

**Government of India  
Department Of Space  
Indian Space Research Organisation  
(Headquarters)**

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Purchase & Stores,  
Room No. 251, Antariksh Bhavan,  
New BEL Road,  
Bangalore – 560 094.

**Invitation to Tender(Two Part Tender)**

**No. ISRO:HQ:PUR:428:12-13**

Dear Sirs,

The Sr. Purchase & Stores Officer, Indian Space Research Organization (Headquarters), Antariksh Bhavan, New BEL Road, Bangalore-560 094, for and on behalf of the President of India (The Purchaser), invites sealed tenders for "Leasing of Satellite to be positioned in Indian Orbital Slot" as per the details (Request For Proposal/Public Tender Document) annexed to the tender form.

The conditions of contract which will govern any contract made are enclosed. If you are in a position to quote for the supply/service in accordance with the requirement, please submit your quotation in TWO PARTS, viz., Part-I: Technical & Commercial (Five Hard copies and one Soft copy in CD form only) , Part- II: Price(one Hard Copy) as per the Two part tender instructions enclosed. . Your offer should be submitted in a sealed envelope which shall contain both Part-I offer and Part-II offer in Two separate sealed covers, so as to reach the undersigned **on or before 25th January 2013 till 16:00 Hrs. IST.** It may kindly be noted quotations sent by facsimile or email will not be considered.

The Part-I Technical & Commercial Bids shall be opened on 28th January, 2013 at 11:00 Hrs.IST, in the presence of tenderers or their authorized representatives. The Price Bids will be opened after the shortlisting through a process of Technical Evaluation of the offers.

Please enclose a Demand Draft for Rs. 228/- drawn in favour of Accounts Officer, ISRO HQ, along with Part-I of your offer, in case the tender document is downloaded from ISRO website [www.isro.gov.in](http://www.isro.gov.in).

Kindly acknowledge receipt.

Yours faithfully,

(S. Venkatesh)  
Sr. Purchase & Stores Officer  
for and on behalf of the President of India  
The Purchaser

Encl: a.a.

## **TENDER FORM**

Invitation to Tender No. ISRO:HQ:PUR:428:12-13

Quotation No. \_\_\_\_\_ Dated \_\_\_\_\_

From

(Complete Postal Address of the Tenderer)

To

The Sr. Purchase & Stores Officer  
Room No. 251, Purchase & Stores  
Antariksh Bhavan,  
New BEL Road,  
Bangalore – 560 094.

Dear Sir(s),

I/We hereby offer to supply the stores/services detailed below at the price hereunder quoted and agree to hold this offer open till \_\_\_\_\_. I/We shall be bound to supply the stores/services hereby offered upon the issue of the Purchase order communicating the acceptance thereof on or before the expiry of the last mentioned date. You are at liberty to accept any one or more of the items of stores tendered for on or any portion of any one or more of the items of such stores. I/We notwithstanding that the offer in this tender has not been accepted in whole, shall be bound to supply to you such items and such portions of one or more of the items as may be specified in the said purchase order communicating acceptance.

Sl. No.	Description	Quantity	Rate
1.	Leasing of Geostationary Satellite to be positioned in Indian Orbital Slot for a period of 2 years extendable for one more year as per detailed specifications/requirements, scope of work, terms and conditions enclosed.	01	The Rate is to be mentioned in PART-II of your offer separately in a sealed envelope

1. Place at which delivery will be made : \_\_\_\_\_.
2. Date by which ordered items/services will be provided : \_\_\_\_\_.

I/We have understood the terms of the tender annexed to the invitation to tender and have thoroughly examined the specification/drawing and/or pattern quoted or referred to herein and fully aware of the nature of the stores required and my/our offer is to supply the stores/services strictly in accordance with the requirement subject to the term/s and conditions stipulated in the enquiry & contained in the purchase order communicating the acceptance of this tender in whole or in part.

Date:

Signature of Tenderer  
with Seal

Ref: Public Tender (two part) : ISRO:HQ:PUR:428:12-13

## **REQUEST-FOR-PROPOSAL (RFP)**

*for*

**SHORT TERM LEASE**

*of*

**FOREIGN GEOSTATIONARY SATELLITE(S)**

*with*

**C, EXTENDED C AND Ku BAND TRANSPONDERS**

*for*

**SATCOM APPLICATIONS**

*from*

**INDIAN ORBITAL SLOT(S)**

**Due date: 25th January 2013 16:00 Hrs. IST**

**Government of India  
Department of Space (DOS)  
Indian Space Research Organisation (ISRO)  
Antariksh Bhavan  
New BEL Road  
Bangalore 560 094.**

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## **1. INTRODUCTION**

### **1.1 OBJECTIVE OF RFP – TWO PART PUBLIC TENDER**

The objective of this RFP, which is a two part Public Tender as per ISRO/DOS purchase process/ procedure, is to invite geo-stationary satellite operators to offer proposals to ISRO for leasing their satellites to ISRO.

### **1.2 INTEREST**

ISRO is operating the INSAT and GSAT series of satellites and is interested in augmenting capacity to increase the availability of transponders. The requirement is summarized below and elaborated in Chapter 2.

