

Satellite Communication Systems Planning & Coordination

Düsseldorf (Germany)

28 April 2025 - 2025 May 2

UK Traininig

PARTNER



Satellite Communication Systems Planning & Coordination

Code: GC28 From: 28 April 2025 - 2025 May 2 City: Düsseldorf (Germany) Fees: 4400 Pound

Introduction

Successful as they are today, satellite systems are on the brink of a revolution that will doubtless have a significant impact in the not-too-distant future. New and promising technology continues to appear every day. This course covers the most recent advancement in satellite communication systems to develop an understanding of the major approaches, including network topologies, and VSAT. The course covers all aspects of satellite systems and networks' theory, practice, and operation.

Course Objectives of Satellite Communication Systems Planning & Coordination

- Being introduced to satellite communication systems
- Learning about satellite band frequencies
- Examining the potential security risks in AAA
- Understanding the wireless LAN and Other Access Technology

Satellite Communication Systems Planning & Coordination Course Outlines

Day 1

Introduction of Satellite communication systems

- Introduction of Advanced Satellite communication systems
- Multiple Access Techniques: FDMA, TDMA, CDMA, Random Access
- All Digital Modulation Techniques
- Amplitude Shift Keying ASK and Frequency Shift Keying FSK
- Binary Phase Shift Keying BPSK and Quadrature Phase Shift Keying QPSK
- Data Rate And Baud Rate

Day 2

Earth Station Antenna



- Earth Station Antenna types
- SNG Antennas
- Fly Away Antennas
- On the move antenna
- Maritime Antennas
- TVRO Antennas
- Pointing/Tracking

Day 3

Satellite band frequencies

- Small antennas at Ku band
- FCC-Intelsat-ITU antenna requirements and EIRP density limitations
- Overview of satellite bands frequencies
- The electromagnetic spectrum
- The radio spectrum
- Windows to space
- L-band 1-2 GHz
- S-band 2-4 GHz
- C-band 4-8 GHz
- X-band 8-12 GHz
- Ku-band 12-18 GHz
- Ka-band 26-40 GHz

Day 4

Satellite communications system

- Satellite communications system design
- Basic Link Engineering
- Satellite Systems Planning
- Link Budgets
- Propagation Interference and Regulation
- Payload & Spacecraft & Earth Station Engineering
- Use cases
- Frequency Sharing Between GSO FSS Satellite Networks
- Coordination of GSO FSS satellite Networks in the Unplanned Bands.
- Coordination of GSO FSS Satellite Networks in the Planned Bands

Day 5



Orbit types & Spectrum allocations for satellite systems

- Orbit types: GEO, LEO, MEO, HEO
- Link budgets for single links and multiple links
- Effects of the propagation delay
- Spectrum allocations for satellite systems
- Key parameters: EIRP G/T, SFD, Input/Output Backoff, C/No, Eb/No
- System Architecture of Satellite Communications Payloads
- Evolution of communications Payload Technologies
- Applications
- Activity-Based Intelligence ABI



Blackbird Training Cities

Europe



Zurich (Switzerland)



Stockholm (Sweden)



Lyon (France)



Copenhagen (Denmark)



Bordeaux (France)



Annecy (France)



Oslo (Norway)



Edinburgh (UK)



Glasgow (Scotland)



Malaga (Spain)



London (UK)



Istanbul (Turkey)



Amsterdam (Netherlands)
(Switzerland)



Düsseldorf (Germany)



Paris (France)



Barcelona (Spain)



Munich (Germany)



Geneva



Prague (Czech)



Vienna (Austria)



Rome (Italy)



Brussels (Belgium)



Madrid (Spain)



Berlin (Germany)



Lisbon (Portugal)



Manchester (UK)



Milan (Italy)

USA & Canada



Los Angeles (USA)



Florida (USA)



Online



Boston (USA)



Washington (USA)



Miami(USA)



New York (USA)



Toronto (Canada)

UK Training
PARTNER



Blackbird Training Cities

Asia



Baku (Azerbaijan)



Maldives (Maldives)



Manila (Philippines)



Bali (Indonesia)



Bangkok (Thailand)



Beijing (China)



Moscow (Russia)
(Malaysia)



Singapore (Singapore)



Sydney (Australia)



Tokyo (Japan)



Dubai (UAE)



Kuala Lumpur



Jakarta (Indonesia)

Africa



Kigali (Rwanda)



Cape Town (South Africa)



Accra (Ghana)



Lagos (Nigeria)



Marrakesh (Marocco)



Nairobi (Kenya)



Cairo (Egypt)



Sharm El-Sheikh (Egypt)



Casablanca (Morocco)



Tunis (Tunisia)



Blackbird Training Clients



UK Training
PARTNER



Blackbird Training Categories

Management & Admin

Professional Skills
Finance, Accounting, Budgeting
Media & Public Relations
Project Management
Human Resources
Audit & Quality Assurance
Marketing, Sales, Customer Service
Secretary & Admin
Supply Chain & Logistics
Management & Leadership
Agile and Refinement

Technical Courses

Hospital Management
Public Sector
Special Workshops
Oil & Gas Engineering
Telecom Engineering
IT & IT Engineering
Health & Safety
Law and Contract Management
Customs & Safety
Aviation
C-Suite Training



International House 185 Tower Bridge
Road London SE1 2UF United Kingdom



+44 7401 1773 35
+44 7480 775526



training@blackbird-training.com



www.blackbird-training.com

UK Training
PARTNER

