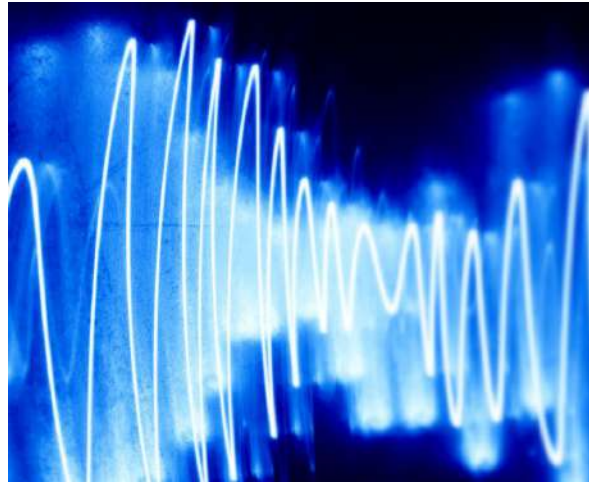
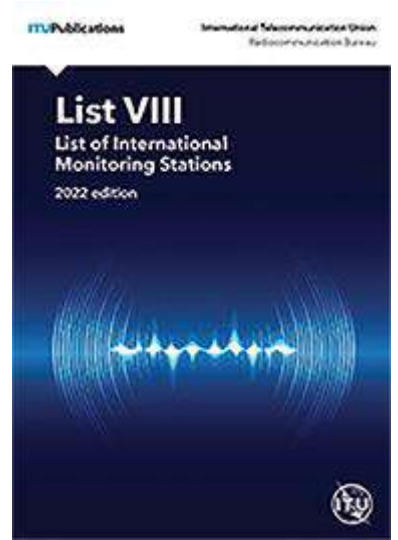