- a) Requirement is for entire satellite to be leased to ISRO.
- b) Satellite transponders are required in C, extended C and Ku band (any of these three or all).
- c) Period of lease is 2 years and extendable to 3 years.
- d) Satellites which can be offered are :
  - (i) approaching end of life,
  - (ii) currently operational and
  - (iii) planned to be launched satellites
- e) The satellite will need to be moved into one of the Indian orbital location.
- f) Technical details of the spacecraft as well as payload will have to be provided. These include launch date, list of anomalies, predicted end of life, control centre, performance parameters, willingness to co-locate with INSAT/GSAT satellites, etc.,.

### **1.3 CRITERIA FOR SELECTION**

Those proposals which are found to fulfill the following conditions will be considered for award of one or more contracts for leasing the geo satellite,

- a) Technically compliant to this RFP as per Technical Requirements given in Chapter 2 and Technical Specifications given in Chapter 3.
- b) Commercial terms and conditions including lease period are compliant to this RFP and
- c) Price bid is competitive in terms of price per transponder (36 MHz equivalent) per annum (only usable frequencies will be considered).
- d) Transponder having entire India coverage will be considered as full and transponder having partial coverage of India will be considered as part of transponder on a proportionate basis.

#### **1.4 ARBITRATION CLAUSE IN THE AGREEMENT WITH SELECTED VENDOR**

An agreement will be entered into with the selected party. The vendors responding to this RFP must confirm acceptance of the following arbitration clause in the agreement between DOS and party for leasing of satellite in case they are selected.

- a) In the event of a dispute or difference arising out of or in connection with agreement which cannot be resolved by amicable settlement, the same shall be referred to an Arbitration Tribunal consisting of three (3) members, either party shall give notice to the other relating to its decision to refer the matter to arbitration. Within 30 days of such notice one arbitrator shall be nominated by each party. The third arbitrator shall be nominated by agreement between the parties to the agreement. If no such agreement is reached within 60 days of above mentioned notice, the Chairman, ISRO/Director, ISAC shall be requested to nominate the third arbitrator.
- b) The Arbitration Tribunal shall follow the provisions of Arbitration and Conciliation Act, 1996 or any re-enactment or modifications there of while conducting the arbitration proceedings. The language of the arbitration proceedings shall be in English. The award of Arbitrator shall be made by majority decision and shall be final and binding on the parties hereto. The seat of the Arbitration Tribunal proceedings shall be New Delhi or any other place in India mutually agreed to by the parties. Each party shall bear its own cost of Arbitration proceedings. The case of Arbitration including the fees payable to Arbitrators shall be shared equally by the parties to the agreement.
- c) In the event of any interpretation of any term of the agreement, the Indian law shall be applied.

#### **1.5 GENERAL INFORMATION**

- (a) The detailed technical requirements are given in **Chapter 2**.
- (b) Technical specifications are given in **Chapter 3**.

- (c) **Two part tender:** Bidders are requested to send their proposals/ quotations in two (2) parts. First part being the Technical & Commercial (other than price) quotation. Second part being the Price bid.
- (d) Instructions for preparation and submission of two part bids are given in **Chapter 4** of this document. Instructions to Tenderers are given in **Chapter 5**. Terms and conditions of the Tender are given in **Chapter 6**.
- (e) **Technical compliance statement** should be given along with applicable values for all the items listed in Technical Requirements (Chapter 2) and Technical Specifications) Chapter 3 of this RFP. In case of transponder EIRP and G/T parameters, detailed contours mapped with the expected coverage area should be provided as applicable from all the Indian orbital slots under consideration vide this RFP.
- (f) The **Price bids**, in separate sealed cover, should include the following:
- (i) **Price of leasing entire satellite per annum**
  - (ii) **Charges for movement to Indian orbital slot**
  - (iii) **Price Escalation based on period of lease or any other parameter – if applicable.**
- (g) **Time limit:** Five copies of your quotations may please be sent to the undersigned on or before 25th January 2013 at 16:00 Hrs. IST.
- (h) **Empanelment** of the vendors will be done after evaluation of technical parameters, commercial terms and pricing by adopting DOS purchase procedures.
- (i) Submission of proposals : Please submit your proposal to:
- Sr. Purchase and Stores Officer**  
**ISRO Headquarters**  
**Antariksh Bhavan,**  
**New BEL Road**  
**Bangalore-560 094,**  
**INDIA**  
**Ph: 91 80 2217 2248, 09611555688**





## **2. TECHNICAL REQUIREMENTS**

**2.1. ENTIRE SATELLITE:** ISRO proposes to lease Geo-stationary Communications Satellite(s) in its entirety for the lease period and the supplier will not be able to utilize any part of the capacity for his own use or third party use.

**2.2. FREQUENCY BANDS OF TRANSPONDERS:** ISRO is interested in leasing which has C, Extended C and Ku band transponders. Vendors can send proposals for satellites having following combinations of transponders:

- a) Only C band transponders (C x C)
- b) Only Extended C band transponders (Ext.C x Ext.C)
- c) Combination of Extended C (Ext.C x Ext.C) and C (CxC)
- d) Only Ku band transponders (Ku x Ku)
- e) Combination of C (C x C) and Ku band (Ku x Ku) transponders
- f) Combination of Extended C (Ext.C x Ext.C) and Ku band (Ku x Ku)
- g) Combination of C (C x C), Extended C (Ext.C x Ext.C) and Ku band (Ku x Ku)

The letters indicated in bracket indicate (Uplink Frequency x Downlink frequency range).

