kg			
1.4	Operational range (from operator): at least 10 km from point of control			
1.5	Maximum wingspan: 5 m			
1.6	Maximum length: ≤ 3 m			
1.7	No need for runway for take off			
1.8	Flight altitude: at least 200 m			

1.9	Camera resolution: 360p to 1080p (zoom capability) variable resolution for surveillance and central location transmission			
1.10	Day and night camera			
1.11	Camera controllable range: -80 to 20 degrees			
1.12	Operation temperature: 0 to 40 degrees Celsius			
1.13	Operation at beyond Visual line of sight			
1.14	GPS: Enabled			
1.15	Low noise UAV: less than 0 dB at 100 m height			
1.16	Camera controllable (zoom, tilt and pan)			
1.17	Ability to land without runway			
1.18	Automated human identification on day and night surveillance systems			

"PREVIEW COPY ONLY"

2. UAV OPERATIONAL REQUIREMENTS

The table below lists the additional requirements for a bidder that will be operating UAVs as a service for TFR.

Item	Description	Comply Y/N	Remarks	Proof
2.1	The bidders must have all the required licensing, registration and equipment required for UAV systems operation under the corporate category as defined by the SACAA.			
2.2	Need to register RPAS (from SACAA) Need a RPL - RPAS Pilot License (from SACAA) Need a RLA - RPAS Letter of Approval (from SACAA) – Need a ROC - Remote Operator Certificate (from SACAA) Need an ASL – Aerial Services License (from SACAA) Any other operational requirements as listed by the SACAA.			
2.3	The bidder must be able to provide the service countrywide while adhering to the SACAA and IC/SA regulations			
2.4	The bidder must have a SACAA license to operate UAVs during both day and night time.			
2.5	The bidder must have the ability to change (countrywide) deployment environment at 1 weeks' notice.			
2.6	The successful bidder will take responsibility for whatever damage of harm that their equipment may cause during operation in and around TFR infrastructure.			

3. UAV VIDEO STORAGE CAPACITY

The table below lists the additional requirements of the UAV storage facility/server.

Item	Description	Comply Y/N	Remarks	Proof
3.1	The solution must employ a server that has the capacity for the storage of 6 months of 1080p quality video footage.			
3.2	All recordings must be date and time stamped.			
3.3	The server must have a streaming capacity through a UTP Fast Ethernet interface to accommodate streaming to a centralised location.			
3.4	The server must have a streaming management system for separate duo streaming that is configurable. The server must allow for the streaming of a lower 480x360 pixels video with an optional streaming capacity of the 1920x1080 pixels.			
3.5	The server must comply with the ONVIF S standard to allow integration with other video storage TFR infrastructure.			
3.6	All video footage will belong to TFR			
3.7	The controller base station must have an option of streaming video footage wirelessly to a location 60 km away without the need for a commercial radio network service provider.			
3.8	The video storage facility must have a webpage access application for use when streaming video from a remotely placed server.			
3.9	Client Access to the application must be browser			

	based.			
3.10	The application must be compatible with Google Chrome			
3.11	No plug-ins are to be used as part of the application			
3.12	Application must use secure authentication and access must be controlled by profiles for each user.			

1. SUMMARY OF COMPLIANCE TO SPECIFICATION

ITEM	DESCRIPTION	PERCENTAGE OF COMPLIANCE %
1	Functional requirements for UAVs systems	
3	UAV operational requirements	
4	UAV video storage capacity	
	Overall compliance to UAV functional specification	

"PREVIEW COPY ONLY"

ANNEXURE B: DELIVERY SCHEDULE

Indicate the delivery period, in weeks, for the quantities as indicated in the bill of quantities above:

ITEM	DESCRIPTION	QTY	LEAD TIME FOR DELIVERY (IN WEEKS)
1	Fully manned UAV base stations	6	

"PREVIEW COPY ONLY"

ANNEXURE C: TECHNICAL CAPACITY

Indicate the technical capacity in the form of number of fully manned UAV base stations that the bidder can have operating simultaneously and also indicate ability of providing the service countywide (in the form of Provinces countrywide):

ITEM	DESCRIPTION	SIMULTANEOUS UAV DEPLOYMENTS
1	Fully manned UAV base stations	

ITEM	DESCRIPTION	COUNTRYWIDE COVERAGE
1	Gauteng	
2	Limpopo	
3	North west	
4	Mpumalanga	
5	Kwazulu Natal	
6	Eastern Cape	
7	Northern Cape	
8	Western Cape	
9	Freestate	

"PREVIEW COPY ONLY"

ANNEXURE D: TRAINING

Indicate the training capacity in the form of a training schedule for TFR employees that will be required to use your application/webpage in order to access visual footage retrieved from the UAV Payload.

ITEM	DESCRIPTION	SIMULTANEOUS UAV DEPLOYMENTS
1	Webpage/application training	
2	Troubleshooting training	
3	System Backup process	

The bidder is required to include a full training schedule plan.

