RECOMMENDATION ON FRESH LICENSES FOR VSAT SERVICE

These recommendations are set out as follows:
I-Context
II-Discussion of Issues and Recommendations covering-
a)entry fee
b)revenue share as license fee
c)other aspects of license
III-Annexe I; containing background and overview of the consultation process.

I. CONTEXT

In pursuance of the objectives set out in the New Telecom Policy 1999 (NTP 99), announced in March, 1999, the Government of India requested the Telecom Regulatory Authority of India (TRAI) for recommendations (MoC, DOT letter No.815-66/98-LR dated 21.5.1999) on issue of fresh licenses for VSAT Service Providers under the NTP'99. Recommendations have been sought in the context of new non-exclusive licenses for VSAT Service for an initial period of twenty years, extendable by an additional period of ten years thereafter. Recommendations have been sought by the Government on the following issues relating to the issue of fresh licenses.

a)Appropriate level of Entry Fee
b)Percentage of revenue to be shared with the licensor
c)Other facets of license conditions

The rationale for arriving at the recommendations is to be made available to the Government along with the recommendations.

The Government has also conveyed that the following aspects may be considered while framing the recommendations:

a)Cost of equipment to the VSAT operator in Ku band is likely to be cheaper in comparison to the extended C-band equipment.
b)The Ku band ground communication equipment and antennae etc. are more versatile in transportation, handling and worldwide availability.
c)In INSAT system extended C-band has been designed and developed incurring huge infrastructure cost (both ground and space segments). This band is not available on any other foreign satellite. It would be desirable to ensure its utilisation.
d)The three forthcoming INSAT Satellite (3A, 3B and 3C) will carry 24 Nos. of extended C-band transponders.
e)In the light of what has been stated at (c) & (d) above, it would be appropriate that the new proposed license fee structure does not encourage migration from extended C band to Ku band.

In arriving at its recommendations, TRAI followed a public consultation process. The background in which the recommendations have been made and an overview of the consultation process undertaken by TRAI so as to arrive at the recommendations is placed at Annexe 1. Main issues are discussed in the following sections, along with our recommendations on each.

II. DISCUSSION ON ISSUES REFERRED TO TRAI AND THE AUTHORITY'S RECOMMENDATIONS

Background

Very Small Aperture Terminal (VSAT) Service started being licensed in India in 1994 to VSAT Service Providers for serving Closed User Groups. This service has been termed a Value Added Service and was opened to private sector entry under National telecom Policy 1994. The VSAT network comprises of a space segment and a ground segment, which is accessed by the end users. The space segment consists of transponder space in satellites and is usually arranged under lease. The ground segment consists of earth stations, hub, control centre, and VSATs of the group of end users. These VSATs may, depending upon technology choice, connect into a hub station or connect with each other in a mesh pattern. The hub station is linked to the satellite transponder as a nodal mechanism. This design is relevant to Time Division Multiple Access (TDMA) technology. In Demand Assignment Multiple Access (DAMA) technology, the network control terminal is an empowered version of the remote VSAT terminals which interconnect in a mesh design.

The VSAT market has grown significantly since the introduction of private participation in 1994. Presently there are 12617 VSAT's in the country out of which 5905 VSATs have been provided by VSAT Service Providers. The trend of growth can be assessed from the fact that 4127 VSATs were installed in 1999-2000, an increase of 48.6% over the previous year. The total revenue generated by public VSAT Network Service was Rs. 295.3 crore in 1999-2000. The important segments where VSAT based networks have penetrated to a significant extent include banks and financial institutions, stock exchanges, credit card companies, and other manufacturing and infrastructure companies.

Issues and recommendations

ENTRY FEE

In considering the issue of entry fee that new VSPs may be required to pay the following aspects have been kept in view.

a) Size of the existing market & its expected growth rate
b) Existing level of competition
c) Need to keep out non-serious players
d) The appropriate level of entry fee & the justification for the same

Each of these is elaborated below.