**2.3. OTHER FREQUENCY BANDS:** If the satellite contains transponders with frequency bands other than the combinations indicated in 2.2, the same should also be mentioned in the proposal. ISRO reserves the right to accept or keep these bands unutilized. In case of transponders including multiple spot-beams with feeder link in BSS/Ka/any other non-conventional frequency band, the same information should be provided, ISRO reserves the right to accept or keep these bands unutilized.

**2.4 INDIAN ORBITAL SLOTS:** At present there are six Indian orbital slots at the locations shown below:

- (a) 48°E
- (b) 55°E
- (c) 74°E
- (d) 83°E
- (e) 93.5°E
- (f) 111.5°E

Any new orbital slot other than the one mentioned above, if acquired by India in the due course of time will be informed to vendors as and when necessary.

### **2.5 ORBITAL SLOT ORIGINALLY REGISTERED**

Details of registration for the original orbital slot where the satellite was intended to launch should be provided.

## **2.6 MOVEMENT TO INDIAN ORBITAL SLOT (S)**

Readiness of the vendor to collocate the offered satellite in Indian orbital slot along with INSAT/GSAT satellites is to be clearly indicated. Multiple shifting in different India orbital slots may be required.

For this purpose all relevant physical/technical parameters of the offered satellite shall be provided. Necessary approvals/legal procedures required to be completed by the vendor through respective government agencies and timelines for moving the satellites should be mentioned explicitly.

## **2.7 TELEMETRY, TELE-COMMAND AND CONTROL (TT&C) AND CO-ORDINATION**

Necessary detailed information like TT&C frequencies, RF Specifications like EIRP, G/T, Coverage, polarization, redundancies provided should be furnished along with tentative plan, required if any, for TT&C co-ordination with ITU from Indian orbital slots.

**Establishment of TT & C station within Indian mainland is mandatory.**

## **2.8 SATELLITE GENERAL INFORMATION**

Spacecraft manufacturer details, date of launch (launched/proposed) and details of contractor selected for launch for yet to be launched satellites should be provided.

## **2.9 SATELLITE SALIENT FEATURES**

Vendor should include details like power, mass and propellant budget, size, Attitude & Orbit Control System (AOCS) details and it's various modes of operation, propulsion system, antennas, life time.

## **2.10 SPACECRAFT MAJOR SPECIFICATIONS**

Vendor should include antenna pointing error limits, eclipse operation support capability, particle radiation protection on orbit, definition of axes, station keeping capability, spacecraft reliability, details of redundancies provided, SEU/SET, single

point failure analysis and plans to operate with redundancies to be provided. Any extra built-in features like flexibility in on-board reconfiguration of payloads with respect to frequency/power/coverage, beam ON-OFF switching may be provided.

## **2.11 HEALTH STATUS AND HISTORY OF SPACECRAFT/PAYLOAD ANOMALIES**

List of the major and minor anomalies encountered in the spacecraft during manufacture, testing and/or in orbit phase should be provided along with failure analysis, alternate methodologies/approaches adapted/suggested to handle such cases and probability of recurrences.

## **2.12 SATELLITE PAYLOAD DETAILS**

Details of all types of payloads available on spacecraft including beacon transmitters should be provided along with block diagram, frequency plan, coverage footprints, RF characteristics, DC power requirements with full load conditions etc. Requested detailed specifications mentioned as per chapter-3 have to be provided as applicable at various Indian orbital locations mentioned in 2.4 above.

In case of payloads with multiple spot beams, inter-connectivity of beams if any with on-board/ground control commands, feeder link - transponder detailed characteristics should be provided along with standard applicable RF characteristics.

## **2.13 SATELLITE END OF LIFE AND REPLACEMENT STRATEGY**

End of life of the satellite offered and strategy for its replacement may/may not occur during service period of DOS/ISRO should be provided. Tentative plan for moving the satellite in the planned orbital slot after the service period with DOS/ISRO is over, may be provided.

Necessary approvals/legal procedures required to be completed by the vendor through respective government agencies and delay involved in moving the satellite should be mentioned explicitly.

## **2.14 LEASE ARRANGEMENTS AND PERIOD OF LEASE:**

The offers will have to be valid for two years from due date of the tender. Contract could be entered into on any date during the above two years validity period of the offer. The actual availability of the offered satellite in the required Indian orbital slot after completion of all formalities should not exceed six months from date of award of contract. Period of lease will be for a two years with effect from date of award of

contract which can be extendable for another one year. In other words the offered satellite needs to have life of at least about 5 ½ years from due date of the tender.

## **2.15 RESPONSIBILITIES OF THE VENDOR SELECTED FOR AWARD OF CONTRACT**

- a) The vendor shall maintain satellite in the allotted slot.
- b) In case there is any technical problem, arrangements shall be made to move satellite to a safe slot.
- c) Provide information necessary to collocate satellite with other Indian satellites
- d) Operate payload as per ISRO requirements.

