**Frequently Asked Questions**

**Q1.** **What is the role of Wireless Planning and Coordination (WPC) Wing?**

**A1.** The Wireless Planning & Coordination (WPC) Wing of the Department of telecommunications (DoT) is the national radio regulatory authority of the Government of India and is responsible for planning, engineering, managing and monitoring the limited natural resources of Radio Frequency (RF) spectrum and satellite orbits, including geo-stationary (GSO) and non-GSO orbits.

**Q2.** **What is the role of Wireless Monitoring Organisation (WMO)?**

**A2.** Wireless Monitoring Organisation (WMO) is a sub-ordinate organisation of DoT under the administrative control of Wireless Adviser, WPC Wing. It deals with radio monitoring and enforcement works of spectrum management. It acts as eyes and ears of WPC Wing. It carries out RF spectrum monitoring along with physical inspection of wireless operating users to ensure interference free environment to the authorised radio users.

**Q3.** **What is Indian Radio Regulatory Service?**

**A3.** The Indian Radio Regulatory Service (IRRS) is an Organized Group ‘A’ Technical Service in the Department of Telecom. The IRRS officers are posted in WPC Wing and WMO under the Department of Telecommunication. The Service was notified as an Organized Group ‘A’ Technical service in the year 2013 and the first cadre review took place in that year itself. Service Rules were framed in the year 2015.

**Q4.** **How are officers inducted in to IRRS Cadre?**

**A4.** The appointment to the IRRS cadre is made through Combined Engineering Services Examination (ESE) organized by Union Public Service Commission (UPSC) of India every year according to the vacancies notified by Department of Telecommunications.

**Q5.** **What are the responsibilities of IRRS encadred officers?**

**A5.** Brief of the roles/responsibilities of the IRRS officers:

* To formulate policies related to radio spectrum management;
* To assign radio spectrum to different users under the national legislative framework including IMT spectrum to different TSPs via different methods including Spectrum Auction;
* To regulate the use of wireless equipments both in licensed and license-exempted frequency bands;
* To periodically publish National frequency allocation plan (NFAP) in line with the latest version of the Radio regulations (RR);
* To monitor the radio spectrum for its authorised use and to resolve cases of radio interference to the authorised users;
* To enforce the legislative and regulatory provisions i.r.t. radio spectrum use;
* To coordinate with International Telecommunication Union-Radiocommunication Sector (ITU-R) and Asia Pacific Telecommunity (APT) i.r.t. national spectrum management

**Q6.** **What is International Telecommunication Union?**

​​​​​​​​​​​​​​​​​​​​​​​​​**A6.** The International Telecommunication Union (ITU) is the United Nations specialized agency for information and communication technologies – ICTs. Founded in 1865 to facilitate international connectivity in communications networks, ITU allocate global radio spectrum and satellite orbits, develop the technical standards that ensure networks and technologies seamlessly interconnect, and strive to improve access to ICTs to underserved communities worldwide.  Every time you make a phone call via the mobile, access the Internet or send an email, you are benefitting from the work of ITU.

**Q7.** **What is the role of WPC Wing/ WMO in ITU-R operations?**

**A7.** WPC Wing / WMO is also the nodal organization representing Government of India in the international forums such as International Telecom Union -Radiocommunication (ITU-R) under United Nations (UN) & Asia Pacific Tele-Community (APT)– the regional counterpart of ITU.

The usage and licensing of radio spectrum-based services in India closely follows international laws of Radio Regulations (RR) developed under the aegis of ITU-R. It is the ITU-R, which in coordination with such national organizations, responsible for developing technology & radio spectrum standards and formulating regulations for, among others, immensely popular telecom services known as 2G, 3G, 4G & 5G.

**Q8.** **What are the legislative provisions under which spectrum licenses are granted by WPC Wing?**

**A8.** To establish, maintain and work any wireless telegraph (transmitter/ receiver/ transceiver), a license is granted by WPC Wing under Section 4 of the Indian Telegraph Act, 1885 (ITA, 1885).