There is a general expectation that given the right regulatory environment business prospects of the incumbents as well as the new entrants will improve significantly. Of the fourteen licenses already issued (including one inclined orbit license), ten licensees have started operations. Two have already started making profits and a third licensee is expected to do so from this year. A few licensees are not doing well but in a market where licensing is an ongoing process without restrictions on the number of operators, some shakeout is inescapable. The consultation process has brought out that for the current market size, the existing level of competition may be considered adequate. As the market grows in size and enlarges its scope/area, the level of competition too would need to keep pace. However, there is need to keep non-serious players out of the market to avoid wastage of scarce national resources and in the interest of smooth transition of the market from the stage of limited competition to that of full competition.

The Authority considers that it is desirable to have an entry fee, in order to guard against blocking of frequency, transponder space etc. by non-serious players who have little interest in developing the market. An entry fee may be seen as the simplest mechanism to ensure that the end user actually reaps the benefits of liberalization taking place in the telecom sector.

The existing VSPs have not paid any entry fee, although they have paid the minimum license fee for the years that they have held the license so far. While there appears to be a broad consensus in favour of levying some kind of entry fee in order to keep non-serious players out of the market, the question whether this has to be linked to the license fee paid so far by the incumbent VSPs, brought out divergent views. The incumbent VSPs pleaded in favour of levying an entry fee for new entrants at par with the minimum license fee paid so far by them under the existing licensing regime. In their opinion this would ensure a level playing field. However, it has to be kept in view that the existing VSPs have had 'first mover' advantage and now own a reasonably good customer base as well as an established brand name. In keeping with the policy objective of generating sufficient investments in telecommunications, and recognizing that VSAT service offers a reliable media for data traffic which is expected to increase as the net economy grows (with the advantage of reaching remote locations), it is considered appropriate to fix entry fee at a level which is adequate to deter non-serious players but without becoming an undue burden deterring fresh investments.

In the case of GMPCS which is also a satellite based service the entry fee has been recommended at Rs. 1 crore. For VSAT service, which is limited to Closed User Groups (CUGs), the entry fee cannot be higher than the entry fee for the other satellite based commercial service i.e. GMPCS.

The Authority is of the view that entry of non-serious players should be addressed by a combination of a moderate entry fee of Rs. 30 lakhs and an additional charge for each year of delay in commissioning of service for the next two years. This entry fee, however, will be utilised towards the prescribed per VSAT licence fee and surcharge where applicable, as the roll out takes place. The idea behind such a structure is that while non-serious players are discouraged, no avoidable financial burden is placed on serious players. A minimum rollout obligation of 5 VSATs along with the hub within one year of the grant of license may be stipulated in the license. In the event of failure to fulfil the roll out obligation the licensee will be obliged to pay an additional entry fee of Rs. 10 lakhs for delay up to 1 year, and another Rs. 10 lakh if the delay is more than 1 year but less than 2 years. If the roll out obligation is not fulfilled by the end of two years, the license would be terminated. The first tranche of Rs. 10 lakhs may be taken as a bank guarantee together with the entry fee. If the service is commissioned within the first year, the bank guarantee should be returned. If the service is yet to be commissioned at the end of one year, an additional bank guarantee of Rs. 10 lakhs should be taken from the licensee, and the first bank guarantee encashed.

REVENUE SHARE

The issue of revenue share that may be levied by the licensor has been examined in terms of:

a)the NTP 99 stipulation that VSAT licensees would also be required to pay license fee based on a revenue share,

b)the basis on which the revenue share is to be applied and its level,

c)the definition of revenue for the purpose, and

d)related and implementational of issues including whether the revenue shareshould be different for

i)shared hub and private networks

ii)different frequency bands and transmission speeds

iii)two-way and 'receive only' VSATs

iv)normal and inclined orbit operators.

