



**IAFI Comments on In-Space
Draft guidelines for implementation of the Indian Space Policy 2023**

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Chapter 1

Introduction ITU-APT Foundation of India (IAFI)

We, the ITU-APT Foundation of India (IAFI), are a registered non-profit and non-political industry association registered under the Cooperative Societies Act of India. IAFI has been recognized by the International Telecommunication Union (ITU), the UN Organization for ICT issues, as an international/ regional Telecommunications organization and has been granted the sector Membership of the ITU Radio Communications Bureau (ITU-R), ITU Development Bureau (ITU-D) and ITU Telecommunication Standardization Bureau (ITU-T). IAFI is also an affiliate member of the APT. IAFI has been working for the last 20 years to encourage the involvement of professionals, corporate, public/private sector industries, R&D organizations, academic institutions, and other agencies in the activities of the ITU and APT. For more details regarding IAFI, please visit <https://www.itu-apt.org/>

Chapter 2

IN-SPACE Guidelines	IAFI comments
<p>Separate detailed guidelines shall be brought out by IN-SPACE, time to time, as part of its internal Standard Operating Procedure (SOP) for scrutinizing the different types of authorization applications on above considerations.</p>	<p>We request IN-SPACE to bring out a public consultation to get stakeholder views before formulating any additional guidelines</p>
<p>Any Indian Entity (NGE or Government entity) carrying out the space activities to or from Indian Territory or within the jurisdiction of India including the area to the limit of its exclusive economic zone needs authorization from IN-SPACE.</p>	<p>Comment: Article 56 and 58 of the UN Law of the Sea https://www.un.org/depts/los/convention_agreements/texts/unclos/part5.htm define rights, jurisdiction and duties of States in the exclusive economic zone</p> <p>Proposal: provide more explanation on how the jurisdiction on space activity extends beyond the national territory . Also see the treaty he Outer Space Treaty under which space is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means;</p>
<p>Any registered Indian Entity can seek authorization for establishment and/or operation of self-owned/procured/leased space object using Indian or non-Indian orbital resources or its capacity for communication services with coverage over Indian territory or non-Indian territory or both.</p>	<p>Some additional scenarios could be considered. The Indian Entity could either be</p> <ol style="list-style-type: none"> 1. Self-owned could be a 100% (direct or indirect) subsidiary of the satellite operator 2. An entity that procures or leases the space object or capacity 3. Can be an authorized representative of the satellite operator – Not necessarily is the lessee of cap
<p>Authorization Process: Timeline envisaged for processing the application is 4.5 months from the acceptance of the application, assuming the timely response from the different entities involved in the authorization process such as the applicant and other Departments/Ministries, as applicable.</p> <p>General Terms & Conditions of Authorization: 3. Processing time for the authorization is envisaged to be 4.5 months from the receipt of the application and complete</p>	<p>Comment: the processing time of 4.5 months seems too long, in particular to consider authorizing urgent cases as satellite in-orbit failure where a rapid migration has to be implemented.</p> <p>Note that there is a requirement to notify failures in General Terms 17: the applicant shall notify IN-SPACE in writing within seven working days of any circumstances that prevent the operation or operative control of the space object and of any change or termination of its space activity.</p> <p>Proposal: consider an exceptions clause for urgent force majeure cases occurring to authorized operations</p>

<p>information by IN-SPACe for some cases. It is, therefore, advised that the applications seeking IN-SPACe authorization are submitted well before the planned space activity for which the authorization is being sought.</p>	<p>"acceptance of the application" should be changed to "receipt of application" as specified at point 3, page 4 of the guidelines. It should preferable be the same at two places.</p>
<p>c. Use of non-Indian satellite capacity over India for space-based GSO and/or NGSO communications</p>	
<p>satellite operator of the non-Indian satellite(s) shall apply to IN-SPACe seeking authorization of their satellite(s) for use of its capacity over India through an NGE which could be their Indian subsidiary, Joint Venture/Partnership with any Indian entity or their authorized dealer in India.</p>	<p>Comment: this seems to prevent the satellite operator of the non-Indian satellite(s) to apply directly to seek authorization for the space segment, which would allow overall more flexibility. In any case, use of the non-Indian satellite capacity would still be only via authorized NGEs.</p> <p>Proposal: consider the following change "The satellite operator of the non-Indian satellite(s) or an NGE which could be their Indian subsidiary, Joint Venture/Partnership with any Indian entity or their authorized dealer in India shall apply to IN-SPACe seeking authorization of their satellite(s) for use of its capacity over India" Perhaps "dealer should be changed to "representative" all places.</p>
<p>d) The authorization will be valid till the end of operational life of the satellite which would be declared by the applicant at the time of seeking authorization. Fresh authorization shall be needed for the usage of capacity during extended operational life, if any.</p>	<p>Proposal: do not link the validity of the authorization with satellite lifetime or include renewal clause.</p> <p>In the case of NGSOs, the lifespan of the satellites are 5-7 years, and the authorization should not be limited to the end of operational life of a satellite. The validity of authorization should be at least 20 years.</p>
<p>e) The applicant shall provide details of arrangements made for obtaining the rights for using non-Indian orbital resource for the operations of the space object for which the IN-SPACe authorization is being sought along with the concurrence/approval of the concerned non-Indian administration.</p>	<p>Comment: this may concern confidential data. It would be enough to get a letter of confirmation from the non-Indian administration granting the right to use their orbital position.</p> <p>Proposal: Simplify this clause.</p> <p>While applicants can provide the concerned approval of the non-Indian administration, it will be difficult to obtain a concurrence from such administration on the grant of authorisation by IN-SPACe .</p>
<p>f) A detailed interference analysis shall be carried out by the applicant with a view to protect operational Indian satellites and/or Indian ITU filing(s), which are</p>	<p>Comment: further clarification required.</p> <p>Proposal: Provide more explanation of how to comply with this provision. In some instances, coordination may still be ongoing. Some time, it takes</p>