# ITU PRIDA Workshop on spectrum monitoring 25 April 2023, Zanzibar



## ITU BR Monitoring programs



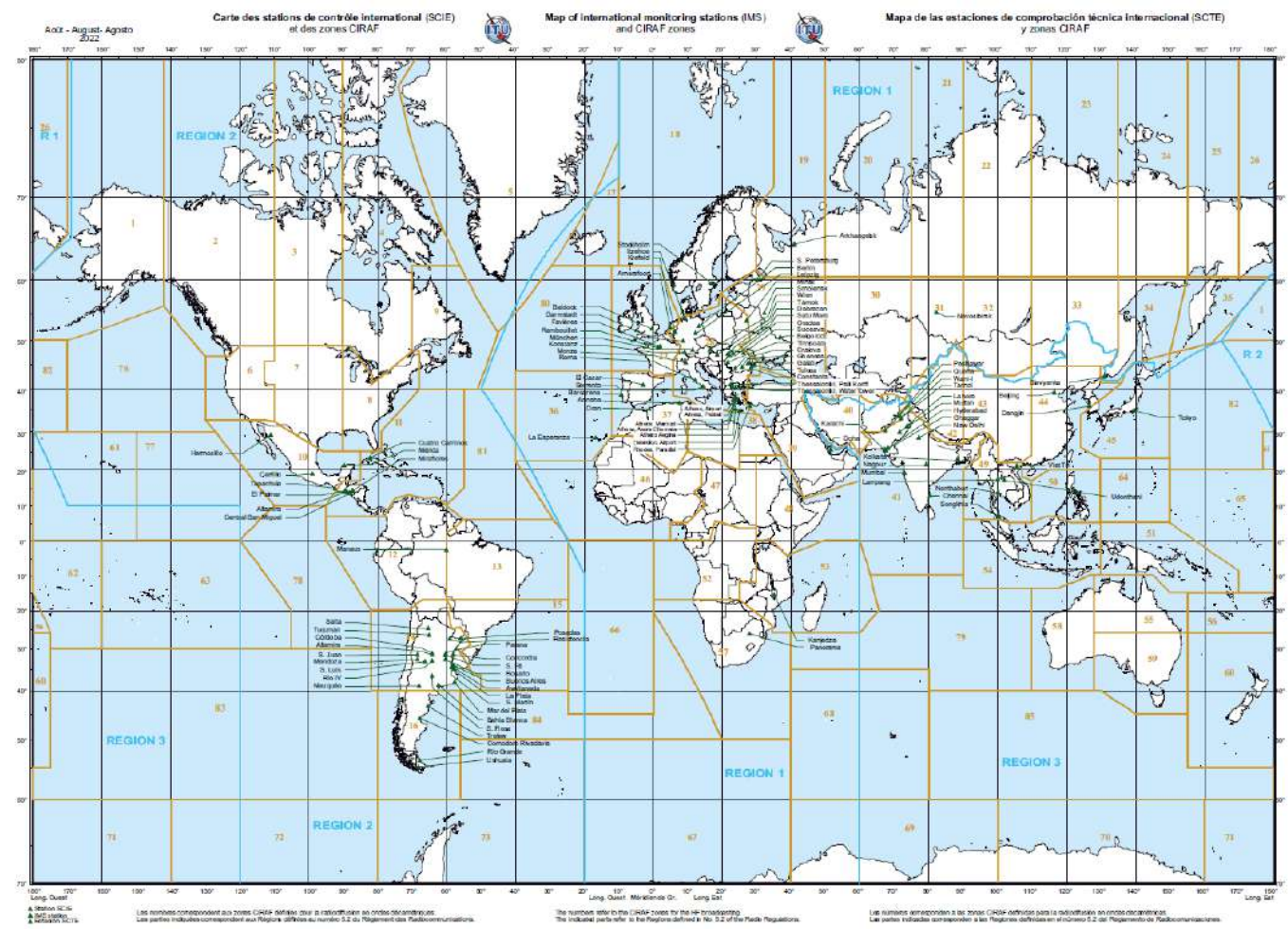
# Some history

Intensive use of HF bands,  
installation of monitoring stations

1930: First regional monitoring  
station in Brussels (EBU)

1947: International Monitoring  
System (IMS)

