



AFRICAN TELECOMMUNICATIONS UNION  
L'UNION AFRICAINE DES TÉLÉCOMMUNICATIONS



## Training course outline

### ITU and African Advanced Level Telecommunications Institute

Title	<b>Satellite Coordination Procedures and Filings</b>
Modality	Online instructor led
Dates	7 February – 4 March 2022
Duration	4 weeks
Registration deadline	4 February 2022
Training fees	Sponsored Course by ATU
Description	<p>Based on ITU's Radio Regulations, the course aims to provide training in:</p> <ul style="list-style-type: none"><li>- ITU, ITU-R &amp; Orbit Spectrum Allocation Procedures;</li><li>- Coordination, Notification &amp; recording Procedures for Non Plan Frequency Bands;</li><li>- Technical &amp; Regulatory Examination of satellite filings;</li><li>- Coordination between Geostationary Satellite Networks;</li><li>- Receivability of Space Notices for API, CRC and Notification;</li><li>- BR Space software and databases;</li><li>- BRIFIC, Preface and Rules of Procedures;</li><li>- Administrative Due Diligence (Resolution 49);</li><li>- Cost Recovery for Satellite Network Filings;</li><li>- Commenting on Special Sections – API and CRC;</li><li>- Regulatory procedure for satellite networks not subject to coordination;</li><li>- ITU BR Space Services Web page</li></ul>
Course code	22OI27990AFR-E

## 1. LEARNING OBJECTIVES

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The course aims to provide an exposure to ITU's Radio Regulations, Coordination and Notification Procedures of Article 9 and 11 respectively, ITU databases and software packages and filing procedures for Non-Plan space services. Space Plans Appendix 30/30 and 30B are not included.

## 2. LEARNING OUTCOMES

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ITU's Radio Regulations, available in 4 volumes, are complex international binding treaty documents. After the training course the participant is expected to be familiar with the satellite filing, coordination and notification procedures as contained in the Radio Regulations, use of ITU BR Space software packages and databases, International Frequency and Information Circular (IFIC), Preface and the Rules of Procedure (RoP).

## 3. TARGET POPULATION

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The course is in general designed for an audience that deal with telecommunication organizations and concerned particularly with space radiocommunication services. For initiating ITU filings for satellite networks and taking further steps towards coordination, notification and registration of frequency assignments to space systems with the ITU Radiocommunication Bureau, this course shall provide details and procedures.

## 4. ENTRY REQUIREMENTS

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As a prerequisite, the audience of this course is expected to be from an engineering or technical background familiar with the principles of satellite communication. Familiarity with ITU's Radio Regulations and some background about how satellite notices are dealt with by the ITU, would be an advantage.

## 5. TUTORS/INSTRUCTORS

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NAME OF TUTOR(S)/INSTRUCTOR(S)	CONTACT DETAILS
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## 6. TRAINING COURSE CONTENTS

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Based on ITU's Radio Regulations, the course aims to provide training in:

- ITU, ITU-R & Orbit Spectrum Allocation Procedures;

Brief Description: Brief details of ITU's Radiocommunication Bureau and Space Services Department, its layout and working. Principles of space coordination procedures and ITU's Radio Regulation (a binding international treaty document) shall be introduced.

- Coordination, Notification & recording Procedures for Non Plan Frequency Bands;

Brief Description: Methodology for making satellite filings, explaining the procedures contained in Article 9 (satellite Coordination), Article 11 (satellite Notification), Appendix 5, Article 21 (Technical examination of satellite filings) etc. shall be explained.

- Technical & Regulatory Examination of satellite filings;

Brief Description: How does the Space Services Department and its various Divisions carry out the checks of new and modified satellite filings and carry out technical and regulatory examinations using ITU/BR software packages and update the ITU data base for satellite networks and publish the IFIC – International Frequency Information Circular.

- Coordination between Geostationary Satellite Networks;

Brief Description: In accordance with Appendix 8 of ITU's Radio regulations what is principle for carrying our GSO to GSO coordination

- Receivability of Space Notices for API, CRC and Notification;

Brief Description: Elaborate on the procedures and methodology and conditions involved in dealing with the satellite filings for API, CRC and Notification

- BR Space software and databases;

Brief Description: An introduction to the BR (Radiocommunication Bureau) Space software and databases used for technical and regulatory examination of satellite filings.

- BRIFIC, Preface and Rules of Procedures;

Brief Description: Explanation of the details and contents of BRIFIC (BR- International Frequency Information Circular), Preface and Rules of Procedures. How to understand the details contained in these regular publication made by the ITU, their importance and utilization.