Each of these issues is dealt with below:

NTP 99 stipulates that there shall be a one-time entry fee and license fee based on revenue share. The new policy framework envisages a twenty year non-exclusive license extendible by additional period of ten years thereafter. The present arrangement for license fee is in terms of a per VSAT charge subject to an annual minimum stipulated by the licensor (See Annexe 1). As an alternative to this and the revenue share option, it is possible to adopt a license fee structure that encourages the use and growth of VSATs while imposing greater discipline on the use of bandwidth.

The Authority is of the opinion, that it will be easier to implement a license fee charged on the basis of per VSAT, rather than as a revenue share. This is particularly so because VSATs are used both for private networks as well as for shared hub networks. The concept of revenue earned through VSAT services does not apply in a private network, although the Authority feels that it is desirable to have a common basis to charge license fee for both types of VSAT uses. Furthermore, a fee levied on per VSAT basis is expected to provide incentives for more intensive use of VSAT.

Since revenue is dependent also on the level of traffic which in turn is reflected in the bandwidth requirement, a component of license fee may be linked to bandwidth. Hence, in addition to the number of VSATs, the license fee structure may have a component to reflect the bandwidth used in terms of kbps by the CUG network.

Regarding the license fee per VSAT, the Authority is of the opinion that the amount should be substantially lower than what is being charged at present i.e. Rs. 50,000 per VSAT per year. The license fee presently being charged is proving excessive and instead of promoting VSAT services in the country, is actually turning out to be a hindrance. The Authority is also of the view that the amount of license feeper VSAT should be lowered as the number of VSATs in a network increases, so that there is good incentive to the service provider to extend the use of VSATs. Based on all these considerations the Authority recommends the following license fee structure:

<u>License Fee Per VSAT for basic</u>
<u>Rate bearer service i.e. 64 kbps</u>

1 to 500 VSATs	Rs. 20,000 per VSAT per annum, with a minimum amount of Rs. 30 lakhs per annum.#
501 to 1,000 VSATs	Rs. 15,000 per VSAT per annum, with a minimum amount of Rs. 100 lakhs per annum
Above 1,000 VSATs	Rs. 10,000 per VSAT per annum, with a minimum Amount of Rs. 150 lakhs per annum

the amount of Rs. 30.00 lakhs which is stipulated as the minimum license fee also serves the purpose of an entry fee.

The lower end of the recommended range of license fee is below the amount now being charged forVSATs used in privately owned networks. This has been done to encourage an extended use of shared hub VSATs to build private networks or CUGs. These VSATs cater to a number of organistions (on CUG basis) and by adopting this mode of operation there is much to be gained from economies of scale, and improved efficiency of utilization.

<u>No license fee for Receive only terminal</u>

The Authority is of the opinion that no license fee should be charged for 'Receive only' terminals. Use of these terminals needs to be encouraged in order to reduce the costs of distance education, dissemination of news and important messages, document delivery, Telehealth and other public services etc.

<u>Concessional License fee for inclined orbit operation</u>

The Authority has been informed by most existing services providers that they do not favour the use of inclined orbit operations. The Authority is aware, however, that there is a lack of consensus on this matter. The sole licensee for inclined orbit transponder space has indicated that recourse to this available resource which would otherwise lie idle is a feasible and viable option. After due consideration of the matter in all its aspects the Authority has come to the conclusion that for efficient use of satellite transponder space, it would be useful to continue to allow the possibility of inclined orbit operation. The quality of service in such operations can be maintained by using adequate tracking mechanisms. Further, as all satellites go into inclined orbit over a period of time, until we get over the problem of shortage of transponder space fully, it would be worthwhile to explore methods which could encourage use of scarce space segment. In this regard, the Authority is of the view that a differential license fee for inclined orbit operations would be appropriate. It is recommended that for these operations, a 25 per cent discount be applied for the per VSAT license fee, and also for the hub fee mentioned below. The minimum amount payable i.e. Rs. 30 lakhs, will remain unchanged.

