

Singapore
27 October 2021

RE: Consultation on Space Based Communication Policy of India- 2021

This submission is being made on behalf of the Asian Satellite Coalition (ASC) and its parent organization, the Asia Video Industry Association (AVIA). ASC is a pan-regional coalition of international satellite operators, whose purpose is to conduct active liaison and information exchange with Asian regulatory bodies, as well as regional international organizations. ASC's activities are focused principally on ensuring adequate spectrum is available for satellites to help power continued growth and development of the Asian economies. A key part of ASC's effort is to help regulators manage and mitigate interference among various technologies which are users of adjacent spectrum.

AVIA is the trade association for the video industry and ecosystem in Asia Pacific. AVIA's aim is to support a vibrant video industry for the benefit of all stakeholders. Many of our members operate and invest in markets across the region. They include multi-platform content providers, conditional access and middleware technology platforms and, in particular, for the purposes of this submission, the satellite operators providing the broadcasting technology needed to conduct business both within and outside of India.

ASC and AVIA welcome DoS' publication for consultation of the Spacecom Policy – 2021 draft. We appreciate the Indian authorities' recognition that the space industries require nurturing, and that they are fundamentally international in scope, while subsisting through the regulatory jurisdiction of national regulatory authorities. We welcome the determination of the Indian government to open this industry to greater private-sector participation.

We especially welcome the clear intention behind this draft policy to create a stable and transparent environment to attract investment, promote fair competition, and guarantee the rights of users, operators and investors, domestic and non-domestic, on a non-discriminatory basis. We believe if this is fulfilled it would enhance economic development and social welfare by facilitating the development and deployment of advanced satellite communications systems in India to the benefit of public, private and government users.

AVIA had previously written to the Department of Telecommunications in July 2021 about issues flowing from space communications policy, and the DoS was sent a copy of those views. In this submission, we would like to update those views.

Spectrum:

We warmly welcome the DoS' recognition in the Spacecom Policy 2021 document that satellite communications are dependent on availability of coordinated and cleared radio spectrum. The draft quite properly notes that appropriate measures are required at both the national and international levels to mitigate interference that may emanate from terrestrial or neighbouring space assets to orbiting satellite systems. The current draft, in paragraph 8.3, expresses this concern with respect to "Indian orbital resources that are acquired through the ITU process;" we would suggest that this language could be usefully broadened to include all ITU-recognized orbital resources that operate over India, as India relies on communications to and from many approved and coordinated satellites, not all of which are under Indian registration. Protecting all these communications from harmful interference is very much in the interest of Indian industries which rely on satellite communications. We would suggest that paragraph 8.3 be altered to note the importance of interference mitigation for all space systems, whether operated using Indian, or non-Indian orbital resources, consistent with the ITU satellite network filing process.

Paragraph 8.4 also addresses interference issues in a very positive way. It states that when making frequency allocations for new telecommunications services, the concerned Indian ministries will make "coordinated efforts...for ensuring the operational continuity of space assets." This is a vital recognition that as new services arise that require telecom spectrum, serious attention and coordinated work is required among the relevant ministries and agencies to ensure that the spectrum is allocated with due care to ensuring protection of space-based services. We applaud the DoS' inclusion of this matter in the Spacecom Policy.

Orbital Resources

The Spacecom Policy draft, in section 6.7.5, allows for use of non-Indian orbital resources ("NIOR") for GSO satellites only if such resources are eventually brought under Indian administration. This will be a huge challenge for any current foreign satellite provider or lessee; it assumes that foreign administrations exercising their own sovereign rights will agree to transfer their orbital resources to Indian administration. The Spacecom Policy draft seems to assume that non-Indian space system operators have the ability to pressure the governments which have licensed their orbital resources into compliance; in the real world satellite operators do not exercise that type of leverage over their sovereign licensors. One can wonder if India would agree, if the situation were reversed and a foreign government sought to require transfer of Indian orbital resources in order for Indian companies to obtain access to foreign markets.

