

# Wireless Monitoring Organization (WMO)

Wireless Monitoring Organization (WMO) is the nodal agency for providing interference free spectrum to millions of end users in the country. Wireless monitoring is an integral part of the spectrum management. WMO, a field unit of the Wireless Planning and coordination (WPC) Wing, carries out spectrum monitoring through a network of 1(one) International Satellite Monitoring Earth Station (ISMES), 5 International Monitoring Stations (IMSS), and 22 Wireless Monitoring Stations (WMSs), strategically located all over India. WMO is also equipped with 5 Radio Noise Survey Units, which undertake detailed and complicated measurements to aid in the spectrum management activity. As wireless monitoring for spectrum management is a specialized activity, Officers of Indian Radio Regulatory Services (IRRS) are posted in WMO for ensuring interference free spectrum for public telecom services and wireless users. WMO also runs its own Training and Development Centre (T&D Centre) at Ghitorni, New Delhi for spectrum monitoring & management related courses. In addition, WMO, with its 10 Inspection Units, carries out physical inspection of wireless installations.

## Major Functions of WMO

- Resolution of the harmful interference;
- Monitoring for identification of frequency sub-bands for introduction of new services and/or for additional allocation to existing services;
- Monitoring for spectrum recovery — unused/ under-used frequency authorizations;
- Monitoring for ensuring adherence to licensing conditions;
- Monitoring / measurements for sharing studies;
- Assistance to domestic wireless users;
- Assistance to foreign administrations;
- Conducts exam ASOC Examination for Amateur licenses (HAM)
- Participation in special monitoring campaigns of the ITU;

- ❑ Issue of Dealer Possession Licence (DPL) for wireless apparatus under Indian Wireless Telegraphy Act, 1933;
- ❑ Measurements on radio emissions for the possible introduction of new radio communication networks, and for studying the EMC compatibility;
- ❑ Inspection of licensed installations; and
- ❑ Monitoring of space emissions to protect authorized satellite transmissions.

## Organization Setup

- ❑ **22 Wireless Monitoring Stations (WMS), 5 International Monitoring stations (IMS) and 1 International Satellite Monitoring Earth Station (ISMES) at Jalna, strategically located all over the country;**
- ❑ **WMS and IMS stations** carry out radio frequency signals monitoring in the entire MF, HF, VHF, UHF & Microwave Radio Frequency spectrum ranges;
- ❑ **Training and Development Center, at Delhi**, conducts training courses for fresh **IRRS Engineers/recruits** inducted every year through Group “A” UPSC Engineering Services Examinations and other radio monitoring personals viz. **Junior Wireless Officers (JWOs)** inducted through SSC Examination. It also conducts **specialized programs** to prepare examiners for the **RTR (Aero) examinations and the GMDSS GOC examinations**, conducted by the Ministry from time to time as per the schedule.
- ❑ **Radio Noise Survey Units**, located at 4 metros and Hyderabad, are entrusted with carrying out measurements on radio emissions.
- ❑ **10 Inspection units**, located in different parts of the country, carry out on-site inspection of wireless installations;
- ❑ **RHQs in 4 metros** provide logistic and strategic support to WMSs/ IMSs within their jurisdiction, besides carrying out supervisory function.
- ❑ As regards **Satellite RF signals Monitoring**, International Satellite Monitoring Earth Station (ISMES) at Jalna has facilities to monitor radio emissions originating from satellites in GSO arc of 20 deg. E to 140 deg. E to protect Indian Space Services from interferences caused by the emissions from other satellites of any foreign country or vice versa;

# Satellite Spectrum Monitoring by WMO



Satellite spectrum is a spectrum that became available due to the placement of satellites into orbit. This spectrum is a limited resource for every country. In order to ensure optimum utilization of satellite spectrum, each country undertakes regular monitoring exercises for Satellite spectrum. This spectrum is used by service providers to implement satellite-based broadcasting, telecommunication and meteorological services. To ensure quality of services, satellite spectrum must be used by service providers as per terms and conditions approved by the Government. Regulatory measures must be enforced. This practice of regulating the satellite spectrum within the limits of permissions or licenses is accomplished by WMO mainly through its International Satellite Monitoring Earth Station (ISMES) at Jalna, Maharashtra; which continuously monitors the satellite occupancy in Geostationary satellite orbit arc over India ranging from 20 degree east to 140-degree East in S-band, Lower C band, C Band, Extended C band and Ku Band. ISMES Jalna also has capability to analyse the signal in Real Time Mode which is useful in identifying the interfering signal. **Recently ISMES Jalna has been got notified and published in List VIII (List of International Monitoring Stations) of International Telecommunication Union (ITU) Geneva during the month of November-2018.** Through this notification the ISMES Jalna has been recognized in International forum.