The existing constraints on VSATs in respect of speed besides being highly restrictive from the angle of service and utility are clearly inconsistent with the policy framework of NTP'99 which aims at creating a robust communication infrastructure to be able to leverage on technological developments. The Authority is, therefore, in favour of permitting VSAT operators access to higher speeds for their services. However, while the use of VSAT networks should be encouraged for Nx64 kbps bearer services for multimedia applications such as video conferencing, they should be charged some additional license fee, considering the substantial addition to their range of services and the resultant potential for earning higher revenue. The Authority, therefore, recommends that an additional license fee be charged in the form of a surcharge per VSAT for higher than basic (64 kbps) bearer service on the CUG.

The following surcharge structure on the license fee is recommended which will be leviable per VSAT per annum.

a)Above 64 kbps and upto 128 kbpsRs. 10,000

b)Above 128 Kbps and upto 384 Kbps Rs. 20,000

c)Above 384 Kbps and up to 512 KbpsRs. 50,000

Royalty payable to the WPC Wing of the Ministry of Communications for use of radio frequency presently works as a surcharge on the already high per VSAT license fee. It is, therefore, recommended that in the interests of growth of VSAT services the Government may consider not levying yet another Rs. 5,000 per VSAT charged by the WPC Unit. The following charges which go to the WPC Wing may, however, be continued.

i)Royalty -Rs. 20,000 per annum for the hub station

ii)License fee-Rs. 100 per station (hub or VSAT per annum)

Although the reference from the Government pertains to fresh licenses only and the issue of migration of existing licenses to the new licensing regime has not been raised, there is a need to address it. This issue was raised repeatedly during the consultation process. TRAI is of the opinion that for the purpose of migration any additional entry fee is not called for as the existing VSPs have already been paying the minimum license fee per annum for the years they have been in operation

Definition of revenue: A definition of revenue has already been provided in TRAI's earlier recommendations relating to other services like NLD operations and basic services. In principle, in all cases the same definition applies. However, in this case it is not relevant immediately because the structure of license fee is not being directly linked to revenue calculations. However, while the license fee is not determined as a percentage of revenue, it is aligned to revenue. The license fee structure recommended above combines policy issues relating to efficient use of VSATs and ease of implementation, monitoring and verification under the license fee regime.

The license fee has been so structured that it does not particularly encourage migration from extended C band to the newly opened Ku band. TRAI has kept in view the importance of availability of adequate transponder space to support the growth of the service. However, it has noted that shortage of transponder has eased with the launch of INSAT 3B, and that the Department of Space (DoS) is now authorised to lease foreign transponder capacity to make up any shortfall.

The Authority feels that transponder space, whether on domestic or foreign satellite, should be available as per requirements, subject to certain specified conditions. These conditions may take account, inter alia, of the concern that investments made from public funds in developing the relatively robust, extended C band capacity on Indian satellites do not lie unutilised. However, the Authority is of the opinion that the license fee should not be used for differentiating between the various technology options.

At present, the license fee for VSATs does not distinguish between different bands. The distinction arises in the case of transponder lease charge. No recommendation has been sought with respect to transponder lease charge. The Authority is of the opinion that the license fee should not distinguish between different bands. Therefore, even though the Government wishes to encourage the use of extended C-band, license fee may not be treated as the tool to achieve this objective. License fee should be technology neutral so that the service providers may take advantage of the flexibility of opting for any technology and thus increase cost effectiveness of the operations. This would help reduce customer charges also.

OTHER ASPECTS OF LICENSE CONDITIONS

Other than the issues relating to the extent of competition, entry fee, license fee and migration, the issues considered by the TRAI are the following:

a) Whether VSATs should continue to be made available only to Closed User Group (CUG)

b) Conditions of interconnection with other networks, and the implications thereof. This includes interconnection with
   - networks of other VSATs,
   - terrestrial data lines leased by customers of VSATs,
   - terrestrial data lines of a public nature (e.g., stock markets),
   - overseas office of the CUG for data transfer purposes,
   - VANS operators,
   - PSTN, particularly in rural and remote areas,
   - With internet,
   - Other media to provide for redundancy

c) Limits on transmission speed.

d) Conditions governing voice traffic

e) Tariff and customer related issues.