## **2.16 COMPANY PROFILE**

The proposal shall include following aspects:

- a) History of the company
- b) Past experience in the field as a Satellite Communications Capacity Provider
- c) Technical and Program Management
- d) Financial strength of the company

## **3. TECHNICAL SPECIFICATIONS**

### **3.1 TECHNICAL SPECIFICATIONS FOR C-BAND TRANSPONDER FOR TV & VSAT APPLICATIONS**

Sl. No.	Performance Parameters	Specifications
1	<b>Effective Isotropic Radiated Power in 27/36 MHz under single carrier saturation, EIRP (EOC), EOL over Coverage as mentioned in Sl. No. 3.</b>	<b><math>\geq 34</math> dBW</b>
2	<b>Receive Gain to Noise temperature ratio , G/T (EOC), EOL,min. over Coverage as mentioned in Sl. No. 3</b>	<b><math>\geq -11</math> dB/°k</b>
3	<b>Required Coverage Area</b>	<b>Indian mainland Or Indian mainland and A&amp;N/ Lakshadweep Islands and part of neighbouring countries Or Part of India</b>
4	<b>Final Operational value of Saturation Flux Density to be made available including On board Attenuation (OBA) setting, for coverage as defined in Sl. No. 3 above, in Fixed Gain Mode (FGM) operation.</b>	<b><math>\leq (-85 \text{ dBW/m}^2 \pm 5 \text{ dB})</math></b>
5	<b>Usable Transponder Bandwidth</b>	<b>27 / 36 / 72 MHz (For bandwidth &gt; 36 MHz, the EIRP should be equivalent to that specified for 36 MHz)</b>
6	<b>Uplink Frequency Range</b>	<b>5850-6425 MHz</b>
7	<b>Downlink Frequency Range</b>	<b>3600-4200 MHz</b>
8	<b>Polarization Sense Tx./Rx.</b>	<b>Linear H/V or Linear V/H</b>
9	<b>Orbital Slot</b>	<b>In the orbital slots as specified in clause 2.4 of Technical requirements (within the arc of 48 °E to 112 ° E)</b>
10	<b>Transmit and Receive Cross Polarization Isolation, EOC</b>	<b><math>\geq 26.0</math> dB</b>

### 3.2 TECHNICAL SPECIFICATIONS FOR C-BAND TRANSPONDER FOR DSNG APPLICATIONS

Sl. No.	Performance Parameters	Specifications
1	<b>Effective Isotropic Radiated Power in 27/36 MHz under single carrier saturation, EIRP (EOC), EOL over Coverage as mentioned in Sl. No. 3.</b>	$\geq 37\text{dBW}$
2	<b>Receive Gain to Noise temperature ratio, G/T (EOC), EOL,min. over Coverage as mentioned in Sl. No. 3</b>	$\geq -11 \text{ dB/}^{\circ}\text{K}$
3	<b>Required Coverage Area</b>	Indian mainland Or Indian mainland and A&N/ Lakshadweep Islands and part of neighbouring countries Or Part of India
4	<b>Final Operational value of Saturation Flux Density to be made available including On board Attenuation (OBA) setting, for coverage as defined in Sl. No. 3 above, in Fixed Gain Mode (FGM) operation.</b>	$\leq (-85 \text{ dBW/m}^2 \pm 5 \text{ dB})$
5	<b>Usable Transponder Bandwidth</b>	27 / 36 / 72 MHz (For bandwidth > 36 MHz, the EIRP should be equivalent to that specified for 36 MHz)
6	<b>Uplink Frequency Range</b>	5850-6425 MHz
7	<b>Downlink Frequency Range</b>	3600-4200 MHz
8	<b>Polarization Sense Tx./Rx.</b>	Linear H/V or Linear V/H
9	<b>Orbital Slot</b>	In the orbital slots as specified in clause 2.4 of Technical requirements (within the arc of 48 °E to 112 ° E)
10	<b>Transmit and Receive Cross Polarization Isolation, EOC</b>	$\geq 26.0 \text{ dB}$

### 3.3 TECHNICAL SPECIFICATIONS FOR EXTENDED C-BAND TRANSPONDER

Sl. No.	Performance Parameters	Specifications
1	Effective Isotropic Radiated Power in 27/36 MHz under single carrier saturation, EIRP (EOC), EOL over Coverage as mentioned in Sl. No. 3.	$\geq 34$ dBW
2	Receive Gain to Noise temperature G/T (EOC), EOL, over Coverage as mentioned in Sl. No. 3	$\geq -8$ dB/ <sup>0</sup> k
3	Required Coverage Area	Indian mainland Or Indian mainland and A&N/ Lakshadweep Islands Or Part of India
4	Final Operational value of Saturation Flux Density to be made available including On board Attenuation (OBA) setting, for coverage as defined in Sl. No. 3 above, in Fixed Gain Mode (FGM) operation.	$\leq (-85 \text{ dBW/m}^2 \pm 5 \text{ dB})$
5	Usable Transponder Bandwidth	27 / 36 / 72 MHz (For bandwidth > 36 MHz, the EIRP should be equivalent to that specified for 36 MHz)
6	Uplink Frequency Range	6725-7025 MHz
7	Downlink Frequency Range	4500-4800 MHz
8	Polarization Sense Tx./Rx.	Linear H/V or Linear V/H
9	Orbital Slot	In the orbital slots as specified in clause 2.4 of Technical requirements (within the arc of 48 °E to 112 °E)
10	Transmit and Receive Cross Polarization Isolation, EOC	$\geq 26.0$ dB



