

# **NewSpace India Limited**

(A Govt. of India Company under Department of Space) ISRO HQ, New BEL Road, Bangalore – 560094

July, 2025



NSIL/ SBS/ RFI/ 2025

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## 1. BACKGROUND

NewSpace India Limited (hereinafter referred to as "NSIL") incorporated on 6<sup>th</sup> March 2019 (under the Companies Act, 2013) is a wholly owned Government of India company, under the administrative control of Department of Space (DOS). NSIL is the commercial arm of Indian Space Research Organisation (ISRO) with mandate to commercially exploit Space Based Products and Services emanating from Indian Space Programme. NSIL provides satellite capacity to various users for broadcasting and telecommunication applications.

NSIL owns and operates a fleet of 12 in-orbit communication satellites from various geo-stationery orbital locations. NSIL satellites, operating in C, Ext C, Ku and Ka band provides the Space segment capacity for various SATCOM based services like – Broadcasting, DTH, VSAT, IFMC and so on. NSIL user group involves both public and private sectors.

## 2. SCOPE

In order to provide continuity of services to its users and to augment the existing satellite capacity, NSIL is considering possible procurement of in-orbit satellites from global satellite operators as outright procurement.

In this regard, NSIL is requesting information from global satellite operators for a procurement of in-orbit satellite(s) having capacity in C or Ku bands (or both), which can be moved to one of the Indian orbital locations anywhere between 55°E to 100°E for a minimum of five years of operation period. After the completion of operation or completion of mission life; the satellite would be de-commissioned and re-orbited.

### 3. Bid Process

- **3.1.** NSIL intends to adopt a two-stage process for selection of satellite for outright purchase. The process includes the following:
  - 3.1.1. **Request for information (RFI):** Seeking information from Global operators for identifying technically suitable satellites for consideration by NSIL
  - 3.1.2. **Request for Proposal (RFP):** Based on the outcome of the RFI process, NSIL may seek detailed techno-commercial proposal from technically qualified Respondents; for further evaluation and decision for outright purchase of the satellite.
- **3.2.** In response to this RFI, Respondents are requested to submit their responses based on the format given in **Annexure-1**. The information is sought in three sections –

Section -I: Company information of the Respondent.



**Section -II:** Techno-commercial information to be submitted by the Respondent for assessment by NSIL.

**Section-III:** A statement of technical compliance and a Rough Order of Magnitude (ROM) Price for the offered in-orbit satellite.

- 3.3. Time limit: Responses to the RFI shall be submitted on or before August 07, 2025 (1600 Hours)
- 3.4. Submission of proposals: Please submit your proposal to:

#### **Manager - Commercial**

NewSpace India Limited, No. 20, Brigade Rubix, 11th Floor Phase – 1, Yeshwanthpur, HMT Factory Main Road Bengaluru, Karnataka – 560 013 Phone No: +91 080 2322 7777 (Ext: 137) Email ID: purchase@nsilindia.co.in

The response to the RFI must be submitted through email from a verifiable official email address from the respondent and/or on Hard copy. A draft of covering note to the response is given in **Annexure-2**.

- **3.5.** Additional Details: Any further details in connection with this service may be provided by the Respondent.
- **3.6. Disclaimer**: The RFI is issued for information and planning process and does not constitute solicitation. The issuance of this RFI does not obligate NSIL to award a contract.

#### 4. Desired Technical specification of satellite

- 4.1. Type of Satellite: Bent pipe satellite suitable for Fixed Satellite Services (FSS) application
- **4.2. Operation of Satellite**: The offered satellite by the Bidder/ Respondent must have been in operation for at least three (3) years.
- **4.3. Bidder**: The Bidder must be the owner and operator of the offered satellite.
- **4.4. Satellite Related Technical information:** Bidder shall provide technical details of the spacecraft as well as payload as part of the process. These include launch date, manufacturer, list of anomalies, predicted end of life, existing mission control center, ITU filing details, performance parameters etc. The Respondent should provide technical clarifications as and when required while the bid evaluation is in process.



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#### 4.5. Payload of the satellite:

- 4.5.1. C Band Payload: The offered satellite(s) should have C band communication payload. The C band payload must have the band 5925 6425 MHz ↑ /3700 4200 MHz ↓ operational with linear polarization. The C band payload of the satellite should have a global/ hemispherical coverage. Indicative footprint of C band payload is given in Annexure-3.
- 4.5.2. Ku Band Payload: The satellite should have Ku band frequencies 14 14.5 GHz ↑/ 10.95
   11.2 GHz, 11.45 11.7 GHz ↓ with India coverage along with the Indian islands. Indicative footprint of Ku band payload is given in Annexure-4.
- **4.6.** The satellite shall be fully capable of supporting C Band and/or Ku band Fixed Satellite Services.
- **4.7.** Satellite must be having a minimum of 12 transponders (36 MHz equivalent) in C band. The Ku band payload may also have at least 12 transponders (36 MHz equivalent). In case the payloads are in more than one satellite, the Respondent may provide details of both the satellites separately.
- **4.8.** The other important technical specifications that are necessary for consideration are given in the table below –

