



**ITU/ITSO WORKSHOP ON SATELLITE COMMUNICATIONS ABUJA, NIGERIA October 22 – 26, 2018 Workshop Program**

Time	Day 1 (Oct 22)	Day 2 (Oct 23)	Day 3 (Oct 24)	Day 4 (Oct 25)	Day 5 (Oct 26)
08.30-09.00	<b>Opening Session</b>				
09.00-10.30	<b>Basics of Satellite Communications</b>	<b>Fundamentals of Satellite Communications</b>	<b>Radio Regulations (Cont'd)</b>	<b>Link Budget Analysis (Cont'd)</b>	<b>VSAT Equipment and Bandwidth Procurement</b>
	<ul style="list-style-type: none"> <li>• Birth of Satellite</li> <li>• Communication Links</li> <li>• Satellite Orbits</li> <li>• Orbital Positions and Radio Interference</li> <li>• Satellite Lifecycle Management</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction to Satellite Communications</li> <li>• Satellite Network Design</li> <li>• Technology Trends</li> <li>• Satellite Earth Station Components</li> </ul>	<ul style="list-style-type: none"> <li>• Exercise on Small Satellites: Capturing Advance Publication Information (API)</li> <li>• Exercise on Small Satellites: Converting API Information to Notification Information</li> </ul>	<ul style="list-style-type: none"> <li>• Link Budget Parameters</li> <li>• Link Budget</li> <li>• Link Budget Tools</li> </ul>	<ul style="list-style-type: none"> <li>• Defining needs</li> <li>• Procuring the VSAT system</li> </ul>
10.30-11.00	<b>Morning Health Break</b>	<b>Morning Health Break</b>		<b>Morning Health Break</b>	<b>Morning Health Break</b>
11.00-12.30	<b>Basics of Satellite Communications (Cont'd)</b>	<b>Radio Regulations (Cont'd)</b>	<b>Radio Regulations (Cont'd)</b>	<b>VSAT Installation and Maintenance</b>	<b>Policy and Regulatory Guidelines for Satellite Services</b>
	<ul style="list-style-type: none"> <li>• The Space Segment</li> <li>• The Ground Segment</li> <li>• Services</li> <li>• Digital Video Broadcasting,</li> <li>• Digital Satellite News Gathering</li> <li>• Broadband Internet</li> <li>• Multicast Internet Services</li> </ul>	<ul style="list-style-type: none"> <li>• Receivability of Space Notices and e-submission (Resolution 908)</li> <li>• BRIFIC (Space Services) and Preface</li> <li>• Space Databases</li> <li>• Submission of Comments using Space Com</li> </ul>	<ul style="list-style-type: none"> <li>• Exercise on Earth Station: Capturing of Earth Station for coordination (Article 9).</li> <li>• Exercise on Earth Station: Creation of Earth Station coordination contours</li> </ul>	<ul style="list-style-type: none"> <li>• Site Survey</li> <li>• Antenna Alignment</li> <li>• Satellite Pointing</li> <li>• Preventive Maintenance</li> <li>• Troubleshooting</li> <li>• Service Level Agreement</li> <li>• Escalation Procedure</li> </ul>	<ul style="list-style-type: none"> <li>• Legal Framework</li> <li>• Key regulatory and licensing trends</li> <li>• Market Entry</li> </ul>



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12.30-14.00	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break
14.00-15.30	Radio Regulations	Radio Regulations (Cont'd)	Satellite Broadband	Radio Regulations (Cont'd)	Wrap Up Session
	<ul style="list-style-type: none"> <li>Overview</li> <li>Orbital Spectrum – International Regulatory Framework</li> <li>Space FSS and BSS Plans</li> <li>Non Planned Satellite Services (Coordination and Notification)</li> </ul>	<ul style="list-style-type: none"> <li>Introduction to BR Space Software</li> <li>Installation of BR Software</li> <li>Space Services Website</li> </ul>	<ul style="list-style-type: none"> <li>Regulatory Issues</li> <li>Principles</li> <li>Impelemetion</li> </ul>	<ul style="list-style-type: none"> <li>Exercise on Earth Station: Submission of Earth Station Notification after Validation (Article 11)</li> <li>Exercise: Commenting on API/A Special Section using SpaceCom</li> </ul>	
15.30-15.45	Afternoon Health Break	Afternoon Health Break	Afternoon Health Break	Afternoon Health Break	Afternoon Health Break
15.45-16.30	Radio Regulations (Cont'd)	Network Planning Fundamentals	Link Budget Analysis	WRC-19 Preparations	Closing Activities
	<ul style="list-style-type: none"> <li>Small Satellite Regulations</li> <li>Cost Recovery for satellite filings</li> </ul>	<ul style="list-style-type: none"> <li>Digital Communication Techniques</li> <li>Modulation</li> <li>Satellite Economics</li> <li>Satellite Network Topologies</li> </ul>	<ul style="list-style-type: none"> <li>Components of a satellite circuit</li> <li>Digital Communications Chain</li> <li>Modulation</li> <li>Chanel Coding</li> <li>Efficiency</li> </ul>	<ul style="list-style-type: none"> <li>WRC process</li> <li>WRC-19 Agenda items related to Space Services</li> </ul>	