# International Monitoring System (IMS)



- Article 16 on International Monitoring System (IMS)
- Stations designated by administrations
- Operated by administrations, public or private, etc.

# International Monitoring System (IMS)

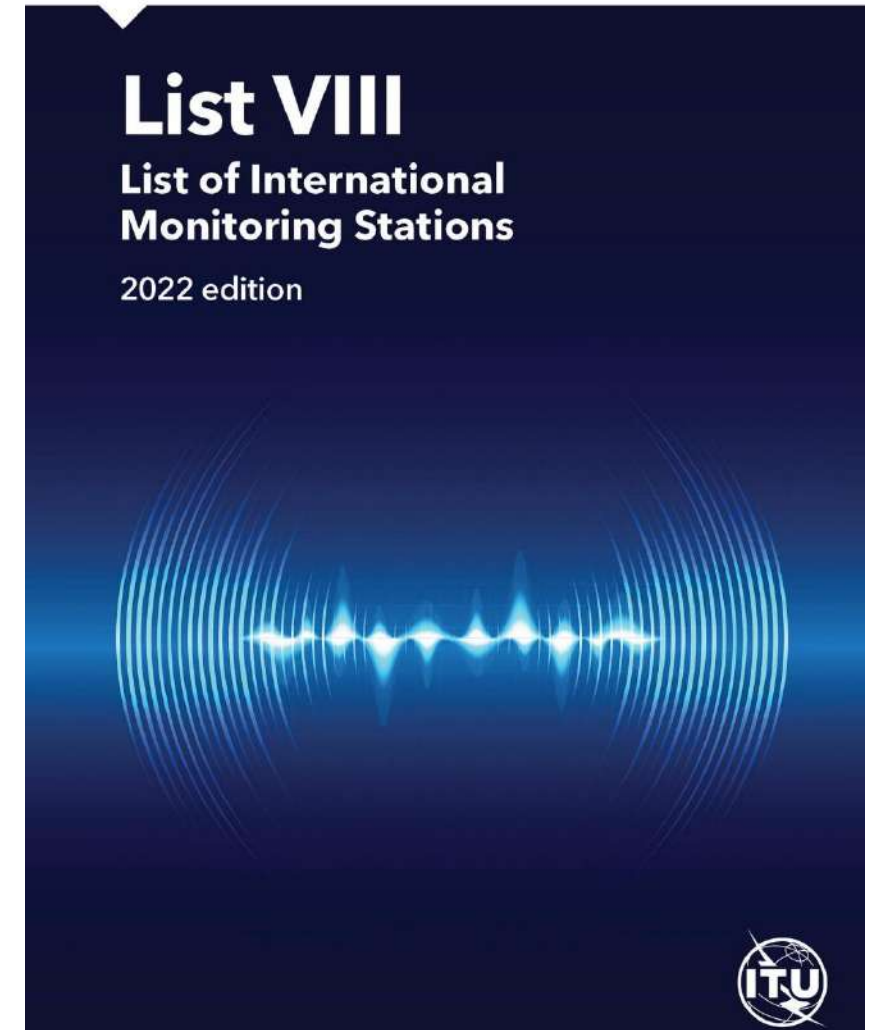
Coverage of the world by monitoring stations