Such a condition of transfer of orbital resources also raises questions of its feasibility in accordance to ITU Radio Regulations, and unexpected consequences on coordination and

recognition status with respect to third parties' orbital resources. The Radio Regulations Board of ITU considered a request to change the notifying administration for some ITU filings during its 72th meeting in May 2016, and concluded that *"there is no provision of the Radio Regulations that provides for the transfer of the function of notifying administration applicable to this specific situation. Furthermore, the Board considered that such a request could only be considered by a competent conference."*

Inclusion of this obligation runs counter to international practice, and will reduce the investments by foreign companies in serving the satellite communication needs of Indian consumers. It will reduce competition in the marketplace and deny the Indian economy the economic benefits of access to global satellite systems. More importantly, the obligation is likely to impede the ability of Indian satellite systems to provide services in other countries. Many countries will only allow foreign satellites to provide service within their territory if their satellites have reciprocal opportunities to provide service in the foreign country. An obligation to transfer orbital resources to India would likely be considered an unreasonable barrier to entry by foreign satellites in India, resulting in denial of market access for Indian satellites in the countries that apply a reciprocity test.

Questions of the compatibility of this policy with ITU regulations cannot be answered without further clarifications. In case section 6.7.5 is to be maintained, we urge the Government of India and the DoS to provide more specific clarity on the meaning of "through an appropriate arrangement with the concerned foreign administration" to bring the orbital resources under Indian Administration. We would request DOS to prescribe a process for this to be implemented and make it public, so that all interested parties can transparently review and implement it.

In any case, instead of requiring that non-Indian orbital resources be brought under Indian administration, we would respectfully suggest that a different solution be adopted and that GSO satellites be treated in the same manner as Non – GSO satellites which under the Spacecom Policy will continue to use non-Indian orbital resources. NGSO communication systems are required to provide arrangement details for use of non-Indian space assets, ensure availability of user gateways, adopt mechanisms to address cyber security concerns and make available interference monitoring capability in India. Assuming these same measures are adopted for GSO satellites, we would humbly suggest that these should provide the government with the necessary security assurances without resorting to the introduction of more stringent measures that are likely to discourage foreign satellite operators from serving India.

The additional infrastructure offered by international satellite providers is key to meeting accelerating user demand. Confronting GSO-based system operators with a choice of bringing space assets under Indian administrative control, or exiting the Indian market will produce

market chaos along with some service curtailment. It will prevent local Indian entities from working with foreign satellite service providers to distribute their capabilities in India, in turn thereby reducing choice for the Indian entity consuming the satellite services.

These outcomes are highly undesirable, for both Indian and international players. We respectfully suggest that the Indian authorities not make licensing of services subject to commitments for transfer of orbital resources. A more open approach will benefit Indians far more than a restrictive regime.

Level Playing Field and Independent Regulator

When India announced structural reforms for the space sector in May 2020, it was stated that a “level playing field” would be provided to private companies, along with a “predictable policy and regulatory environment.”¹ Indeed, these are essential features of a regulatory “environment for increased private (non-governmental) participation” in the space-based communications sector.

Key to providing a “level playing field” is having an independent regulator administering a set of predictable policies and rules. It will be important, therefore, to ensure that the part of DOS and IN-SPACe responsible for creating, applying and enforcing the rules and procedures under the new Spacecom Policy is independent from the parts of DOS, ISRO and identified PSU/CPSE involved in the procurement, manufacture and operation of the INSAT and GSAT satellites. Private participation in satellite communications will only be boosted if the regulatory playing field is not tilted in favour of the Government’s satellites, and if the new rules and procedures are applied fairly and transparently in a manner that actually enables new entry by private players.

In this regard, the part of IN-SPACe responsible for making the procedures for Spacecom authorizations should be independent of the parts of DOS, ISRO and IN-SPACe that will be participating in the market for spacecom services, in order to create trust in the regulatory environment and to avoid potential conflicts of interest. In addition, the parts of the Spacecom policy relating to the protection of ISRO’s space assets (e.g. Section 6.7.6, 7.4, 8.3) should not be used to unreasonably restrict new entry, impose unreasonable constraints, or extract unreasonable concessions from new entrants as a condition of market entry.

