BeaconSeek

Basic SNG Operations Course

3—5 October 2017

University
of Bedfordshire

Luton
United Kingdom

Basic Satellite Newsgathering Operations Course

Principal Tutor - Jonathan Higgins (CEng MIET)

We have run this intensive satellite newsgathering (SNG) course for nearly ten years as a public event. It is based on training we deliver to companies within the industry over many years, and these public courses have proven very popular, helping a number of delegates obtain employment in the industry. Our course is widely respected within the industry; we are supported by several major satellite operators and equipment manufacturers.

"A tremendous course, exactly what I needed ..."

Aimed at absolute beginners to intermediate level experience, with no prior knowledge assumed, typical delegates come from the following backgrounds:

- Cameraman / Picture editor / Sound operator
- Master control room engineers who want a feel of what it's like "out there"
- Military leavers wishing to start a career in SNG
- Manufacturers' sales staff
- Managers wanting a hands-on feel of the technology in order to make informed purchasing judgements

This three day intensive course for up to six students will equip delegates with the theoretical and practical knowledge to undertake basic operations of an SNG uplink, both flyaway and vehicle-based.

" Terrific value for money … my company will quickly recoup the investment."

We deliberately keep the number of delegates restricted to no more than six to maximize the tutor/student contact time, and so that everyone has the benefit of undertaking at least one, if not several, live transmissions.

" Beautiful venue … lovely food … great atmosphere for learning as a beginner. "

After the intensive first day of digestible theory on the technology and principal components that make up an SNG system, the course continues with a number of practical exercises spanning the remaining time designed to reinforce the theory learnt.

From the beginning of the practical sessions, delegates undertake an exercise that includes carrying out a site survey identifying the position of points of interest, the satellites of interest, and then deciding collectively exactly where to rig the flyaway antenna to achieve a successful transmission.

They then move onto rigging the manually-operated antenna for a number of preliminary tests with several satellites before undertaking their first transmission. This continues on into the third day with further transmissions. During the final afternoon they have the opportunity of seeing an auto-pointing SNG van being demonstrated.

Course Syllabus

Day One - Theoretical Session

Introduction to satellites

- Basic history
- Satellite Orbits
- Types of satellite
- Use in newsgathering

Satellite Configuration

- Frequency bands used (L, C, Ku, & Ka)
- Uplink & Downlink frequencies
- Polarization
- Transponders – organization and usage
- Link Budgets

System Principles Overview

- Broadcast Video & Audio
- MPEG Compression & Encoding
- IP connectivity for Ka-band
- DVB Modulation & FEC
- Upconverters
- Amplifiers
- Antennas
- Link Performance
- Monitoring & Communications

Working with a Satellite

- Frequency Parameters
- Using a Spectrum Analyzer
- LNBs & Calculating receive frequencies
- Finding & identifying satellites - carriers, beacons & polarisation
- 'Clean carrier', Modulation
- Interference – identifying and avoidance, carrier ID

Accessing Satellites

- Satellite Control Centres and their role
- How to access the satellite
- Protocols, alignment, routine tests etc.
- 'Talk up' & 'Talk down' procedures

Site Surveys & Safety

- What to look for / what to avoid
- Use of compass and clinometer
- Survey Checklist – satellite view, power, access etc.
- Safety & minimising risks

Day Two - Practical Session Part One

Carrying out a Site Survey. Practical exercises using using a manually-operated Ku-band flyaway then moving on to using a spectrum analyzer, including flyaway assembly, finding satellites, alignment, receiving and transmitting to satellite, and de-rigging.

Day Three - Practical Session Part Two

Continuing practical exercises using Ku– and Ka-band flyaways, including assembly, alignment, transmissions to satellite, and de-rigging.

Demonstrations using an SNG truck with an auto-pointing antenna system, including set-up and transmissions to satellite.

Course Details

Cost: £1194 (£995 + 20% VAT)
Early Bird Discount Rate - Enrol (pay in full) by 31 August 2017 - £1074 (£895 + VAT)

Included: All tuition, course materials, refreshments, and lunches during the course

Excluded: Overnight accommodation and transportation

Qualification: Throughout the course, delegates will be assessed and, provided they reach the required standard, will each receive a Certificate of Competency on completion.

Prerequisites for attending course: NONE

Course Preview - https://www.youtube.com/watch?v=8YzqAZ-_9ac

Location: University of Bedfordshire, Putteridge Bury Conference Centre, Hitchin Road, Luton LU2 8LE, UK (http://www.beds.ac.uk/knowledgehub/events/putteridgebury)

The campus is just 10 minutes from London Luton airport and Luton train station.

With convenient connections to London Heathrow, London Gatwick and London Stansted airports, there are a number of local hotels available at a range of prices, and we would be pleased to assist in making reservations and arranging local transport.

There is ample car parking space on site.

Bookings: please email training@beaconseek.com to enquire further, or call +44 (0)1582 842717

IMPORTANT – TRAINING COURSE BOOKINGS - TERMS & CONDITIONS
Please note that we reserve the right to cancel or re-schedule training courses without liability for financial penalty or compensation to the Customer other than a full refund of any course fees already paid by the Customer in advance of the related course.