## [Resolution ITU-R 23-3 \(2015\)](#)

- Participating administrations
- Non-participating administrations
- Cooperation and data exchange
- Training
- Publication of summaries of monitoring data

# List of International Monitoring Stations (List VIII)

- Monitoring station details, contact addresses, measurements, etc.
- Assistance in case of harmful interference
- Download free of charge at:  
<https://www.itu.int/pub/R-SP-LN/en>
- Free online search from:  
<https://www.itu.int/mmsapp/MonitoringStation/list>





## List of International Monitoring Stations (List VIII)

YOU ARE HERE: ITU > HOME > ITU-R > TERRESTRIAL SERVICES > MONITORING > LIST VIII

SHARE    

The List of International Monitoring Stations (List VIII) is a service publication prepared by the Radiocommunication Bureau (BR), in accordance with provision Nos. 16.1, 16.2 and 16.3 of the Radio Regulations (RR) and issued in application of provision No. 20.12 of the RR.



Notification | References

Administrations having determined whether the monitoring stations meet adequate technical standards, shall notify to the BR pertinent information on the centralizing office and on the stations they wish to have included in List VIII, clearly identifying those stations which may participate in the international monitoring system.

- [Notification Forms](#)
- [Data for review by Administrations](#)
- [Circular Letter CR/482 >](#)

### GENERAL INFORMATION

[Preface >](#)

List VIII is a necessary document for operating in the International Monitoring System (IMS).

It contains information, submitted by Administrations, about the different functions that each monitoring station is able to perform, both in the terrestrial and in the space radiocommunication services.

In cases of Harmful Interference (HI), where rapid action is required, information may be exchanged directly between stations of the IMS.

It is essential that those administrations already having terrestrial and/or space monitoring facilities, which participate in the IMS, notify the BR of the particulars of their monitoring stations for inclusion into this List.

### RETRIEVAL OF DATA

Information submitted by Administrations concerning the different functions that each monitoring station is able to perform in the terrestrial and/or the space radiocommunication services.