"PREVIEW COPY ONLY"

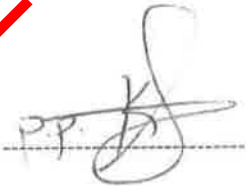
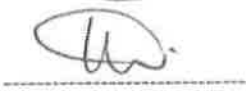
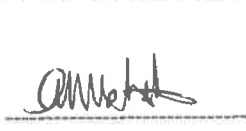


TRANSNET
freight rail

RAIL NETWORK - TELECOMMUNICATION

FUNCTIONAL SPECIFICATION

MEDIUM SIZED UAV'S SERVICE

Author:	Engineer System Integration Telecommunication	Ns Nyarai	
Approved:	Principal Engineer Network Engineering Telecommunication	M Mashologu	
Approved:	Chief Engineer Rail Network Telecommunication	AD Matseke	

Circulation Restricted To:

Transnet Freight Rail
Transnet and Relevant Third Parties
Unrestricted

Date

8 August 2016

© This document as a whole is protected by copyright. The information herein is the sole property of Transnet Ltd. It may not be used, disclosed or reproduced in part or in whole in any manner whatsoever, except with the written permission of and in a manner permitted by the proprietors.

Contents

I.	Document Authorisation	I
II.	Distribution	I
III.	Document Change History	I
IV.	Changes since Last Revision	I
V.	List of Abbreviations and Acronyms	II
VI.	Relevant Documentation Applicable.....	III
1.	INTRODUCTION.....	1
2.	SCOPE.....	1
3.	COMPLIANCE.....	1
4.	FUNCTIONAL REQUIREMENTS:.....	3
4.1.	FUNCTIONAL REQUIREMENTS FOR UAVS.....	3
4.2.	UAV OPERATIONAL REQUIREMENTS.....	4
4.3.	UAV VIDEO STORAGE CAPACITY	5
	ANNEXURE A: COMPLIANCE TO THE SPECIFICATION ABOVE:.....	6
	ANNEXURE B: BILL OF QUANTITIES AND COST SCHEDULE.....	6
	ANNEXURE C: DELIVERY SCHEDULE.....	6

"PREVIEW COPY ONLY"

I. Document Authorisation

FUNCTION	NAME	TITLE & DIVISION	SIGNATURE	DATE
Reviewed By:				

II. Distribution

Once updated, a copy of the latest revision will be published on the document management system, "Project Wise".

III. Document Change History

ISSUE NO.	DATE ISSUED	ISSUED BY	HISTORY DESCRIPTION
1.00	August 2016	NS Nyamah	New Document

IV. Changes since Last Revision

CLAUSES	DESCRIPTION

V. List of Abbreviations and Acronyms

ABBREVIATION	DESCRIPTION
1080p	1920 x 1080 pixel, high-definition video modes characterized by 1080 horizontal lines of vertical resolution and progressive scan.
360p	480 x 360 pixel
BVLOS	Beyond Visual Line Of Sight
CE	Conformete Europeenne, European conformity body
dB	Decibels
EVLOS	Extended Visual Line Of Sight
GB	Gigabytes
GHz	Gigahertz
ID	Identification
ICASA	Independent Communications Authority of South Africa
IP	Ingress Protection
kg	Kilogram
km	Kilometer
km/h	Kilometers per hour
m	Meters
RLA	RPA letter of approval
ROC	RPAS Operators Certificate
RPA	Remotely Piloted Aircraft
RPAS	Remotely Piloted Aircraft System
RPL	Remote Pilot Licence
RVLOS	Restricted Visual Line of sight
SACAA	South African Civil Aviation Authority
UAV	Unmanned Aerial Vehicle
UTP	Unshielded Twisted Pair

VI. Relevant Documentation Applicable

The equipment must comply with the latest issue of the following applicable specifications:

DOCUMENT NO.	DESCRIPTION	LOCATION
CENELEC	European Committee for Electro technical Standardization	External
ICASA	Independent Communications Authority of South Africa	External
IEC	International Electro technical Commission	External
IEEE	Institute of Electrical and Electronics Engineers	External
IP 54	Dust protected. Protected against splashing of water. Ingress Protection	External
ISO 9000	Quality Management Systems	External
BS 3939	British Department of Trade and Industry Specification:	External
SABS	South African Bureau of Standards	External
SACAA	South African Civil Aviation Authority	External
SANS	South African National Standard	External

1. INTRODUCTION

- 1.1 Transnet Freight Rail has identified a need for a medium sized UAV service, for surveillance within relatively small geographical areas (≤ 20 km square area) such as yards and depots. This will assist in the mitigation of theft and vandalism in localized areas and can further be used for inspections and other applications.
- 1.2 This document specifies the functional requirements for medium sized UAVs to be owned and operated by a service provider around TFR environment.
- 1.3 All telecommunications equipment and components used in the proposed UAV systems must be type approved by ICASA and the SACAA.

2. SCOPE

- 2.1. Except where otherwise stated in this specification, all equipment, installation must conform to the latest recommendations of the ITU-T, SANS, ISO, IEEE, SABS, CENELEC and IEC Standards.
- 2.2. All standards and requirements in this document must be adhered to and any deviations must first be discussed with the TFR Rail Network Telecommunications department. Such proposed deviations can only be deemed accepted by TFR when confirmed in writing and duly signed by the Chief Engineer Telecommunications.
- 2.3. Tenderers must certify that they are familiar with these recommendations and must state all instances where their equipment offered is unable to comply.
- 2.4. The delivery address for the equipment and/or components supplied will be specified by TFR Supply Chain Services.

