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NCSTC & Vigyan Prasar are the nodal agencies of Government of India for Science & Technology popularization in the country. Amateur Radio (Ham Radio) is one of the important thrust areas of NCSTC & Vigyan Prasar with a club station VU2NCT (located at Technology Bhawan) and a VHF Repeater Station VU2DLR located at Vigyan Prasar.

It is quite pertinent that DOT has earlier considered a review of the Indian Wireless Telegraph (Amateur Service) Rules 1978. NCSTC & Vigyan Prasar was in receipt of WPC's letter (no. L-14011/601/2001 dtd. 26.03.2001) in this regard. The suggestions made by Amateur Radio Soceity of India (ARSI) were considered important in removing the bottlenecks of amateur radio promotion in our country.

Vigyan Prasar (Department of Science & Technology) has also collected opinions from ham radio operators across the country through an Internet online form and these suggestions were forwarded to Wireless Planning and Coordination Wing (WPC) vide letter no. VP/901/Ham/CO/98. dtd. April 30, 2001. More than a hundred ham radio operators from across the country responded to this poll. It is believed that acceptance of these suggestions during the next amendment of the Indian Wireless Telegraph (Amateur Service) Rules 1978 {last amended by Indian Wireless Telegraphs (Amateur Service) Amendment Rules, 1984 – G.S.R. No. 1225/84} would help in removing many of the hindrances of amateur radio promotion in the country.

Now, the initiative taken by Disaster Management Division in the Ministry of Home Affairs in coordinating and promoting amateur radio as a tool for effective disaster communication would definitely open a new vista. It is expected that the present impediments of amateur radio promotion can be removed by implementing a new amateur radio policy with active cooperation of different Ministries (e.g. DOT, Ministry of Home Affairs and Revenue Ministries) and amateur radio promoting bodies.

SUGGESTIONS FOR THE REMOVAL OF THE IMPEDIMENTS OF AMATEUR RADIO PROMOTION IN INDIA

1. A FASTER LICENCING PROCESS

The licencing process can be made faster by decentralizing the licencing process. At present, it takes at least 1 to 2 years to get a ham radio licence (Called the Amateur Wireless Telegraph Station Licence). Students studying in many of the premier technical institutes of the country also complain of NOT getting their licences even after many years of passing the licencing examination.

The Wireless Monitoring Stations located at different parts of the country are empowered to conduct the licencing examination and declare the result, but they are not empowered to issue the licence. Licencing process can be quickened if the Wireless Monitoring Stations (where the licencing examination is conducted) are empowered to issue the licence just after the declaration

of the examination result. The licence should be provisional, subject to cancellation if an adverse report is received from the security agencies. This type of decentralization and prompt issue of licence will generate a positive attitude amongst our younger generation towards this scientific hobby.

At present the amateur radio licence is issued from WPC, New Delhi, only after clearance from the Ministry of Home Affairs, which delays the issuance of the ham radio licence. This is a big hindrance to the amateur radio enthusiasts located at distant parts of the country, as it is not always possible for them to personally enquire the status of their licence issuance from such far away places.

There are about 22 wireless monitoring stations across the country with 4 Regional Monitoring Headquarters located at Delhi, Mumbai, Kolkata and Chennai. Empowering these stations to issue the ham radio licence can fasten the licencing process. In this case, a police clearance certificate issued by the S.I. or O.C. of the Police Station where the applicant for the Ham licence stays can be adequate before issuing the licence. This procedure will be in line with the issue of passports, where, clearance from the local police is obtained by the Regional Passport Officers.

At present the security clearance is being obtained through the 'Intelligence Bureau', who may not deal with 'Regional Monitoring Headquarters' located at Delhi, Mumbai, Kolkata and Chennai. Considering that cellular phones have a much larger accessibility (anywhere in the world) and do not need any security clearance, it is desirable that incase of 'Amateur Licence' the Security Clearance is obtained by the Regional Engineer-in-Charge or the Officer-in-Charge/Engineer (Inspection) of the concerned Wireless Monitoring Station from the local police, instead of IB. Such information - the list of qualified candidates as well as the security clearance papers - be forwarded to WPC for issue of licence. This will save a lot of delay in the issue of licences.