[Retrieval of data](#)

Amendments | Publication

All changes received by the Radiocommunication Bureau

[Amendments published in the ITU Operational Bulletin](#)

### Contact information

Voice: +41 22 730 5560  
Fax: +41 22 730 5785  
Email: [brmail@itu.int](mailto:brmail@itu.int)

For updating List VIII, please consult information at: <https://www.itu.int/en/ITU-R/terrestrial/monitoring/listVIII/Pages/Internationalmonitoringstations.aspx>

# Regular monitoring programme

- Monitoring programme in the HF bands (2 850 – 28 000 kHz)
  - spectrum occupancy
  - emissions not in conformity
  - share data with administrations
- Submission
  - Data format [CR/159](#) (2001)
- Summaries at <http://www.itu.int/en/ITU-R/terrestrial/monitoring/Pages/Regular.aspx>

# Example summary of monitoring data for 01.10.22 to 31.12.22



UIT - BUREAU DES  
RADIOCOMMUNICATIONS

## CONTRÔLE INTERNATIONAL DES ÉMISSIONS

Cette publication contient les résultats de contrôle des émissions soumis par les administrations conformément à la lettre circulaire du BR CR/159 du 9 mai 2001

RÉSUMÉ N°:  
SUMMARY N°: **376**  
RESUMEN N°:

### Colonne description

Col.	Rubrique	Description
1	M_ADM	Administration responsable du centre de contrôle des émissions
2	M_CENTER	Centre de contrôle des émissions où les observations ont été faites
3	M_FREQ	Fréquence mesurée en kHz
4	M_JOUR	Jour pendant lequel l'observation a été faite
5	M_MOIS	Mois pendant lequel l'observation a été faite
6	M_HEURED	Heure de début de l'émission observée
7	M_HEUREF	Heure de fin de l'émission observée
8	M_DB	Valeur du champ mesuré en dB
9	M_IDEN	Identification de l'émission observée
10	M_ADMIN	Administration responsable de l'émission observée
11	M_CLST	Classe de la station contrôlée
12	M_BAND	Largeur de bande occupée
13	M_CLEM	Classe d'émission
14	M_LONG1	Degrés de la longitude
15	M_LONG2	Longitude Est ou Ouest
16	M_LONG3	Minutes de la longitude
17	M_LAT1	Degrés de la latitude
18	M_LAT2	Latitude Nord ou Sud
19	M_LAT3	Minutes de la latitude
20	M_BEAR	Relèvement de la station en degrés.
21	M_PREC	Précision estimée de la position ou la classification du relèvement
22	M_RR	Numéro de la colonne contenant les caractéristiques non conformes
23	M_REMARK	Remarques

ITU - RADIOCOMMUNICATION  
BUREAU

## INTERNATIONAL MONITORING

This publication contains spectrum monitoring information submitted by administrations in accordance with BR circular letter CR/159 of 9 May 2001

Période :  
Monitoring Period: **01.10.22 - 31.12.22**  
Periodo :

### Column description

Col.	Item	Description
1	M_ADM	Administration code responsible for the monitoring centre
2	M_CENTER	Monitoring centre where the observation was made.
3	M_FREQ	Frequency measured in kilohertz
4	M_JOUR	Day during which the observation was made
5	M_MOIS	Month during which the observation was made
6	M_HEURED	Starting time of the observed emission
7	M_HEUREF	Finishing time of the observed emission
8	M_DB	Field strength measured in dB
9	M_IDEN	Identification of the observed emission
10	M_ADMIN	Administration code responsible for the observed emission
11	M_CLST	Class of station of the monitored emission
12	M_BAND	Occupied bandwidth
13	M_CLEM	Class of emission
14	M_LONG1	Degrees portion of Longitude
15	M_LONG2	East or West Longitude
16	M_LONG3	Minutes portion of Longitude
17	M_LAT1	Degrees portion of Latitude
18	M_LAT2	North or South Latitude
19	M_LAT3	Minutes portion of Latitude
20	M_BEAR	Bearing of the station in degrees
21	M_PREC	Estimated accuracy or the classification of bearing
22	M_RR	Number of the column containing characteristics which are not in conformity
23	M_REMARK	Remarks