(a) <u>Whether VSATs should continue to be available only to Closed User Group (CUG).</u>

The authority is of the opinion that given the likelihood of repercussions of a change in the CUG policy on other licenses, specially FSP, CMTS and NLD licensees the CUG nature of VSAT services should be maintained for thepresent. However, there is a need to reconsider the definition of CUG as it is being applied in the case of VSAT services. In the opinion of the TRAI there is a justification for the expansion of this definition so as to allow formation of a larger group by joining smaller groups of the same class of users having community of interest, such as groups of banks and financial institutions, health service providers, groups in the business of transportation, educational institutions and libraries and similar other groups which while retaining their separate group identities can together form a larger group with a wider community of interests. In such situations a number of CUGs may be seen as together forming a larger group serving a common interest. VSAT networks of such CUGs may be allowed to interconnect so that the reach and the utility of the pooled network and the available bandwidth with them is optimally utilised. The CUG definition enlarged on the aforesaid basis is expected to add substantially to the utility, acceptability and growth of VSAT based services in the country.

(b)**Conditions of interconnection with other networks**

The existing license for VSPs permits operation of VSAT in CUGs. The issue of interconnection with other networks and provision of internet services needs to be examined in the context of the policy framework enunciated by NTP 99. While the view that such interconnection may be permitted to deliver customer benefit was considered by this Authority, it is felt that such permission would have implications for other telecom service licenses that have been issued or are under issue. Interconnection with PSTN is not permitted in the existing license because of the possibility of bye-pass of the NLD network as voice carriers havebeen allowed on VSAT networks also for what has been termed as "occasional voice'. Generally CUG networks which are exclusive private networks are not allowed to be connected to the PSTN network. The Authority would, therefore, recommend that the existing policy be continued as far as PSTN connectivity is concerned. On inter-connection to other networks our recommendations are as under.

With,-

(i)networks of other VSATs

May be permitted by mutual agreement

(ii)terrestrial data lines leased by customers of VSATs.

May be permitted provided it is not connected to the PSTN network

(iii)terrestrial data lines of a public nature (e.g. stock markets)

May be permitted provided it is connected to a public data network such as Internet/INET

(iv)overseas office of the CUG for data transfer purposes

May be permitted subject to the clarification that such a connection should be between the hub and the server of the overseas office through a leased line passing through an international gateway which can be monitored for security purposes (v)VAN operators

May be permitted by mutual agreement. However, it should be ensured that the CUG character of the service is not changed by such connectivity. In other words words connectivity should be permitted when a clear community of interests is perceived between the two networks connected.

(vii)internet

The hub of the VSAT operator should be allowed to be connected to an internet node of his choice by a lease line. Similar inter-connection should also be permitted with INET.

(viii)Other media to provide for redundancy

Switchover between a terrestrial CUG network and a VSAT based CUG network belonging to the same party should be freely permitted.

(c)Limits on transmission speed.

The national technical specification issued by T.E.C. recently specifies various parameters such as antenna size, power level, flux density etc. for a maximum speed of 512 Kbps per VSAT. The Authority considers that for the present the upper limit of 512 Kbps only be allowed. This speed is considered ample to meet most of the applications run on VSAT networks including video conferencing.

(d)Conditions governing voice traffic

For reasons similar to those determining the Authority's recommendation that interconnection with PSTN is not warranted at present, the Authority is of the view that the extant conditions regarding voice traffic on CUG networks should not be changed. Occasional voice traffic which is permissible in the current licensing conditions may be continued.

(e)Tariff and customer related issues

The Telecommunication Tariff Order (TTO) 1999 of the TRAI forbears from setting tariffs for VSAT services since these are as yet essentially private network services rather than public network services. However, the existing license specifies tariff ceilings that need to be amended in accordance with the tariffs set by the TRAI. The need to review the forbearance prescribed by the TTO can, therefore, arise based upon the final conditions of service that are permitted by the licensor under the new license arrangement. This would be taken up by the TRAI at the appropriate time once the conditions for the new licenses are finalised by the licensor.