### 3.4 TECHNICAL SPECIFICATIONS FOR Ku-BAND TRANSPONDER FOR DTH

Sl. No.	Performance Parameters	Specifications
1	<b>Effective Isotropic Radiated Power in 36/54 MHz under single carrier saturation, EIRP (EOC), EOL over Coverage as mentioned in Sl. No. 3.</b>	<b><math>\geq 49</math> dBW</b>
2	<b>Receive Gain to Noise temperature G/T (EOC), EOL, min. over Coverage as mentioned in Sl. No. 3</b>	<b><math>\geq +1</math> dB/<sup>0</sup>k</b>
3	<b>Required Coverage Area</b>	<b>Indian Mainland or Indian Mainland and A&amp;N/ Lakshadweep Islands or Part of India</b>
4	<b>Final Operational value of Saturation Flux Density to be made available including OBA setting, for coverage as defined in Sl. No. 3 above, in Fixed Gain Mode (FGM) operation. (In case the provision of Automatic Level Controller (ALC ) mode is available, vendor may please specify dynamic range (dB) and Min.&amp; Max. values of SFD range (dBW/m<sup>2</sup>) for ALC operation .)</b>	<b><math>\leq ( -85 \text{ dBW/m}^2 \pm 5\text{dB} )</math></b>
5	<b>Usable Transponder Bandwidth</b>	<b>36 / 54 MHz</b>
6	<b>Uplink Frequency Range</b>	<b>13.75 - 14.0 GHz* 14.0 - 14.50 GHz</b>
7	<b>Downlink Frequency Range</b>	<b>10.95 - 11.20 GHz 11.45 - 11.70 GHz 12.20 - 12.75 GHz</b>
8	<b>Polarization Sense Tx./Rx.</b>	<b>Linear H/V or Linear V/H</b>
9	<b>Orbital Slot</b>	<b>In the orbital slots as specified in clause 2.4 of Technical requirements (within the arc of 48 °E to 112 ° E)</b>
10	<b>Transmit and Receive Cross Polarization Isolation, EOC</b>	<b><math>\geq 26.0</math> dB</b>

### 3.5 TECHNICAL SPECIFICATIONS FOR Ku-BAND TRANSPONDER FOR VSAT & DSNG

Sl. No.	Performance Parameters	Specifications
1	Effective Isotropic Radiated Power (EIRP) in 27/36 MHz under single carrier saturation, EIRP (EOC), EOL over Coverage as mentioned in Sl. No. 3.	$\geq 43$ dBW
2	Receive Gain to Noise temperature G/T (EOC), EOL, min. over Coverage as mentioned in Sl. No. 3	$\geq -1$ dB/ <sup>0</sup> k
3	Required Coverage Area	Indian Mainland or Indian Mainland and A&N/ Lakshadweep Islands or Part of India
4	Final Operational Saturation Flux Density available; including On board Attenuation (OBA) setting, for coverage as defined in Sl. No. 3 above, in FGM mode.	$\leq -85$ dBW/m <sup>2</sup> $\pm 5$ dB
5	Usable Transponder Bandwidth	27/36/54/72 MHz (For > 36 MHz bandwidth, the EIRP should be equivalent to that specified for 36 MHz)
6	Uplink Frequency Range	13.75 - 14.0 GHz* 14.0 - 14.50 GHz
7	Downlink Frequency Range	10.95 - 11.20 GHz 11.45 - 11.70 GHz 12.20 - 12.75 GHz
8	Polarization Sense Tx./Rx.	Linear H/V or Linear V/H
9	Orbital Slot	In the orbital slots as specified in clause 2.4 of Technical requirements (within the arc of 48 °E to 112 ° E)
10	Transmit and Receive Cross Polarization Isolation, EOC	$\geq 26.0$ dB

**3.6 TECHNICAL SPECIFICATIONS : Additional technical data to be provided**  
**(applicable to all categories of Transponders)**

In addition to compliance statement for the specifications, vendor has to provide the following data. (Please give actual values and do not refer to any internal documents.)

(a) In band Frequency Response (Peak to Peak)

- I. Over 80% of channel bandwidth
- II. Over 90% of channel bandwidth
- III. Over 100% of channel bandwidth

(b) Total Channel Amplitude Linearity

- I. With two carriers excitation when flux density of each of the two carriers below single carrier saturation is 3dB, 6dB, 10dB, 17dB; and
- II. With multiple carriers excitation.