UIT - OFICINA DE  
RADIOCOMUNICACIONES



## COMPROBACIÓN TÉCNICA INTERNACIONAL DE LAS EMISIONES

Esta publicación contiene la información sobre comprobación técnica de emisiones (CTE) presentada por las administraciones de acuerdo con la carta circular CR/159 de la BR del 9 de mayo 2001

Dernière mise à jour des données:  
Date of last update: **23.01.23**  
Última fecha de actualización de datos:

### Descripción de columna

Col.	Elemento	Descripción
1	M_ADM	Administración encargada del centro de comprobación
2	M_CENTER	Centro de comprobación en el que se realizó la observación
3	M_FREQ	Frecuencia medida en kHz
4	M_JOUR	Día en que se efectuó la observación
5	M_MOIS	Mes en que se realizó la observación
6	M_HEURED	Hora en que se inicia la emisión observada
7	M_HEUREF	Hora de conclusión de la emisión observada
8	M_DB	Intensidad de campo medida en dB
9	M_IDEN	Identificación de la emisión observada
10	M_ADMIN	Administración responsable de la emisión observada
11	M_CLST	Clase de estación de la emisión observada
12	M_BAND	Anchura de banda ocupada
13	M_CLEM	Clase de emisión
14	M_LONG1	Grados de longitud
15	M_LONG2	Longitud hacia el este o hacia el oeste
16	M_LONG3	Minutos de longitud
17	M_LAT1	Grados de latitud
18	M_LAT2	Latitud norte o sur
19	M_LAT3	Minutos de latitud
20	M_BEAR	Marcación de la estación en grados
21	M_PREC	Precisión estimada de la clasificación de la marcación
22	M_RR	Número de la columna donde figuren las características que no guarden esa conformidad
23	M_REMARK	Observaciones



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
G	BALDOCK	2924.000	26	11							3K00E	G1D							143	B		
G	BALDOCK	2990.000	29	11							3K00E	G1D							153	B		
HNG	TARNOK	3030.100	25	10	0000	0430	29.7				10K0E	A3E										RUSSIAN
HNG	TARNOK	3065.984	25	10	0227	2400	32.6				11K7	A3E										RUSSIAN
HNG	TARNOK	3077.856	25	10	0000	2400	29.0				11K8	A3E										RUSSIAN
HNG	TARNOK	3079.998	25	10	0227	0430	27.3				11K9	A3E										RUSSIAN
HNG	TARNOK	3110.792	25	10	0227	0430	31.2				11K9	A3E										RUSSIAN
HNG	TARNOK	3144.982	25	10	0000	2400	34.3				11K7	A3E										RUSSIAN
J	TOKYO	3205.000	12	10	1007					BC		D7W										
J	TOKYO	3205.000	17	10	0750				CHN				120	E	48	37	N	04	281	A		
J	TOKYO	3205.000	29	11	1003				KRE				125	E	44	39	N	20	295	A		
J	TOKYO	3205.000	06	12	0750																	
J	TOKYO	3205.000	20	12	0419				KRE	BC		D7W	126	E	51	40	N	05	297	A		
HNG	TARNOK	3230.000	27	10	0000	0500	39.6				3K00E	G1D										STANAG 4285
HNG	TARNOK	3231.500	27	10	1901	2400	33.5				3K00E	G1D										
G	BALDOCK	3231.800	13	11					DNK		3K00E	G1D							57	A		2400BD STANAG 4285
HNG	TARNOK	3243.000	27	10	0000	0530	38.0				2K40E	J3E										USB
HNG	TARNOK	3243.641	27	10	1600	2400	32.7				2K70E	J3E										
J	TOKYO	3249.990	20	12	0425			KOREAN CENTRAL B.S.		BC		A3E	126	E	38	40	N	39	299	A	11	
J	TOKYO	3250.000	12	10	1009			KOREAN CENTRAL B.S.		BC		A3E										11
J	TOKYO	3250.000	17	10	0753			KOREAN CENTRAL B.S.		BC		A3E										
J	TOKYO	3250.000	15	11	0134			KOREAN CENTRAL B.S.		BC		A3E							295	A	11	
J	TOKYO	3250.000	21	11	2349				KRE	BC		A3E	125	E	27	39	N	08	291	A		
J	TOKYO	3250.000	29	11	1006				KRE	BC		A3E	125	E	31	39	N	16	292	A		
J	TOKYO	3250.000	06	12	0753			KOREAN CENTRAL B.S.		BC		A3E										11
G	BALDOCK	3251.000	02	11					NOR		3K00E	G1D							23	A		2400BD STANAG4285
RUS	S. PETERSBURG	3251.081	30	12	0605	0612	19.0		S	FX		G1D	013	E	24	60	N	27	279	B		
HNG	TARNOK	3259.600	27	10	1500	2400	41.6				3K00E	G1D										STANAG 4285
HNG	TARNOK	3260.000	27	10	0000	0600	46.6				3K00E	G1D										STANAG 4285
G	BALDOCK	3260.000	02	11					GRC		3K00E	G1D							122	A		2400BD STANAG4285
HNG	TARNOK	3266.000	27	10	1908	1930	26.1				2K70E	J3E										USB
G	BALDOCK	3275.000	13	11					UKR		3K30E	J7D							93	A		SEVASTOPOL
G	BALDOCK	3287.800	13	11					NOR		3K00E	G1D							31	A		2400BD STANAG 4285
J	TOKYO	3303.190	06	12	0757							A1A										
J	TOKYO	3320.000	12	10	1012			PYONG YANG B.S.		BC		A3E										11
J	TOKYO	3320.000	17	10	0758					BC		A3E							283	A		
KOR	CRMS	3320.000	18	10	0422	0422	14.8		KRE	BC		A3E										11
KOR	CRMS	3320.000	11	11	0356	0356	-7.5		KRE	BC		A3E										11
J	TOKYO	3320.000	21	11	2351				KRE	BC		A3E	125	E	47	39	N	02	291	A		