The establishment of the PSU/CPSE to carry out the business of ISRO’s operational space assets (see Section 7.2) should also be on terms that ensure fair competition with private players. The 2020 draft of the Spacecom Policy proposed to transfer ISRO’s satellite assets to the PSU/CPSE at “no/notional cost.” This would have resulted in a highly un-level playing field for private

¹ See Ministry of Finance, *Finance Minister announces new horizons of growth; structural reforms across Eight Sectors paving way for Aatma Nirbhar Bharat*, at <https://pib.gov.in/PressReleasePage.aspx?PRID=1624536>.

players competing with the PSU/CPSE. ASC is pleased that this concept is not in the 2021 draft of the policy, and would urge DOS to ensure that any such transfer of assets to the PSU/CPSE takes place on a fair and transparent basis, consistent with the Government of India's promise of a "level playing field."

Strategic and Societal Communications

The draft 2021 Spacecom Policy inflexibly reserves the "strategic" and "societal" communications sectors to DOS and DOS alone. ASC would urge the DOS to consider a more flexible approach for each sector.

For "strategic communications" (or government) sector, national security considerations will often favour the use of government-owned and operated satellites naturally. However, not all government communications have national security dimensions that would necessitate use of DOS/ISRO satellite capacity. Many basic e-Government services, with limited national security concerns, can and have been delivered effectively and securely using non-ISRO satellites. Moreover, even in the field of national defence, non-ISRO satellites may be useful in providing satellite bandwidth to Indian forces operating beyond the coverage of ISRO satellites. Accordingly, we urge that DoS consider giving strategic users the option of accessing non-ISRO satellites in situations that are not highly sensitive or where their requirements cannot be met using ISRO satellite capacity.

With respect to satellite programmes for "societal development", e.g. "in the areas of tribal development, social empowerment, health, education, disaster management, etc.", the case for DOS/ISRO exclusivity is even weaker given the muted national security concerns. In fact, such social development programmes will benefit tremendously from a competitive supply of satellite capacity from multiple satellite operators (both government and non-government), leading to lower cost and faster deployment of such programmes. While it is possible that the deployment of societal development programmes might not be commercially viable in some parts of India, it would be unwise to pre-determine the result and to reserve the entire sector for DOS/ISRO.

Effect on International Satellite Operators

The Draft document does a very good job of promoting Indian private entities in the space communications sector. However, as the government is aware, about 50% of India's current consumption in the commercial market (DTH/Media/VSAT) comes from capacity on foreign satellites. It is important for the national spacecom policy to clearly address how this consumption of services carried on foreign space assets would be addressed going forward under the new policy.

Except for one clause, Clause 6.5, the whole document is silent on this aspect. Even that clause (which says – “Any space system realized in India, but operated as a foreign owned space system, without any liability to Government of India, does not require authorization of IN-SPACe.”) is fairly ambiguous and needs clarity on whether currently used foreign satellite assets qualify, or whether future LEO constellations would qualify under this clause.

Other Matters

The document clearly states the Indian government’s position of subscribing to ITU procedures as described across several clauses (8.2, 8.4, 6.7.3, 6.7.4 etc). We do note that the same ITU coordination process will be used to review the Authorization once already granted, in the event of any open Indian ITU coordinations that may be ongoing with a concerned foreign space system operator, as described under Clause 6.7.6. This contradicts the provision under Clause 4.28 which suggests that Authorizations can be one-time only and need not require any further permissions. This puts at risk any foreign entity who brings in FDI in India, promoted under Clauses 4.2.6 and 6.7.12, and acquires the necessary Authorizations for a particular space asset at a specific orbital location, for the lack of ITU coordination at any other orbital location. The language puts commercial business authorization within India to be traded against potential ITU level coordination for other orbit spectrum resources. We request such ‘quid pro quo’ be dropped from a policy document.

Regarding section 6.7.9 of the draft Spacecom Policy, we propose that DoS clarify that such conditions are applicable to space assets owned and operated by the Indian Entity. Such measures for orbital safety and sustainability of space environment are the domain of the satellite operators, but not of the satellite users.

Regarding section 6.7.13, as a matter of clarification, we propose the addition of “authorized Indian” before “entity involved in space based communications...”.