#### **4.0 INSTRUCTIONS FOR TWO PART TENDERS**

- 4.1 We invite your offer duly signed, consisting in two parts/envelopes marked as follows:-

**Part-I: TECHNICAL & COMMERCIAL (OTHER THAN PRICE)**

**Part-II: PRICE**

- 4.2 PART-I: TECHNICAL & COMMERCIAL BID (5 HARD COPIES) AND ONE SOFT COPY i.e. IN CD MEDIA ONLY
- 4.2.1 TECHNICAL TERMS: RFP Chapter 2 & 3 contains Technical requirement and specifications for lease of satellite to be positioned in Indian orbital slot. The detailed technical proposal of offer, along with all literature and compliance statement should be covered in this Part. Please enclose a compliance statement as per Chapter 2 for all the technical requirements and technical specifications (point by point). Also enclose a copy of the details indicated in price quotation (WITHOUT PRICES OR BY MASKING THE PRICES) mainly to know the items/specifications for which you have indicated prices in price bid. This part should not contain prices.
- 4.2.2 COMMERCIAL TERMS: This part should also cover Commercial Terms & Conditions offered by you. In addition to the Standard Conditions, the specific conditions outlined in covering letter needs to be addressed. These specific conditions indicated in covering letter shall form a part of our Order/Contract.
- 4.2.3 It may be noted that Part-I: Technical & Commercial should not contain any price details and be kept in a sealed cover duly super scribing as under:

QUOTATION AGAINST RFP NO ISRO /HQ/PUR/428/12-13

DUE ON 25th January 2013 at 16:00 Hrs IST.

PART I - TECHNICAL & COMMERCIAL

The cover should indicate SENDER's address.

- 4.3 PART II – PRICE BID ONE HARD COPY ONLY.
- 4.3.1 This part shall indicate the Price (plus applicable Taxes).
- 4.3.2 The price for the items should be indicated item in this part. All the items/specifications mentioned in the Technical Part should be reflected here

and prices indicated against each. The break-up for each item of supply or services should be indicated. Whenever options are quoted, the same should also be indicated with quantity and unit rate separately. In addition to the Standard Conditions, the specific conditions outlined in covering letter needs to be addressed. The prices are to be mentioned both in figures and in words. The price bid shall be submitted as per the proposal and shall provide Compliance Statement for all the points. This part should also be kept in a sealed cover super scribing as follows:

QUOTATION AGAINST RFP NO. – ISRO /HQ/PUR/428/12-13

DUE ON 25th January 2013 at 16:00 Hrs IST. PART II - PRICE

- 4.4 The Two sealed covers prepared as above should be kept in another envelope, sealed and super scribed as under:-

QUOTATION AGAINST RFP NO. - ISRO /HQ/PUR/428/12-13

For Leasing of Satellite

Containing 2 separate covers Part-I, Part-II and addressed to:

SR. PURCHASE & STORES OFFICER

INDIAN SPACE RESEARCH ORGANISATION

Headquarters

ANTARIKSH BHAVAN

NEW BEL ROAD, BANGALORE 560 094

INDIA

- 4.5 Your offer should reach us on or before the due date and time. Late offers received after the due date and time shall not be opened.

## **5.0 Instructions to Tenderers**

- 5.1 Bids will not be considered after the due date and time.
- 5.2 ISRO HQ, Bangalore will not be responsible for any postal delays/loss of tender documents in transit. ISRO HQ reserves the right to accept or reject any of the tender in full or part without assigning any reason there of.
- 5.3 The tender documents can be downloaded from the website mentioned above and the quotation shall be submitted along with the prescribed tender fee.
- 5.4 Tenderers/ firm's name and Tender No. shall be indicated on the reverse side of the Demand Draft.
- 5.5 Tenderers can also procure the tender documents from Sr. Purchase & Stores officer, ISRO Headquarters, Antariksh Bhavan, New BEL Road, Bangalore –94, on all working days between 10:00Hrs and 16:00 Hrs. IST, on payment of non-refundable tender fee indicated above.

- 5.6 While requesting for tender documents by post, please do not superscribe tender number and due date on the envelope. Please indicate "Request for Tender Documents".
- 5.7 The Demand Draft for the Tender fee should not be dated prior to the date of publication of Invitation to Tender.
- 5.8 Indian agents quoting on behalf of their principals, are requested to provide necessary authorization letter from their principals.
- 5.9 If tender opening date happens to be a Public Holiday, the tender(s) shall be opened on the next working day.
- 5.10 Sales Tax and/or other duties/levies where legally leviable and intended to be claimed should be distinctly shown separately in the tender. Taxes, Duties and any other statutory payments within India shall be borne by ISRO. Similarly, Taxes, duties and any other statutory payments outside India shall be borne by the Contractor.

**5.11 Your quotation should be valid for 2 years from the date of opening of the tender as mentioned in Clause 2.14 of this document .**

5.12 Prices are required to be quoted according to the units indicated.

5.13 All available technical literature, catalogues and other data in support of the specifications and details of the items should be furnished along with the Offer.

5.14 Specifications: Stores offered should strictly conform to our Specifications. Deviations, if any, should be clearly indicated by the tenderer in their quotation. The tenderer should also indicate the Make / Type number of the stores offered and provide catalogues, technical literature, and samples, wherever necessary along with the quotations. Test Certificates wherever necessary should be forwarded along with Supplies. Whenever options are called for in our Specifications, the tenderer should address all such options. Wherever specifically mentioned by us, the tenderer could suggest changes to specifications with appropriate response for the same.

5.15 The Purchaser shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portion of the quantity offered and the tenderers shall supply the same at the rates quoted.

5.16 All amounts shall be indicated both in words as well as in figures. Where there is difference between amounts quoted in words and figures, the amount quoted in words shall prevail.