3. COMPLIANCE

Item	Description	Comply Y/N	Remarks
3.1.	<p>Tenderers must comply with the clause-by-clause statement of the requirements provided below.</p> <p>Tenderers shall submit statement of compliance for equipment/ service offered on the attached compliance to specification (Annexure A).</p> <p>*Failure to comply will exclude Tenderers from consideration.</p>		

3.2.	<p>Tenderers shall complete the attached Cost Schedule (Annexure B) for equipment/ services.</p> <p>*Tenderers will be excluded from supplying any items not priced.</p>		
3.3.	<p>Tenderers shall complete the attached Delivery Schedule (Annexure C) for equipment/ services.</p> <p>*Tenderers will be excluded from supplying if delivery dates are not included, as this will be a deciding factor.</p>		

"PREVIEW COPY ONLY"

4. FUNCTIONAL REQUIREMENTS:

The following section lists the technical requirements of the following;

- a) The UAV functional requirements
- b) The UAV operational requirements
- c) The UAV video storage capacity

4.1. FUNCTIONAL REQUIREMENTS FOR UAVS

The following table lists the functional requirements of the UAVs

Item	Description	Comply Y/N	Remarks
4.1.1	Technical specifications for items/ services offered must be submitted. *Failure to comply will exclude Tenderers from consideration.		
4.1.2	Flight duration before recharge/refuel: at least 2 hours		
4.1.3	Maximum mass: ≤15 kg		
4.1.4	Operational range (from operator): at least 10 km from point of control		
4.1.5	Maximum wingspan: 5 m		
4.1.6	Maximum length: ≤ 3 m		
4.1.7	No need for runway for take off		
4.1.8	Flight altitude: at least 200 m		
4.1.9	Camera resolution: 360p to 1080p (zoom capability) variable resolution for surveillance and central location transmission		
4.1.10	Day and night camera		
4.1.11	Camera controllable range: -80 to 20 degrees		
4.1.12	Operation temperature: 0 to 40 degrees Celsius		
4.1.13	Operation at beyond Visual line of sight		
4.1.14	GPS: Enabled		
4.1.15	Low noise UAV: less than 0 dB at 100 m height		
4.1.16	Camera controllable (zoom, tilt and pan)		
4.1.17	Ability to land without runway		
4.1.18	Automated human identification on day and night surveillance systems		

4.2. UAV OPERATIONAL REQUIREMENTS

The table below lists the additional requirements for a bidder that will be operating UAVs as a service for TFR.

Item	Description	Comply Y/N	Remarks
4.4.1	The bidders must have all the required licensing, registration and equipment required for UAV systems operation under the corporate category as defined by the SACAA.		
4.4.2	<p>Need to register RPAS (from SACAA)</p> <p>Need a RPL - RPAS Pilot License (from SACAA)</p> <p>Need a RLA - RPAS Letter of Approval (from SACAA) –</p> <p>Need a ROC - Remote Operator Certificate (from SACAA)</p> <p>Need an ASL – Aerial Services License (from SACAA)</p> <p>Any other operational requirements as listed by the SACAA.</p>		
4.4.3	The bidder must be able to provide the service countrywide while adhering to the SACAA and ICAO regulations		
4.4.4	The bidder must have a SACAA license to operate UAVs during both day and night time.		
4.4.5	The bidder must have the ability to change (countrywide) deployment environment at 1 weeks' notice.		
4.4.6	The successful bidder will take responsibility for whatever damage of harm that their equipment may cause during operation in and around TFR infrastructure.		

4.3. UAV VIDEO STORAGE CAPACITY

The table below lists the additional requirements of the UAV storage facility/server.

Item	Description	Comply Y/N	Remarks
4.4.1	The solution must employ a server that has the capacity for the storage of 6 months of 1080p quality video footage.		
4.4.2	All recordings must be date and time stamped.		
4.4.3	The server must have a streaming capacity through a UTP Fast Ethernet interface to accommodate streaming to a centralised location.		
4.4.4	The server must have a streaming management system for separate dual streaming that is configurable. The server must allow for the streaming of a lower 480x360 pixels video with an optional streaming capacity of the 1920x1080 pixels.		
4.4.5	The server must comply with the ONVIF S standard to allow integration with other video storage TFR infrastructure.		
4.4.6	All video footage will belong to TFR		
4.4.7	The controller base station must have an option of streaming video footage wirelessly to a location 60 km away without the need for a commercial radio network service provider.		
4.4.8	The video storage facility must have a webpage access application for use when streaming video from a remotely placed server.		
4.4.9	Client Access to the application must be browser based.		
4.4.10	The application must be compatible with Google Chrome		
4.4.11	No plug-ins are to be used as part of the application		
4.4.12	Application must use secure authentication and access must be controlled by profiles for each user.		