In case, if the Wireless Monitoring Stations are empowered to issue the licence, issuing of call-sign should also not be a problem if different prefixes are allotted to different states or different prefixes are handled by different monitoring stations. At present only VU2 and VU3 prefixes are released to the hams in India, which are centrally allotted from WPC, New Delhi. There are lots of unused prefixes (International Telecommunication Union allotted call-sign blocks of ATA-AWZ, 8TA-8YZ and VTA-VWZ) that could be allocated to Indian Amateurs. It may be mentioned only a very few call-sign blocks are in use at present, which are allotted to the aircrafts (which have 'five letter call-signs' starting with the prefix VT), Commercial Ships (which have 4 character call-signs with the prefix VW) and Naval Sailing Ships (which also have 4 character call-signs with the prefix VT)

Suggestion is to allocate different prefixes to different States. For Example, VU6 can be Tamilnadu, VV6 can be Kerala. Indian Islands should get different 'Prefixes' depending on the region.. Eg. Vypin Island - 8T6. This will help the process of decentralizing the licencing as one or a group of prefixes will be handled by individual monitoring stations (or by the 4 Regional Monitoring Headquarters located at Delhi, Mumbai, Kolkata and Chennai). At present ham radio operation from Andaman and Nicobar Islands is not allowed except with a special permission from the WPC. The prefix in use for Andaman & Nicobar Islands is VU4.

If the monitoring stations have access to a centralized database, there should not be any problem of conflicts in call-sign allocation to the licencees. Vigyan Prasar already has an online database, which is available at http://www.serc-dst.org/HamSearch.htm, which has many options including searching (CITY, STATE, PIN Code, CLUB and NAME wise), online registration and online update facility.

Allocation of different call-sign prefixes would also help the DXing enthusiasts, ARSI and other ham radio clubs to organize different radio sports and contests easily. Hams from other countries would be more attracted to contact these diversified prefixes and India would be able to draw an inernational attention in the field of ham radio.

It may be mentioned that at present there are several 'FREE LICENCE' second line of two-way radio communication services allotted by US government to its citizens, e.g. FRS (Family Radio Service-NO LICENCE and NO FEE), GMRS (Global Mobile Radio Service-With a licence at a nominal fee but WITHOUT ANY LICENCING EXAMINATION. 462.675 MHz is the National Emergency Calling Frequency) and MURS (Multi User Radio Service-NO LICENCE & NO FEE).

In India, these services are not yet introduced and hence ham radio is the only option left to the two-way radio communication enthusiasts. Ham Radio is also the only second line of communication in our country.

2. MOBILE/PORTABLE HF, VHF & UHF OPERATION

Operation from places other than the location to which the license is issued should be automatic/paperless. For example, persons holding an Indian Amateur Radio License can operate anywhere from USA without informing anyone or getting any permission just by adding the required prefix-like w8/vu2xyz. The present Indian Wireless Telegraph Service Rules don't allow this. An Indian citizen has to seek a permission to carry and operate her/his ham equipment even within India. It is problematic, especially for hams, who have to very often shift their wireless equipment for portable operation (for demonstration and awareness programmes, expeditions, dx-peditions, car rallies etc.) and who may have to go to remote places where there is NO conventional modes of communication available. One of the very basic purposes of ham radio is to use it as a utility where there is NO conventional mode of communication available.

Radio amateurs, who have to qualify in an examination and who are cleared individually by security agencies still have to apply for permission to operate mobile or to operate from a portable location.

It may be mentioned that Commercial Radio licencees are allowed to operate mobile stations, without individual security clearances, and without any restriction in operational areas. In such cases, the Licensee company and the Director/Owner only are cleared by security agencies, and yet ANY employee of the company-driver included- is entitled to operate mobile stations.

Most of the radio amateurs use hand-held sets (walkie-talkies) either on LOS (Line-Of-Sight) basis or through repeater. It is illogical to insist that these be used as base stations. The necessity of a "mobile permission" should be eliminated in case of amateur radio operation. This will also facilitate implementation of newer technologies like APRS (Automatic Position Reporting System) through GPS receivers interfaced to ham walkie-talkies, which would be of immense utility to the ham stations networked for emergency communication and also for search & rescue

operations. It may be mentioned that no permission is required to carry wireless mobile telephones.

The ham radio operators should be allowed to operate HF, VHF and UHF mobile from anywhere within the country except from locations, which have been specifically declared by the Central Govt. from time to time, as "prohibited".

3. REMOVING THE RESTRICTIONS IN ISSUING OF LICENCE TO CERTAIN STATES/UNION TERRITORIES

Considering the fact that only a genuine radio enthusiast with a technical bend applies for such type of a licence, there should not be any restriction in the issue of Amateur Station licences to the people living in some bordering states (e.g. India's North Eastern States like Assam, Manipur, Nagaland, Tripura, Arunachal Pradesh, Mizoram, Punjab, Jammu & Kashmir and Andaman Nicobar Island). At present special permission is required to be taken to operate from Andaman & Nicobar Islands. A law-abiding citizen with a technical bend should not be allowed to suffer just because of her/his proximity to hostile neighboring countries. Instead, Amateur Radio can strengthen the feeling of national brotherhood and can act as a catalytic force in the national integration effort. Many of these states and union territories are prone to natural calamities and are also of strategic importance from national security point of view. It may be mentioned that USA has a Military Affiliated Amateur Radio Service called Military Affiliated Radio Service (MARS). MARS (USA) is a Department of Defense (USA) sponsored program, established as a separately managed and operated program by the Army, Navy, and Air Force. The program consists of licensed amateur radio operators who are interested in military communications on a local, national, and international basis as an adjunct to normal communications.