14M Dish installed by ISRO during 1992-93 with Cassegrain Feed



2.4M Dish with Prime Focus Feed named Small Wonder installed by WMO Jalna in 2013 and finds place in Limca Book of records in 2017



1.2M Dish with Offset Feed

## **Contact details of Sr. officers of WMO**

Sr No	Name of Officer	Designation	Contact No.
1	Sh R K Saxena	Director/HOD	011 – 29054618
2	Sh A K Soni	Sr Dy Director (PI)	011 -29051005
3	Sh Ajay Singhal	Sr Dy Director (MON)	01129054802
4	VACANT	Sr Dy Director (SAT & ADMIN)	011-29057510
5	Sh Amit Gulati	Dy Director (PI)	011 -26054306
6	Sh Vishal Singh Yadav	Dy Director (SAT)	011 - 29955761
7	Sh D K Rai	EIC(MON)	011 -29955382
8	Sh. Sumit Nandan	SAO	011-29958942

## List of WMO field units in India

S.No	Name of the Office	Head / Address of the Office	Contact Number
1.	Wireless Monitoring Headquarters	Director, Head of Department E-Wing, IIIrd Floor, Pushpa Bhavan, Madangir Road, New Delhi-110062	PH-011-29054618
2.	Wireless Monitoring Training and Development Centre (WMTDC).	Engineer-in-Charge (T&D),WMTDC, IMS Campus ,Ghitorni, New Delhi-110030.	011-26503286
3.	Northern Regional Headquarters, Delhi	Dy Director/ Engineer-in-Charge(NR), NRHQ, IMS Campus, Ghitorni, New Delhi -110030.	PH -011-26501344
4	Southern Regional Headquarters, Chennai	Dy Director / Engineer-in-Charge (SR) SRHQ, IMS Campus Kandanchavadi, Perungudi, Chennai-600096	PH -044-24960979,24960234
5.	Western Regional Headquarters, Mumbai	Dy Director / Engineer-in-Charge (WR) WRHQ, IMS Campus, Gorai Road, Borivali (West), Mumbai-400091.	PH -022-28673979, 28676244
6.	Eastern Regional Headquarters, Kolkata	Engineer-in-Charge (ER) ERHQ, IMS Campus, Vill-Gopalpur, P.O.-Sarkarpool,Distt.-24 Parganas (South) West Bengal -700143.	PH -033-24012960, 24019407
7.	International Satellite Monitoring Earth Station (ISMES), Jalna	Engineer-in-Charge, International Satellite Monitoring Earth Station, Indewadi Village, Ambad Road, Jalna,-431203 (Maharashtra)	PH -02482-225300,301 -

8.	<b>International Monitoring Station, New Delhi</b>	<b>Dy Director/ Engineer-in-Charge, IMS New Delhi, Ghitori, New Delhi-110030</b>	<b>PH -011-26502380</b>
9	<b>International Monitoring Station, Chennai</b>	<b>Dy Director/ Engineer -in-Charge, IMS, Chennai Campus, DOT, Kandanchavadi, Perungudi, Chennai-600096</b>	<b>PH -044-24960275, 24963083</b>
10	<b>International Monitoring Station, Mumbai</b>	<b>Dy Director/ Engineer -in-Charge, IMS Mumbai Campus, Gorai Road, Borivali (West), Mumbai-400092.</b>	<b>PH -022-28671626</b>
11	<b>International Monitoring Station, Kolkata</b>	<b>Dy Director/ Engineer -in-Charge, IMS Kolkata, Vill-Gopalpur, P.O – Sarkarpool Distt.-24 Parganas (South), Kolkata-700143.</b>	<b>PH -033-24019840</b>
12	<b>International Monitoring Station, Nagpur</b>	<b>Dy Director/ Engineer -in-Charge, IMS Nagpur, Chhindwara Road, PO: Koradi, Nagpur-441111.</b>	<b>PH -0712-2612114</b>
13.	<b>Wireless Monitoring Station Ahmedabad</b>	<b>Officer-in-Charge, Wireless Monitoring Station , Opposite Jagatpark Society, Ghatlodia, Ahmedabad-380061</b>	<b>PH -079-27603444</b>
14.	<b>Wireless Monitoring Station Ajmer</b>	<b>Dy Director/ Engineer -in-Charge, Wireless Monitoring Station, Kotra, Pushkar Road,Ajmer-305004.</b>	<b>PH -0145-2600641</b>
15	<b>Wireless Monitoring Station Bangalore</b>	<b>Dy Director/ Engineer -in-Charge Wireless Monitoring Station, Channammanakere Telephone Exchange, II floor, II Main, II cross, Vidyapeeta Road, Channammanakere Achukatte, Bangalore-560085.</b>	<b>PH -080-26690102</b>