 To possess any wireless telegraph (transmitter/ receiver/ transceiver) without establishment, maintenance and working of it, a license is granted by WPC Wing/ WMO under Section 3 of the Indian Wireless Telegraphy Act, 1933 (IWTA, 1933). Such licenses are currently issued by the Wireless Monitoring Stations of WMO to the dealers of wireless equipment viz. Dealers Possession License.

**Q 9. What are the broad categories of licenses granted by WPC Wing?**

**A9.** WPC Wing and its five Regional Licensing Offices (RLO), grant multiple categories of spectrum licenses depending on the type of use. It broadly includes, Land-mobile license (walkie-talkie etc.), spectrum license for Captive Mobile Radio Trunking Service (CMRTS), RADAR/ Beacon/ AIS etc. license (radiolocation or radionavigation service), Broadcasting (FM, Community Radio, Public terrestrial broadcasting) license, Satellite-based telecommunication license (Commercial VSAT, Captive VSAT), satellite-broadcasting license (DTH, HITS, Teleport etc.), Aeronautical Mobile Station license (Aircraft station), Maritime Mobile Station Licence (Ship station), Amateur license (HAM Radio) etc.

**Q10. What is National Frequency Allocation Plan?**

**A10.** The National Frequency Allocation Plan of India provides a broad regulatory framework, identifying which frequency bands are available for cellular mobile service, Wi-fi, sound and television broadcasting, radio navigation for aircrafts and ships, defence and security communications, disaster relief and emergency communications, satellite communications and satellite-broadcasting, and amateur service, to name just a few. The central theme of NFAP-18 is the allocation of radio-frequency spectrum to different radiocommunication services as detailed in the column named “India” in the Table of Frequency Allocations in Section B of Chapter 3. NFAP-18 covers the frequency range up to 3000 GHz.

**Q12.** **What is Radio interference and how does it impact wireless services?**

**A12.** The effect of unwanted energy due to one or a combination of emissions, radiations, or inductions upon reception in a radiocommunication system, manifested by any performance degradation, misinterpretation, or loss of information which could be extracted in the absence of such unwanted energy.

A Receiver may have interference from many sources: intra-band (same or other services); adjacent bands/services; permanent and intermittent; fixed or mobile source; unintentional and intentional; current and futures, etc.

**Q13.** **What is license-exempted frequency bands?**

**A13.** In exercise of the powers conferred by Section 4 and 7 of the Indian Telegraph Act, 1885 and Sections 4 and 10 of the Indian Wireless Telegraphy Act, 1933, Central Government frames rules to allow use of certain frequency bands without any license, subject to compliance of the equipment, with the technical conditions specified in such rules.

License Exempt bands are notified through rules published in the Official Gazette. A wide range of such gazette notifications have been released by the WPC Wing for de-licensing of different regions of the wireless spectrum for the wider public use.

**Q14.** **What is Equipment Type Approval?**

**A14.** Equipment Type Approval is a certificate which is issued by WPC Wing to a category of wireless equipment operating on any of the license exempt frequency bands (as notified by the government from time to time) subject to the fact that the equipment is fulfilling all the technical/ operational characteristics of wireless operation specified in the respective notifications.

**Q15. What is Import License?**

**A15.** Under Notification No. 71 of 1953, issued under Sea Customs Act, 1878, a license is required from Ministry of Communications to import any wireless transmitter/ transceiver/ receiver. WPC Wing grants Import license to the importer of such equipment which is honored by the Customs Authority. However, relaxation has been extended to certain equipments/ users.

**Q16.** **What is Dealer Possession License?**

**A16.** Dealer Possession License (DPL) is a license issued to registered dealers of complete wireless sets as per the provisions of the Indian Wireless Telegraphy (Possession) Rules, 1965 framed under IWTA, 1933. Issuance and renewal of DPL is performed by Wireless Monitoring Stations or Regional Headquarters of WMO.

**Q17.** What is the role of Inspection of Wireless users in Spectrum Management?

**A17.** Technical inspection of wireless stations is done to ensure that the user of wireless equipment adhere to the technical conditions specified in the license/ approval.

**Q18.** **What are Radio Regulations?**

**A18.** Radio Regulations (RRs) refer to the set of international guidelines on Radio Communication procedures, worked out by all global administrations under the aegis of the International Telecommunication Union. These procedures are designed with the aim of rational, efficient and harmonized utilization of the Radio Communication resources, as they are not bound by geographical boundaries.