In India also Ham radio operators can play an important role in matters of strategic importance in the event of national emergencies.

4. DUTY FREE IMPORT OF AMATEUR RADIO ITEMS (HS Code 852520 04)

At present there is no indigenous manufacturer of amateur radio items (HS Code 852520 04) in India. A few individual hams and clubs however supply low power kits on a non-profit basis and on the basis of individual demands from newly licensed hams. These may not be very reliable in the event of a disaster. More rugged amateur equipments are necessary for disaster communication under harsh atmospheric conditions. The present trend of the branded companies is to supply the hams with Military Standard (MIL-standard) amateur radio equipment. To make the amateur radio equipment affordable to the ham radio operators, the following changes in the Import Policy may be brought:

i. The Amateur Radio Equipments (which comes under the Harmonized System Code –HS Code 852520 04) **should be allowed to import DUTY FREE under OGL** (Open General Licence). This was the policy followed when Late Rajiv Gandhi (who himself was a ham radio operator with the call-sign VU2RG) was the Prime Minister of India.

ii. The equipments should be allowed to import in the form of baggage by any license holder.

iii. Countervailing Duty (CVD) on Amateur Radio Equipment should be totally eliminated. CVD is in lieu Excise Duty; As there are no indigenous commercial manufacturers of amateur radio equipment, there is no logic of imposing this duty.

iv. The current import policy is considered as flawed by many, in that the elapsed time between applying for a duty concession import certificate and the receipt of the Import Certificate (from WPC) is indeterminate. More often due to the non-receipt of the import certificate in time of the travel of the ham radio operator leads to an exorbitant duty levy by the customs authorities. It would be good if the current policy were modified to allow a Ham Radio Operators to get a duty free concession on production of her/his valid Amateur Operator's license along with the radio equipment at the entry port.

v. The present limitation of Rs. 75,000/- for a duty concession should be eliminated to enable the individual hams and clubs/societies to import modern ham radio gizmos suitable for efficient disaster communication. For example, the cost of a Pactor-II Radio modem, which is used for wireless emailing costs around Rs.50,000/-. The cost of importing a HF ham transceiver along with such a radio modem exceeds the present specified limit of Rs. 75,000/-.

5. SPECTRUM NEED

As regards to frequency spectrum availability, the Indian amateurs have miles to go. The following additional bands should be permanently released to the Indian hams.

(1) 3700-3890 kHz
(2) 7100-7300 kHz or two spectrums, i.e. 6900-7000 kHz & 7100-7200 kHz
(3) 10100-10150 kHz
(4) 50.00-50.20 MHz

6. REMOVE THE MANDATORY REQUIREMENT OF 'MORSE CODE' FROM THE HAM RADIO LICENCING EXAM SYLLABUS

The International Telecommunication Union (ITU) during the World Radio Conference 2003 has amended the Amateur Service Rules, as a result of which, the knowledge of Morse Code is no longer mandatory for operations in the HF (High Frequency) bands. The decision to remove this requirement have been left to the administrations concerned. Already a number of countries like U.K., Ireland, 7 countries in Europe, Singapore and a few in Africa and Oceania (as in January 2004) have already removed this requirement from their ham radio syllabus. Thus there is a need to amend the rules in India also so that more and more people come forward for the licence.

7. INCREASE THE LEGAL TRANSMITTING POWER LIMIT

The transmission power limit for Grade-II licencee should be increased to 150 watts; for Grade-I licencee to 400 watts and for Advanced Grade licencee to 1000 watts, in already allotted HF sub-bands.

8. LEGALIZE THE DIGITAL MODES OF COMMUNICATION

At present, there is no provision for various digital modes of communication in the Indian Rules & Regulation. Additional emissions need to be incorporated in the list of emissions of the Indian Rules and Regulations to legalize AMTOR, PACTOR, RTTY, PACKET, PSK31 and other digital modes employing newer technologies. Internet HF and VHF gateways through Echolink, IRLP, WIRES etc. should also be legalized as they would be important in the event of a disaster.

9. REDUCING THE AGE REQUIREMENT

The age requirement for appearing in the Amateur Station Operator's Licencing (ASOL) Examination should be reduced. The minimum age requirement for a Grade II licence may be reduced to 10 years and it may be reduced to 12 years for aGrade-I and other higher grades of licences.

There needs to be a complete change in the way these rules look at the radio amateur (ham radio operator). The impression that one would get upon reading them would be that the rules see the ham radio operators as a THREAT whereas, in actual practice, ham radio operators are a GREAT ASSET to our Country. This has been proven time and again on several occasions. By seeking a license, the amateur radio enthusiasts actually identify themselves uniquely by a call-sign and subject their credentials through thorough verification by the authorities.