**6.0 Terms and Conditions of the tender.**

6.1 Definitions:

(a)The term 'Purchaser' shall mean the President of India or his successors or assigns.

(b)The term 'Contractor' shall mean, the person, firm or company with whom or with which the Order for the supply of stores is placed and shall be deemed to include the Contractor's Successors, representatives, heirs, executors and administrators unless excluded by the contract.

(c)The term 'Stores' shall mean, what Contractor agrees to supply under the contract as specified in the Purchase Order including erection of plants and machinery and subsequent testing should such a condition be included in the Purchase Order.

(d)The term 'Purchase Order' shall mean the communication signed on behalf of the Purchaser by an officer duly authorised intimating the acceptance on behalf of the Purchaser on the terms and conditions mentioned or referred to in the said communication accepting the Tender or offer of the Contractor for supply of stores of plant, machinery or equipment or part thereof.

## 6.2. Prices :

Tenders offering firm prices will be preferred. Where a price variation clause is insisted upon by a tenderer, quotations with a reasonable ceiling should be submitted. Such offers should invariably be supported by the base price taken into account at the time of tendering and also the formula for any such variations.

## 6.3 Security Deposit

On acceptance of tender, the contractor shall, at the option of the Purchaser and within the period specified by him, deposit in cash or in any other form as the Purchaser may determine, Security deposit not exceeding ten percent (10%) of the value of the contract as the Purchaser shall specify. If the Contractor is called upon by the Purchaser to deposit Security Deposit and the Contractor fails to provide the Security Deposit within the period specified, such failure shall constitute a breach of the contract and the Purchaser shall be entitled to make other arrangements for the repurchase of the stores contracted for at the risk of the contractor in terms of Sub Clause (ii) and (iii) of clause 6.6 (b) hereof and/or to recover from the Contractor damages arising from such cancellation.

## 6.4 Guarantee & Replacement:

(a)The Contractor shall guarantee that the stores supplied shall comply fully with the specifications laid down for material workmanship and performance.

(b)For a period of twelve months after the acceptance of the stores, if any defects are discovered there in, or any defects therein found to have developed under proper use arising from faulty stores, design or workmanship, contractor shall remedy such defects at his own cost provided he is called upon to do so within a period of 12 months from the date of acceptance thereof, the Purchaser who shall state in writing in what respect the stores or any part thereof are faulty.

(c) If, in the opinion of the Purchaser, it becomes necessary to replace or renew any defective stores, such replacement or renewal shall be made by the Contractor free of all costs to the Purchaser provided the notice informing the contractor of the defect is given by the Purchaser in this regard within the said period of 12 months from the date of acceptance thereof.

(d) Should the Contractor fail to rectify the defects, the Purchaser shall have the right to reject or repair or replace at the cost of the Contractor the whole or any portion of the defective Stores.

(e) The decision of the Purchaser notwithstanding any prior approval or acceptance or inspection thereof on behalf of the Purchaser, as to whether or not the stores supplied by the Contractor are defective or any defects has developed within the said period of 12 months, or as to whether the nature of the defects requires renewal or replacement shall be final conclusive and binding on the Contractor.

(f) To fulfill guarantee conditions outlined in clause 6.4(a) to (e) above, the contractor shall, at the option of the Purchaser, furnish a Bank Guarantee (as prescribed by the Purchaser), from a Bank approved by the Purchaser for an amount equivalent to 10% of the value of the contract along with first shipment documents. On the performance and completion of the contract in all respects, the Bank Guarantee will be returned to the contractor without any interest.

(g) All the replacement stores shall also be guaranteed for a period of 12 months from the date of arrival of Stores at our site.

(h) Even while the 12 months guarantee applies to all stores in case where a greater period is called for by our specifications then such a specification shall apply in such cases the period of 12 months referred to in para 6.4 (b) & (c) shall be 'asked for' guarantee period plus two months.

#### 6.5 Acceptance of Stores:

(a) The stores shall be tendered by the contractor for inspection at such places as may be specified by the Purchaser at the Contractor's own risk, expenses and cost.

(b) It is expressly agreed that the acceptance of the Stores contracted for is subject to final approval by the Purchaser, whose decision shall be final.

(c) If, in the opinion of the Purchaser, all or any of the stores that do not meet the performance or quality requirements specified in the Purchase Order, they may be either rejected or accepted at a price to be fixed by the purchaser and his decision as to rejection and the prices to be fixed shall be final and binding on the Contractor.

(d) If the whole or any part of the stores supplied are rejected in accordance with Clause No. 6.5(c) above, the Purchaser shall be at liberty, with or without notice to the Contractor, to Purchase in the open market at the expense of the contractor, stores meeting the necessary performance and quality contracted for in place of those rejected, provided that either the purchase or the agreement to



purchase from another supplier is made within six months from the date of rejection of the stores as aforesaid.

#### 6.6 Delivery

(a)The time for and the date of delivery of the stores stipulated in the Purchase Order shall be deemed to be the essence of the contract, and delivery must be completed on or before the specified dates.