Radio Regulations hold the status of a treaty document and are binding on all member administrations of ITU, including India. It is also important to mention that non-observance of the Radio regulations doesn’t lead to international penalization because every country has got sovereign rights for managing its spectral resources. However, following the globally recognized guidelines enshrined in the RR is thoroughly recommended for every member administration.

**Q19.** **What are Regional Licensing Offices?**

**A19.** Regional Licensing Offices are establishments operating under Wireless Planning and Coordination Wing of DoT, which issue certain categories of Wireless Licenses. RLOs were established to decentralize the Spectrum licensing task of WPC Wing and thereby ensuring greater flexibility to the Wireless users/applicants for availing spectrum licensing services.

Currently, there are 5 Regional Licensing Offices in the country, operating in New Delhi, Mumbai, Kolkata, Chennai and Guwahati.

**Q20.** **What services are provided by RLOs?**

**A32.** The services provides by Regional Licensing Offices of WPC Wing are as follows-

1. GMDSS GOC Certificate and License (Fresh/Renewal)
2. RTR (A) certificate and License
3. Experimental License
4. Demonstration License
5. Manufacturing & Testing License
6. Maritime Mobile Station License
7. Aeronautical Mobile Station License
8. Import License, other than TSPs
9. Equipment Type Approval other than self-declaration-based ETA
10. Ultra Short Range (USR) License

**Q21. What are Wireless Monitoring Stations?**

**A21.** Wireless Monitoring Station is the basic field unit of Wireless Monitoring Organization. Each WMS monitors RF Spectrum in their respective jurisdictions and act to ensure compliance with the regulatory provisions governing radio communications as per global guidelines issued by the International Telecommunication Union (ITU) and national regulations of WPC Wing/ WMO, which is the nodal agency for Spectrum Management in India.

WMS is responsible for checking the technical parameters and licensing conditions of all wireless licensing assignments issued by WPC Wing. A list of technical activities carried out by WMS for the purpose of Spectrum Monitoring are-

1. Aural and visual observations
2. Identification of emissions
3. Frequency measurements
4. Field Strength or Power Flux Density (pfd) measurements
5. Recording Spectrum Occupancy
6. Radio Direction finding
7. Elimination of interference
8. Identification of unauthorized Station

There are 27 Wireless Monitoring Stations strategically located throughout India, including 5 International Wireless Monitoring Stations.

**Q22.** **What services are provided by Wireless Monitoring Stations?**

**A22.**

(a) Wireless Monitoring Stations are responsible for monitoring the entire radio frequency spectrum in its respective jurisdiction areas, with the aim of providing field data about the utilization of the spectrum and its associated technical parameters to WPC Wing. Such technical data and logistics support provided by WMS helps the WPC Wing in enforcement of the National and International Regulatory and statutory provisions for efficient management of the Radio Frequency Spectrum and Geo-Stationary Satellite Orbit.

(b) WMS is responsible for checking the technical parameters and licensing conditions of all wireless licensing assignments issued by WPC Wing. If any user is found to be violating licensing conditions, infringement letters are issued mentioning the type of violation and necessary remedial action. User compliance is ensured by using the provisions of Indian Telegraph Act, 1885 and Indian Wireless Telegraphy Act, 1933. Technical Assistance is also provided to the licensed users on request basis.

(c) To protect authorized/licensed wireless users from harmful/unauthorized/clandestine RF emissions which causes interference in their operations and also provide interference resolution if occurs any.

(d) The Indian Wireless Telegraphy (Possession) Rules, 1965 (G.S.R. 1318 dated 28.08.1965) contains the rules related to Possession of Wireless Telegraphy apparatus. The Dealer Possession License (DPL) and Non-Dealer Possession License (NDPL), which are governed by these Rules, are issued by the WMSs.

 (d) As per WPC Wing O.M. No. R-11017/04/2017-PP dated 07.12.2018, Destruction certificate of wireless equipments against cancellation/surrender of WOL/DL/AIP are issued by the WMSs in the concerned jurisdiction.

(e) Amateur Station Operator’s Certificate Exam, popularly known as HAM Exam, is conducted by WMS.