No	Desired Technical Parameters	Specification
1	Polarization	Linear
2	Satellite Capacity	At least 12 X 36MHz in both bands as applicable
3	Downlink EIRP of Satellite	>= 40 dBW for C band >= 51 dBW for Ku band
4	G/T of Satellite	>= -4 dB/K for C band >= +3 dB/K for Ku band
5	Saturation Flux density	In the range of C band: -92 ± 2 dBW/m <sup>2</sup> Ku band: -96 ± 2 dBW/m <sup>2</sup>
6	Cross-pol isolation of the Satellite	Minimum 30 dB (Ground verified) Minimum 26 dB (Ground to Space link verified)
7	Intermodulation and Spurious of the Satellite	-18 dBc or better

- **4.9.** If the satellite contains transponders with frequency bands other than the combinations indicated above, the same should also be mentioned in the proposal. NSIL reserves the right to accept or keep these bands unutilized.
- **4.10.Telemetry, Tracking & Command frequencies:** The satellite should be having TT& C frequencies in C or Ku band. A tunable TT& C frequency would be preferred. Detailed information



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on TT&C like frequencies, EIRP, G/T, Coverage, polarization, redundancies shall be furnished for TT&C. Feasibility and operability of TT&C operations from Indian main land may be stated. For the operational five years period under reference, the TT&C operation should be performed from India.

- **4.11.** Once the procurement process is completed, the TT&C operation for movement of the satellite from original location to a NSIL operated orbital location anywhere between 55°E to 100°E, would be conducted from an Indian ground station. The Respondent must share the relevant technical information for the same and should provide support for the operation in case the satellite is not visible from any Indian ground station.
- **4.12.** In case both payloads (C & Ku) are not available on one satellite the Respondent may choose to offer multiple satellites and all technical details and price offer may be submitted separately.



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Annexure-1

# Section-I

#### **Respondent Profile**

# A. Brief profile of the Respondent

NO.	PARTICULARS	DESCRIPTION
1.	Name(s) of the Eligible Respondent Firm	
2.	Year & Country of Establishment	
3.	Legal status of Eligible Respondent (company, Pvt. Ltd., LLP etc.)	
4.	Name and Designation of the authorized representative of the respondent	
5.	Contact details – address, official email id, mobile	
6.	Main business of the Eligible Respondent	
7.	Core capabilities of the Eligible Respondent (Brief, not more than two pages)	
8.	Registered office address with contact number and email id	
9.	Corporate website URL	
10.	Local address in India, if any, with contact number and email id	
11.	Addresses of manufacturing and/or operational setup in India	1. 2. 3.
12.	How many satellites are currently operational and in GEO orbit, in case of an established satellite operator	
13.	Name some of the satellites in your fleet and their corresponding orbital location	



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### B. Brief Financial information of the Respondents (in US\$)

Particulars	2022 - 23	2023 - 24	2024 - 25
Annual Turnover			
Net Worth			
Net Revenue from Operations			
% of Revenue from SATCOM			
Segment/Unit			
Paid up Capital			
% of shareholding by Indian			
Entity (if any)			
% of shareholding by foreign			
entities			

## C. Summary of Shareholding Pattern of the Respondent

Sl. No	Name/ original country of Shareholders	No. of shareholders	% of shareholding
Total			100%

Note: Name and country of the of foreign stakeholders shall be mentioned.



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## Section- II

## **Technical Offer**

NO.	PARTICULARS	DESCRIPTION
1.	Name of the satellite being offered	
2.	Present orbital location and how many years it is operational there	
3.	Satellite Manufacturer, platform utilized	
4.	Launch date, launch vehicle used, Planned mission life	
5.	<ul> <li>Satellite features - brief description on</li> <li>Power, mass and propellant budget,</li> <li>Attitude &amp; Orbit Control System (AOCS) details</li> <li>Various modes of operation,</li> <li>Propulsion system,</li> <li>Antenna System</li> </ul>	
6.	<ul> <li>Satellite level nominal technical specification –(please provide details wherever necessary)</li> <li>Antenna pointing error limits,</li> <li>Eclipse operation support capability,</li> <li>Particle radiation protection on orbit,</li> <li>Definition of axes,</li> <li>Station keeping capability,</li> <li>Spacecraft reliability,</li> </ul>	
7.	Did the satellite face any technical anomaly or partial failure in any subsystem since the launch; if so, provide details thereof, how much the life expectancy has come down due to partial failure	
8.	If the satellite has been insured for in-orbit operation, if so the details thereof	
9.	Details of usable payload • Frequency Band • Frequency /Channel plan • Coverage	
10.	Present operational usage – Frequency band wise for different services and the % utilization of total capacity in satellite	Page 8 of 15