(b)Should the Contractor fail to deliver the stores or any consignment thereof within the period prescribed for such delivery, the Purchaser shall be entitled at his option either;

(i)to recover from the Contractor as agreed liquidated damages and not by way of penalty, a sum of 0.5% per week or part of a week subject to a maximum of 10% of price of any stores which the Contractor has failed to deliver as aforesaid, or

(ii)to purchase elsewhere, without notice to the Contractor on the account and at the risk of the Contractor, the stores not delivered or others of a similar description (where others exactly complying with the particulars are not, in the opinion of the purchaser readily procurable, such opinion being final) without canceling the contract in respect of the consignment(s) not yet due for delivery, or

(iii)to cancel the Contract or a portion thereof and, if so desired, to purchase or authorise the purchase of stores not so delivered or others of similar description (where others exactly complying with the particulars are not, in the opinion of the Purchaser readily procurable, such opinion final) at the risk and cost of the Contractor.

(iv)In the event of action being taken under subclause (ii) and (iii) of Clause 6.6 above, the Contractor shall be liable for any loss which the Purchaser may sustain on that account, provided that the repurchase, or, if there is an agreement to repurchase, then such agreement is made within six months from the date of such failure. But the Contractor shall not be entitled to any gain on such repurchase made against default. The manner and method of such repurchase shall be at the discretion of the Purchaser, whose decision shall be final. It shall not be necessary for the Purchaser to serve a notice of such repurchase on the defaulting Contractor. This right shall be without prejudice to the right of the Purchaser to recover damages for breach of contract by the Contractor.

#### 6.7 Extension of Time

As soon as it is apparent that contract dates cannot be adhered to an application shall be sent by the Contractor to the Purchaser. If failure on the part of the Contractor to deliver the stores in proper time shall have arisen from any cause which the Purchaser may admit as reasonable ground for any extension of the time (and his decision shall be final) he may allow such additional time as he considers it to be justified by circumstances of the case without prejudice to the Purchaser's rights to recover liquidated damages under Clause 6.6 hereof.

#### 6.8 Payment:

Contractor's bill will be passed for payment only after the stores have been received, inspected and accepted by the Purchaser.

#### 6.9 Mode of Payment:

Normally Payment will be made for the accepted stores within 30 days from the date of receipt of the materials.

#### 6.10 Recovery of Sums Due:

Whenever any claim for the payment of, whether liquidated or not, moneys arising out of or under this contract against the contractor, the Purchaser shall be entitled to recover such sum by appropriating in part or whole, security deposited by the Contractor, if security is taken against the contract. In the event of the security being insufficient or if no security has been taken from the contractor, then the balance or the total sum recoverable, as, the case may be, shall be deducted from any sum then due or which at any time thereafter may become due to the Contractor under this or any other contract with the Purchaser. Should this sum be not sufficient to cover the full amount recoverable, the Contractor shall pay to the Purchaser on demand, the remaining balance due. Similarly, If the Purchaser has or makes any claim whether liquidated or not against the Contractor, under any other contract with the Purchaser, the payment of all moneys payable under the contract to the contractor including the security deposit shall be with held till such claims of the Purchaser are finally adjudicated upon and paid by the Contractor.

#### 6.11. Indemnity

The Contractor shall warrant and be deemed to have warranted that all stores supplied against this contract are free and clean of infringement of any Patent, copyright or trademark and shall at all times indemnify the Purchaser against all claims which may be made in respect of the stores for infringement of any right protected by Patent, Registration of design or Trade Mark and shall take all risk of accidents of damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for the sufficiency of all the means used by him for the fulfillment of the contract.

#### 6.12. Arbitration:

In the event of any dispute or difference relating to the interpretation and application of the contract, such dispute or difference shall be settled amicably by mutual consultations or through the good offices of the respective parties. If such resolution is not possible, then the unresolved dispute or difference shall be referred to the Sole Arbitrator appointed by Scientific Secretary, ISRO, in accordance with the rules and procedures of the Arbitration and Conciliation Act 1996 or any modification thereof. The decision of the Arbitrator shall be final and binding on the parties. The expenses for the arbitration shall be paid as may be determined by the Arbitrator.

#### 6.13. Counter Terms and Conditions of Suppliers:

Where counter terms and conditions/Printed or cyclostyled conditions have been offered by the supplier, the same shall not be deemed to have accepted by the Purchaser, unless specific written acceptance thereof is obtained.

#### 6.14 Security for Purchaser's Materials

Successful tenderer will have to furnish in the form of a bank guarantee or in any other form as called for by the Purchaser towards adequate security for the materials/property by the purchaser for the due execution of the contract.

#### 6.15 Force Majeure:

Stores/Services supplied by the Purchase order/contract be delayed due to reasons of Force Majeure which shall include Lock-outs, strikes, riots, civil commotions, fire accidents, acts of God and war, stoppage of services by Government, refusal of or non-receipt of import license for import items, the delay in services shall be extended by a period(s) not in excess of duration of such force majeure. Each party undertakes to advise the other as soon as it becomes aware of the circumstances of such force majeure, so that actions under the provisions of this contract can be mutually reviewed and agreed upon between the contractor and the purchaser. If the force majeure condition extends over a period of six months both the parties of the contract shall mutually discuss and arrive at an agreement for continuation or termination of the contract.

#### 6.16. Integrity Pact (IP)

The successful tenderer has to execute an Integrity Pact(IP) as per our requirement.

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