During the consultation process quite a few customers of VSPs brought up the issue that due to proprietary protocols used by VSATs provided by the respective VSPs, the customers' choice to switch from one VSP to another is restricted and, therefore, in effect the benefits of choice and advantages of a competitive market are not available to the customers. However, the Authority has noted that majority of the existing CUG networks employ proprietary protocols in the interest of security etc. In order that both these concerns are fairly met the Authority would recommend that, at least, the User-Network and Network-Network Interfaces should conform to standards iterfaces such as X25, X75, TCP/IP etc.

Annexe 1

1.This Section outlines the background in which the recommendations were sought by the Government from the TRAI and the process followed by the latter in formulating these. It also gives an overview of the consultation process followed for the same.

BACKGROUND

2.Paragraph 3.9 of the NTP 99 deals with the SATCOM policy. Paragraph 3.9.1 sets out the new policy framework for VSAT Service providers. The salient features indicated in the NTP 99 that form the basis for the present exercise are indicated below:

a)The SATCOM policy allows availing of transponder capacity from both domestic/foreign satellites, in consultation with the Department of Space.

b)Gateways for International Long Distance communication for data in the ISP Policy are permitted to use SATCOM.

c)Ku frequency band is permitted for communication purposes.

d)VSAT Service Providers shall be granted separate, non-exclusive licences for an initial period of 20 years, and these may extended by additional periods of 10 years thereafter.

e)VSAT licensees would be required to pay a one-time entry fee, and licence fee based on a revenue share.

f)The basis for determining the entry fee and the basis for selection of additional operators will be recommended by TRAI. The appropriate level of entry fee and percentage of revenue share arrangement would also be recommended by TRAI in a time bound manner keeping in view the objectives of the NTP. The NTP also indicates that the interconnectivity between service providers in different service areas shall be reviewed in consultation with TRAI and the same would be announced as a part of the structure for opening up NLD by 15.8.1999. The NLD policy has since been finalised by the Government.

3.The Government has also approved the implementation details for SatCom services in early 2000. The norms, guidelines and procedures for implementation of the SatCom policy fall under three categories:

i)Use of INSAT capacity by non-governmental agencies

ii)Establishment and operation of Indian Satellite Systems

iii)Use of foreign satellites for SatCom Services.

4.The changes in policy framework have brought in greater liberalisation and entail more flexibility in the operation of the projects as also lower costs.

5.The cost to customer is affected by the technology choice (e.g., TDM/TDMA vis-à-vis DAMA) because of the differences in capital cost structures. As ascertained from the Service Providers theminimum start up costs for TDM/TDMA based operations are about Rs 15 - 20 crore and those for DAMA are in the region of Rs 8 – 10 crore. The difference is mainly because of the mesh design in DAMA that eliminates the need for expensive hub equipment. However, the remote terminal costs to the end user are reported to be much higher for DAMA at about Rs 10-15 lakh per terminal, against about Rs 6 – 7 lakh per terminal for TDM/TDMA. DAMA technology also requires management software that costs additional about US $ 1,50,000. In recent times, however,the costs of equipment have been comingdown. The difference between the cost of terminals required for extended C Band and those required for Ku Band applications, has also narrowed substantially.Receive only VSATs that are useful for download applications are much lower in cost, and are available at less than Rs 1 lakh per terminal.