# Special monitoring programme

- Since 1987 in band 406-406.1 MHz allocated exclusively to satellite emergency position-indicating radio beacons (EPIRBs)
- Statistics on interfering emissions reported at <https://www.itu.int/en/ITU-R/terrestrial/monitoring/Pages/Res205.aspx>
- An online database query facility at <https://www.itu.int/en/ITU-R/terrestrial/monitoring/Pages/Res205Query.aspx>



Committed to connecting the world



- ITU
  - General Secretariat
  - Radiocommunication**
  - Standardization
  - Development
  - ITU Telecom
  - Members' Zone
  - Join ITU
- About ITU-R
  - Events
  - Databases & e-Services
  - Publications
  - Space
  - Terrestrial
  - Study Groups
  - Regional Presence
  - Join ITU-R

# Monitoring Programme band 406-406.1 MHz (Resolution 205, COSPAS-SARSAT)

YOU ARE HERE: [ITU](#) > [HOME](#) > [ITU-R](#) > [TERRESTRIAL SERVICES](#) > [MONITORING](#) > [MONITORING PROGRAMME BAND 406-406.1 MHz \(RESOLUTION 205, COSPAS-SARSAT\)](#)

SHARE [f](#) [t](#) [in](#) [m](#)





## Measurement Reports Received from Administrations

Date of receipt	Administration	Report	Emissions observed	Location of transmitters
07/02/2023	F	<a href="#">RES205-F-2022-09-2023-01</a>	85	BLR,RUS,SYR,TUR,UKR
06/02/2023	E	<a href="#">RES205-E-2023-01</a>	20	F,I,LIBY,NGR,RUS,SYR,UKR
05/02/2023	I	<a href="#">RES205-I-2022-01</a>	11	I,G,RUS,SYR,UKR
03/02/2023	CHN	<a href="#">RES205-CHN-2023-01</a>	2	CHN,RUS
23/01/2023	GRC	<a href="#">RES205-GRC-2022-11-12</a>	7	RUS,UKR
22/01/2023	CHN	<a href="#">RES205-CHN-2022-12</a>	2	RUS
13/01/2023	E	<a href="#">RES205-E-2022-12</a>	17	ALG,F,NGR,RUS,SOM,SYR,TUR,UKR
01/01/2023	I	<a href="#">RES205-I-2022-12</a>	5	RUS,SYR,UKR
09/12/2022	E	<a href="#">RES205-E-2022-11</a>	7	F,MLI,NGR,RUS,SYR,UKR
02/12/2022	GRC	<a href="#">RES205-GRC-2022-09-10</a>	9	ALG,KAZ,RUS,TUR
02/12/2022	I	<a href="#">RES205-I-2022-11</a>	4	RUS,UKR
08/11/2022	E	<a href="#">RES205-E-2022-10</a>	11	F,IRN,NGR,RUS,SYR,UKR
01/11/2022	I	<a href="#">RES205-I-2022-10</a>	8	RUS,SYR,UKR
25/10/2022	F	<a href="#">RES205-F-2022-07-08</a>	24	BLR,RUS,SYR,UKR
10/10/2022	TUR	<a href="#">RES205-TUR-2022-09</a>	11	RUS,UKR
08/10/2022	I	<a href="#">RES205-I-2022-09</a>	6	IRN,RUS,SYR,UKR
06/10/2022	E	<a href="#">RES205-E-2022-09</a>	13	F,IRN,NGR,RUS,SOM,SYR,UKR
28/09/2022	GRC	<a href="#">RES205-GRC-2022-07-08</a>	6	MRC,UKR
25/09/2022	E	<a href="#">RES205-E-2022-08</a>	16	BRM,KWT,NGR,RUS,SOM,SYR,UKR
08/09/2022	I	<a href="#">RES205-I-2022-08</a>	5	UKR

Feedback



# Monitoring Programme band 406-406.1 MHz (Resolution 205, COSPAS-SARSAT)

YOU ARE HERE [ITU](#) > [HOME](#) > [ITU-R](#) > [TERRESTRIAL SERVICES](#) > [MONITORING](#) > MONITORING PROGRAMME BAND 406-406.1 MHZ (RESOLUTION 205, COSPAS-SARSAT) SHARE    

This page provides consolidated information extracted from the reports received from Administrations participating in the monitoring programme in the band 406-406.1 MHz in application of Resolution 205(Rev. WRC-19). The objective of this programme is to identify and locate unauthorized emissions in the band 406-406.1 MHz that cause harmful interference to the reception of satellite EPIRB signals of the COSPAS-SARSAT system.

Upon receipt of the reports, the Radiocommunication Bureau immediately contacts the Administrations responsible for the area where the unauthorized transmitters are located, requesting them to take immediate action with a view to stopping the emissions.

## DATABASE CONTAINING ALL REPORTS RECEIVED BY THE BR (SINCE 2008/01/01)

**Please define the criteria for data retrieval:**

Observer Administration:  Geographical area of unauthorized emissions:

Frequency range: from  MHz to  MHz Site ID:

Geographical location: Latitude(DD.DDD):  Longitude(DD.DDD):  Radius(km):

Date of observation: From:   To:    Paged Results



Date of observation:

From: 2022 January

To: 2022 December

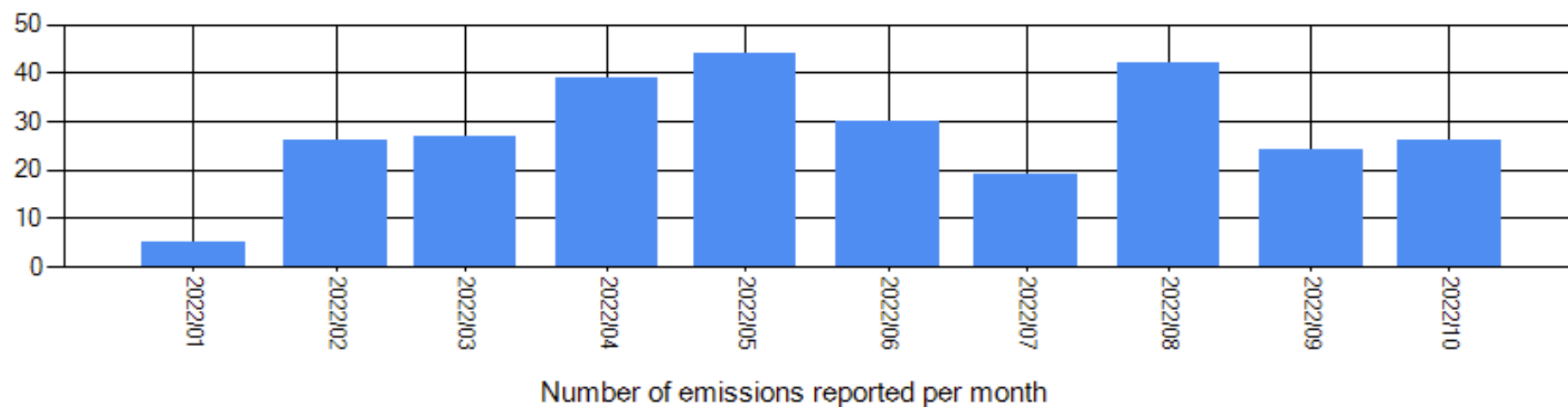
 Paged Results

Search

Total Number of observations retrieved: 284

	<a href="#">Observer</a>	<a href="#">SiteID</a>	<a href="#">Country</a>	<a href="#">City</a>	<a href="#">Direction</a>	<a href="#">Distance</a>	<a href="#">Latitude</a>	<a href="#">Longitude</a>	<a href="#">Frequency (MHz)</a>	<a href="#">Observations</a>	<a href="#">Monthly Ratio</a>	<a href="#">First Date</a>	<a href="#">Last Date</a>
1	F	5	RUS	Klimovsk	SW	24.01	55.14	37.28	406.046	464		20220302	20220430
2	F	9	RUS	Boguchar	NW	8.65	49.95	40.49	406.021	393		20220314	20220430
3	F	15	RUS	Volokonovka	SW	7.64	50.43	37.79	406.053	299		20220405	20220416
4	F	19	RUS	Bataysk	SE	2.57	47.12	39.78	406.049	215		20220424	20220430
5	F	10	SYR	Qabasin	NE	14.59	36.49	37.72	406.058	183		20220315	20220430
6	F	18	SYR	Qabasin	NE	89.68	36.87	38.41	406.049	147		20220422	20220429
7	F	17	UKR	Dergachi	NE	13.35	50.22	36.17	406.044	143		20220406	20220428
8	F	16	RUS	Veydelevka	NE	12.46	50.16	38.62	406.048	133		20220408	20220420
9	F	6	RUS	Kubinka	NW	6.39	55.61	36.64	406.048	100		20220301	20220424
10	F	10	SYR	Qabasin	SE	16.47	36.38	37.74	406.058	92		20220315	20220430

[1](#)
[2](#)
[3](#)
[4](#)
[5](#)
[6](#)
[7](#)
[8](#)
[9](#)
[10](#)
[...](#)



# Final remarks

- Continuation of HF and 406 MHz monitoring programmes
- Administrations to take part in the programmes
- Assistance in identifying source of harmful interference

A large, light blue watermark of the ITU logo is centered on the slide, behind the main text.

# Thank you!

Ben BA, Head Terrestrial Publication and Registration Division

ITU – Radiocommunication Bureau

E-mail: [ben.ba@itu.int](mailto:ben.ba@itu.int)