<p>being considered as potential candidates for the planned satellites by Indian Entities, in both GSO and NGSO, while submitting the application to IN-SPACE pertaining to the specific orbit-spectrum resource(s).</p>	<p>years to finalize</p> <p>In the case of NGSOs it should be adherence to Article 22 EPFD limits in applicable bands and coordination with Indian ITU filings in bands that are not covered by Article 22. For Article 22, it could be a ‘favourable finding’ from the ITU and for coordination, it could be a letter submitted indicating coordination between NGSO operators or between NGSO and GSO operators. ‘Potential Candidates’ that is referred to in this point should be as per the ITU priority.</p>
<p>g) Applicants who are willing to bring in the operation of their satellites, which are using non-Indian orbital resource, under Indian ITU filing eventually with appropriate arrangement within the ambit of ITU regulations or who could provide significant value addition to Indian Space Sector (in terms of local manufacturing of user terminals, launches by Indian launch vehicle, manufacturing in India and operations under Indian ITU filing for the replacement satellites, etc.) shall be given the preference for authorization.</p>	<p>Comment: the purpose of this text seems ambiguous, because InSpace will have to define “significant value”. An assessment of significant value is likely to be abstract or difficult to quantify, potentially leading to transparency issues.</p> <p>Proposal: applications should be encouraged instead.</p> <p>In the case of NGSO, this is not feasible.</p> <p>Companies that do manufacturing/exports from India of substantial value but not necessarily a space related manufacturing/export should also be given preference for authorization.</p>
<p>h) One time authorization per satellite, valid till the end of declared operational life of the satellite, shall be provided to the authorized entity. Hence, the authorization shall be applicable for the satellite and capacity which is being authorized and any change or replacement of the space object and/or need for additional capacity shall require a fresh authorization.</p>	<p>Comment: this is quite rigid given the potential need to change the satellite in use for operational or other reasons; in those cases, the authorization process should be simplified.</p> <p>This should be applicable for a given filing and not a satellite in the case of NGSOs. In the case of NGSOs, the lifespan of the satellites are 5-7 years, and the authorization should not be limited to the end of operational life of a satellite. The validity of authorization should be at least 20 years.</p>
<p>i) Fresh authorization from IN-SPACE shall be required for authorizing the use of those non-Indian satellite capacity which is already being used in India either through lease agreement involving NSIL/Antrix (DoS) or through direct lease from the non-Indian satellite operators. However, usage</p>	<p>Comment: not clear about consequences of the outcome of the request for the fresh authorization result in non-compliance with some new requirements, as the need to submit interference analysis.</p> <p>Proposal (i): Consider the regularization of systems already in use on a case-by-case basis.</p>

<p>of such capacity shall be permitted till the end of the lease agreement/contract made through NSIL/Antrix (DoS) or the lease agreement signed directly with the non-Indian satellite operator or one year from the release of these guidelines, whichever is later. IN-SPACe, however, may extend this time limit for seeking its authorization for the exceptional cases, if necessary.</p>	<p>Proposal (ii): the existing approved non-Indian satellite capacity which is already being used through lease agreement or through direct lease should be smoothly transferred to IN-SPACe <u>without the requirement of seeking a new authorisation from IN-SPACe.</u> The existing approvals are based on coordination agreement with ISRO & approvals from the APEX committee.</p>
<p>Application Form: Use of non-Indian satellite capacity over India for space-based GSO and/or NGSO communications</p>	
<p>2- Whether the applicant is Indian subsidiary, having Joint Venture/Partnership with the satellite operator or their authorized dealer in India?, Please specify</p>	<p>Proposal: based on the comment further above (point b)) change to “Whether the applicant is the satellite operator, its Indian subsidiary, having Joint Venture/Partnership with the satellite operator or their authorized dealer representative in India?”</p>
<p>3- Whether the non-Indian satellite capacity is already being used in India either through lease agreement involving NSIL/Antrix (DoS) or through direct lease from the non-Indian satellite operators. If so, the details (such as copy of lease contract, validity, etc.) may be provided</p>	<p>Comment: copy of the lease contract may be confidential commercial data.</p>
<p>9- Satellite(s) details such as manufacturer, lift-off mass, orbital slot/orbit parameters, orbital planes / satellite per plane, constellation configuration & architecture, bus type, station keeping propellant, power, etc., as applicable</p>	<p>Comment: This should be deleted as the applicant does not have all those data? Should the satellite owner disclose all those details?. Please clarify.</p> <p>Parameters such as lift-off mass, manufacturer of satellite, bus type, station keeping propellant are subject to ITAR. We have concern that many applicants will not be able to share this. They will be able to share parameters relating to the payload operation that are as per the ITU filing and/or the data submitted to the notifying administration for approval</p>
	<p>If the applicant is not the satellite operator, they will have to ask the satellite operator for this info</p>
<p>Payload and Ground Segment Details (items 12 to 16 and 17 to 19)</p>	<p>Comment: most of this information refers to confidential commercial data which the satellite owner may not be able to disclose</p>
<p>ITU Filing Details 23- Details of coordination agreements signed with</p>	<p>Comment: most of this information is confidential and can contains commercially sensitive information.</p>