- Administrative Due Diligence (Resolution 49);

Brief Description: An elaborate description of the administrative due diligence process contained in Resolution 49 of the Radio Regulations. This is a mandatory requirement to be fulfilled before the frequency assignments of a satellite network can be recorded in ITU's Master International Frequency Register (MIFR).

- Cost Recovery for Satellite Network Filings;

Brief Description: What does it cost a member administration of the ITU to make a satellite filing. How is the calculation for cost recovery made by the ITU/BR.

- Commenting on Special Sections – API and CRC;

Brief Description: After the publication of the necessary Special Section for API or CRC by the ITU/BR, how do various administrations examine it for making comments within the stipulated time frame.

- Regulatory procedure for satellite networks not subject to coordination;

Brief Description: For those satellite networks who use or propose to use frequency bands that are NOT subject to coordination as per Article 9 of the Radio Regulations, what procedures are involved. How is the filing made and then examined by the ITU/BR.

- ITU BR Space Services Web page

Brief Description: An introduction to the details contained in ITU BR Space Services web page. How to look for desired information and use the same.

## 7. TRAINING COURSE SCHEDULE

Week / Session	Topic	Exercises and interactions
Week 1	1. ITU, ITU-R & Orbit Spectrum Allocation Procedures 2. Receivability of Space Notices for API, CRC and Notification 3. Coordination, Notification & recording Procedures for Non Plan Frequency Bands	<i>Exercise</i> - Submission of API for satellite networks not subject to coordination <i>Exercise</i> - Capture, validation and submission - CRC <i>Exercise</i> on Coordination and Notification of Earth Stations
Week 2	4. Technical & Regulatory Examination of satellite filings 5. Coordination between Geostationary Satellite Networks 6. BR Space software and databases	<i>Exercise</i> - Coordination of Earth Stations – AP7 <i>Exercise</i> - AP8-dT/T and GIBC-AP8 examination Exercise – CRC Examination (GIBC/PFD)
Week 3	7. BRIFIC, Preface and Rules of Procedures 8. Cost Recovery for Satellite Network Filings 9. Administrative Due Diligence (Resolution 49)	<i>Exercise</i> on the BR IFIC <i>Exercise</i> - BR IFIC how my ADM is affected? <i>Exercise</i> – Cost recovery calculation using SpaceCap BR software <i>Exercise</i> – creation of RES-49 submission to the BR using SpaceCap

Week 4	10. Commenting on Special Sections – API and CRC	Exercise – Comments on BR IFIC using SpaceCom
	11. Communication with the Bureau e-submission and e-communication	Exercise – Submission of filings and comments to the Bureau
	12. ITU BR Space Services Web page	Exercise – SNL and SNS online

## 8. METHODOLOGY (Didactic approach)

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Power Point Presentations shall be made by the instructors to introduce and explain the finer points of the subject matter. Necessary references shall be provided to the relevant provisions of ITU’s Radio Regulations and other publications of the Radiocommunication Bureau/ Space Services Department. ITU/BR software packages shall be demonstrated. These packages have been developed in-house at the ITU/Radiocommunication Bureau. Focus shall be to explain the relevant procedures associated with the title of the subject matter i.e. Satellite coordination and filing.

There would be group exercises using the ITU/BR/SSD Web page. Methods to query ITU database shall be explained besides, data capture, use of validation software and other software packages to calculate the PFD (Power Flux Density) on the Earth’s surface and to check it with the limits of Article 21. Methods to use Appendix 5 for illustrating conditions of satellite coordination shall be explained and there would be exercises and quizzes to illustrate the concept. There shall be other exercises related to various subject matters described above in the Training Course Schedule.

Live lectures and discussions will be conducted through ZOOM every week on Tuesday and Wednesday from 1500 Hours to 1700 Hours EAT.

## 9. EVALUATION AND GRADING

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The evaluation is based on:

- Attendance (16%)
- Participation in Forums (20%)
- Quizzes/Exercises (64%)

The candidate is required to score at least 60% to get ITU Certificate.

## 10. TRAINING COURSE COORDINATION

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<p><b>AFRALTI coordinator:</b></p> <p>Jonathan Mwakijele  Head of Management, Policy and Regulatory Unit  Nairobi, Kenya.  Tel: +254 718 860 897  Email: <a href="mailto:Jmwakijele@afralti.org">Jmwakijele@afralti.org</a></p>	<p><b>ITU coordinator:</b></p> <p>Emmanuel Niyikora,  Programme Officer,  ITU Area Office for West Africa, Dakar, Senegal.  Tel : +250 788 312 939  Email: <a href="mailto:emmanuel.niyikora@itu.int">emmanuel.niyikora@itu.int</a></p>
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