16	Wireless Monitoring Station Bhopal	Dy Director/ Engineer-in-Charge, Wireless Monitoring Station campus, Gehunkhera, Kolar Road, Bhopal , M.P.-462042	PH -0755-2416880-81
17	Wireless Monitoring Station Dibrugarh	Officer-in-Charge, Wireless Monitoring Station, Girdhari Lal Sardarmal's Bldg., Mancotta Road, Dibrugarh-786001	PH -0373-2325238
18	Wireless Monitoring Station Goa	Officer-in-Charge, Wireless Monitoring Station Sylvia Buildind, Chogam Road, PO Alto Parvari, Goa-403521.	PH -0832-2417245
19	Wireless Monitoring Station Gorakhpur	Officer-in-Charge, Wireless Monitoring Station, Gurauli Buzurg, Chapia, P.O. Khajani Road, Gorakhpur-273001	PH -0551-2232019, 2323176
20	Wireless Monitoring Station Hyderabad	Dy Director/ Engineer -in-Charge, Wireless Monitoring Station,III Floor,Room No. 302, Telecom Engg. Centre, Cherlapally, Hyderabad- 500051.	PH -040-27261516-17
21	Wireless Monitoring Station Jalandhar	Dy Director/ Engineer -in-Charge, Wireless Monitoring Station Hosiyarpur NH, PO: Bhojowal Jalandhar-144101	PH -0181-2412010-40
22	Wireless Monitoring Station Jammu	Officer-in-Charge, Wireless Monitoring Station, House no. 6, Sector-9, Trikuta Nagar, Jammu-180020	0191-2477467
23	Wireless Monitoring Station Mangalore	Officer-in-Charge, Wireless Monitoring Station, 9-153/24, Near Vaidyanatha Temple, Shakti	PH -0824-2216692



		<b>Nagar Post Mangalore-575016</b>	
<b>24</b>	<b>Wireless Monitoring Station Ranchi</b>	<b>Officer-in-Charge, Wireless Monitoring Station Harmu Housing Colony, Ranchi-834002 (Jharkhand)</b>	<b>PH -0651-2243023</b>
<b>25</b>	<b>Wireless Monitoring Station Shillong</b>	<b>Dy Director/ Engineer -in-Charge, Wireless Monitoring Station P.O. Lapalang Rynjah Shillong-793006, Meghalaya</b>	<b>PH -0364-2535721, 2534152</b>
<b>26</b>	<b>Wireless Monitoring Station Siliguri</b>	<b>Officer-in-Charge, Wireless Monitoring Station, SJDA Residential Complex, Shanti Nagar, Dabgram, Siliguri , WB- 734004.</b>	<b>PH -0353-2598125</b>
<b>27</b>	<b>Wireless Monitoring Station Trivandrum</b>	<b>Officer-in-Charge, Wireless Monitoring Station Nettayam P.o. Thiruvanthapuram-695013</b>	<b>PH -0471-2373202, 2374533</b>
<b>28</b>	<b>Wireless Monitoring Station Vishakhapattanam</b>	<b>Officer-in-Charge, Wireless Monitoring Station, Deptt. Of Telecommunications, Lake View Layout, Near Vambay Colony, Madhurawada P.O, Visakhapatnam- 530048(AP)</b>	<b>PH -0891-2539365,</b>
<b>29</b>	<b>Wireless Monitoring Station Bhubaneswar</b>	<b>Officer-in-Charge, Wireless Monitoring Station Block No.1, Type-III/1, RTTC Colony Vani Vihar,Bhubaneswar-751007</b>	<b>09437072718 PH -0674-2589293-94 Mail ID-</b>
<b>30</b>	<b>Wireless Monitoring Station</b>	<b>Officer-in-Charge, Wireless Monitoring Station</b>	<b>08808424177 PH -0522-2422979</b>

	<b>Lucknow</b>	<b>Room no-208,RTTC ,LDA Coloney Lucknow-226012</b>	
<b>31</b>	<b>Wireless Monitoring Station  Patna</b>	<b>Officer-in-Charge,  Wireless Monitoring Station  QTR NO.4, Road No.9 Gardani bagh Patna-1</b>	<b>09631044059  06202855044</b>
<b>32</b>	<b>Wireless Monitoring Station  Dehradun</b>	<b>Officer-in-Charge,  Wireless Monitoring Station  108, Dharampur Haridwar Road Dehradun U.K.</b>	<b>0135-2670907</b>
<b>33</b>	<b>Wireless Monitoring Station  Vijayawada</b>	<b>Officer-in-Charge,  Wireless Monitoring Station  IIIrd floor, G-Block, P&amp; T Colony, M.G.Road, Vijayawada-520010.  Andhra Pradesh.</b>	<b>09493474377  0866-2476068</b>
<b>34</b>	<b>Wireless Monitoring Station  Raipur</b>	<b>Officer-in-Charge,  Wireless Monitoring StationRoom  H-5, Sale Tax Colony, Khamhardeh, Raipur-492004. Chattrishgarh</b>	<b>0771-2285393-94</b>