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11.	<ul> <li>Nominal technical specifications - <ul> <li>(C band &amp; Ku band to be provided separately)</li> <li>EIRP (Edge of Coverage)</li> <li>G/T (Edge of Coverage)</li> <li>Operational Flux Density Range</li> <li>Operational IBO/ OBO</li> <li>Intermodulation and Spurious of the Satellite</li> <li>Whether ALC mode operation is possible for KU band</li> </ul> </li> </ul>	
12.	Telemetry, Tracking & Command frequencies • Frequency band of operation • Footprint of the beam • EIRP & G/T of TT&C	
13.	<ul> <li>Details of ITU filing for each of the payload &amp; TTC</li> <li>Administration</li> <li>Name of filing</li> <li>Status</li> <li>Coordination with India (if applicable)</li> </ul>	

## **ROM Price Information**

Sl. No.	Commercial Terms	Specification
1.	Satellite Offered	
2.	Rough Order of Magnitude Price (in US\$)	
3.	Non-Recurring Charges, If any	
4.	Indian Withholding Tax (if applicable, in %)	
5.	Service Tax (if applicable, in %)	
6.	Any other applicable taxes, duties, levies or any other charges	



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## Section III

# **Technical compliance**

No	Technical Parameters	Required Specifications	Respondent Specifications	Compliance (Yes/No)	Remarks
1.	Orbit	Geostationary Orbit			
2.	Service	Fixed satellite service (C and Ku band)			
3.	Payload Coverage	Global Coverage (C band) India Coverage with islands (Ku band)			
4.	Transponder type	Bent pipe			
5.	Orbital location of the Satellite	Any GSO Orbital location			
6.	Frequency Band of Operation	C-Band Uplink: 5.925 to 6.425 GHz Downlink: 3.7 GHz to 4.200 GHz Ku-Band: Uplink: 14 to 14.5 GHz Downlink: 10.95 – 11.2 GHz, 11.45 – 11.7 GHz			
7.	Satellite Capacity	At least 12 X 36 MHz (C -band) and/or 12 X 36 MHz (Ku band)			
8.	Downlink EIRP of Satellite	>= 40 dBW for C band >= 51 dBW for Ku band			
9.	G/T of Satellite	>= -4 dB/K for C band >= +3 dB/K for Ku band			
10.	Saturation Flux density	In the range of C band: -92 ± 2 dBW/m <sup>2</sup> Ku band: -96 ± 2 dBW/m <sup>2</sup>			
11.	Cross-pol isolation of the Satellite	Minimum 30 dB (Ground verified)			

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No	Technical Parameters	Required Specifications	Respondent Specifications	Compliance (Yes/No)	Remarks
		Minimum 26 dB (Ground to Space link verified)			
12.	Intermodulation and Spurious of the Satellite	-18 dBc or better			
13.	Mission Control Centre	TT&C operation to be performed from India after the procurement			



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Annexure - 2

#### **Bid Response cover letter**

(On the Respondent's letterhead)

To,

Deputy Manager - Commercial NewSpace India Limited, No. 20, Brigade Rubix, 11th Floor Phase – 1, Yeshwanthpur, HMT Factory Main Road Bengaluru, Karnataka – 560 013 Phone No: +91 080 2322 7777 (Ext: 137) Email ID: purchase@nsilindia.co.in,

Dear Sir,

Having examined the Request for Proposal (RFI) document dated \_\_\_\_\_\_, sent to us by NewSpace India Limited, we attach hereto the response to the RFI as required by you, which constitutes our bid for the RFI.

We confirm that the information contained in this response or any part thereof, including its exhibits, and other documents and instruments delivered or to be delivered to NSIL are true, accurate, verifiable and complete. This response includes all information necessary to ensure that the statements therein do not in whole or in part mislead NSIL in its short-listing process.

We agree to the unconditional acceptance of all the terms and conditions set out in the RFI document. Any queries or clarifications with respect to our bid may be sent to the following Primary and Secondary contacts for our company:

	Primary Contact	Secondary Contact
Name:		
Title:		
Company Name:		
Address:		
Phone:		
Mobile:		
E – mail:		

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It is hereby confirmed that I am entitled to act on behalf of our company/ corporation/ firm / organization and empowered to sign this document as well as such other documents, which may be required in this connection.

Dated this

(Signature) (In the capacity of)

(Name)

Duly authorized to sign the RFI Response for and on behalf of (Name and Address of Company) Seal / Stamp of Eligible Respondent Witness Signature: Witness Name: Address:



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Annexure -3



# Desired footprint of C band payload

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### Annexure -4





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