6. Licenses were granted by the Department of Telecom / Ministry of Communications (MoC) for Closed User Group (CUG) Domestic 64 Kbps Data Network via INSAT Satellite System (extended C band), also called Private VSAT Service Providers, with effective dates of license falling between August 3, 1994 and October 26, 1995. Information provided by MoC indicates that thirteen such licenses were issued, of which four licenses stand terminated as on date. A further provisional license for operation of 64 Kbps CUG VSAT using space segment in extended C Band on inclined orbit satellites of INSAT system has been granted in February 2000.
7. The licenses were granted for a period of ten years (five years for inclined orbit), and are extendible by one year at a time. These are all India licenses, with pre-specified license fee structure related to the number of VSATs. The licenses were granted on first come first served basis without going through any tendering procedure and without putting any limitation on the number of licenses which can be granted for Closed User Group applications. There was no bidding for frequencies either, which were made available at pre-fixed rates. The terms of license were announced in advance and potential service providers could make a request for licence on these terms and were given the license if they met certain conditions and offered an acceptable technical / roll out plan.
8. The current LF structure for VSAT SP's is Rs 50000/- p.a. subject to a minimum of Rs 1 crore for the first two years, Rs 1.5 crores for the third year, Rs 75 lakhs for the fourth and fifth years, and Rs 1 crore for the sixth year respectively. The minimum licence fee is payable in quarterly instalments in advance, based on the number of VSAT's in the previous quarter. A final adjustment ismade at the end of the year. The payment mechanism includes establishing an account by the licensee into which all revenues accruing from the licence will be credited. The licensor has a lien on 30% of the amount of funds credited, limited to one quarter's licence fee. In the first two years after commissioning, the licensor may retain 'nil' lien till the financial position of the operators builds up sufficiently.
9. Licence fees and royalty payable to the WPC Wing of the Ministry of Communications for use of radio frequencies is in accordance with WPC

rates. These are presently indicated to be:

(i)**Royalty**: Rs 20000/- for Hub Station and Rs 5000/- per VSAT station, p.a.

(ii)**Licence fee**: Rs 100/- per station (Hub or VSAT) p.a. (Condition 21 of Schedule C)

The licensor reserves the right to review the license fee at its discretion.

10.Payment for communication resources and other support facilities provided by DoT is to be paid according to the resources taken by VSAT Service Providers (VSPs). Further, the charges for usage of transponder/space segments are also to be paid for. The required space segment shall be reserved from the date of signing the Agreement on INSAT II satellites on pre-emptive basis. The licensee is to pay a reservation charge of 25% of the annual space segment charge w.e.f. the date of signing the license agreement.

11.The present charges for transponder in Extended C band for High Power (34 dBw) in rupees lakh per annum is 275, 158.12, 90.92 and 52.28 respectively for Full, Half, One-fourth and One-eighth transponder respectively. The same charges have been made applicable to equivalent Ku Band transponders on INSAT 3B as well.

12.The following Section presents the salient features of the consultative process adopted by the TRAI in finalising these recommendations.

CONSULTATION PROCESS

13.In the process of formulating its recommendations, the TRAI has adopted a consultative approach. Meetings have been conducted with the industry association and inputs have been invited and received from the licensor. A field visit was also undertaken by TRAI personnel to see the working of VSAT operations. A Consultation Paper (No. 2000/4) intended to present the relevant issues in perspective was released on August 17, 2000. Another important input is an analysis conducted of the existing VSAT projects. While the details of this analysis are available in the Consultation Paper, the analysis indicates that most of the VSPs are in a situation of

- overall growth, where
- cash flowsmay turn positive in 3-6 years of operation;
- demand is expected to grow, and
- future revenues are driven by bandwidth use / availability

14.The concerns of the VSPs have also been brought out in the Consultation Paper. It has been represented by the industry that in their assessment, the business case of VSPs is adversely affected by the level of license fee regime obtaining at present. It has also been represented that limitations on transmission speed, interconnection with other networks, and access to foreign satellites are important aspects that would require early resolution.

15.The Consultation Paper presented seventeen major issues for consultation. Comments on these were received from twenty-five respondents including DoT, DoS, VSPA, a number of VSPs, international corporations, end users, intending satellite service providers, and consumer organisations and individuals.

16. Open House Discussions on the issues were conducted at Mumbai, Chennai, Calcutta and Delhi in September 2000. These discussions too yielded important inputs that have been considered by the TRAI in finalising these recommendations