

# SNG Training for the 21st Century



## BASIC SNG OPERATIONS



**Basic SNG Operations is the initial SlingPath satellite newsgathering (SNG) course for the absolute beginner.**

Students learn:

- the basics of satellites
- how they are used in newsgathering
- the key technical parameters and the critical component parts of an SNG system
- how to work with satellites

SlingPath material is highly graphical, interactive, and user-friendly. Complex subjects are presented in ways that make them approachable to all learners.

The course is split into seven modules, with a multiple-choice test at the end of each. Students must pass a final multiple-choice examination to achieve the Record of Competency.

A virtual tutor supports students as they progress through the course, and an online Notice Board enables students to post questions to a SlingPath tutor. Answers are then posted for the benefit of the whole student community.

Jonathan Higgins's *Introduction to SNG and ENG Microwave* can be purchased to assist students through the course.

The Basic SNG Operations course has been accredited by SUIRG, WBU-ISOG and Eutelsat.



## Practical Training

**Operators can also take the companion course, Practical SNG Operations.** This is a three-day practical course with a hands-on examination, which can be taken at one of eight practical training centers to be established around the globe by the end of 2008.

Centers have been established in the US, the UK, Cyprus and Singapore. According to demand, we aim to establish centers soon in Central and South America and Africa; eventually centers will cover other parts of Europe, North America and Asia.

Once the participant has completed this practical stage, they will be awarded a Certificate in SNG Operations. This will demonstrate to any satellite operator or employer that they have not only attended a training course but have also been examined to an industry standard.

## Unique Approach

**SlingPath programs are different for two reasons:**

- SlingPath provides the first competency-based training available for the SNG community.
- SlingPath courses are delivered over the Internet, making them accessible to all users at any time.

Students have one year to complete the course, giving them the chance to work at their own pace. During the year they can retake modules as often as needed without penalty.

To keep abreast of the steady advances in technologies, SlingPath requires students to complete a "refresher" training course. This is taken between the 2nd and 3rd anniversary of their initial qualification, to maintain certification and keep SlingPath graduates at the forefront of SNG technology.

SlingPath courses are operator-orientated, relevant, accessible, affordable, and competency-based.



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## Detailed Online Syllabus

### Module 1: Introduction to SNG Operations

- 1.0 Introduction to SNG Operations
- 1.1 What is Satellite Newsgathering?
- 1.2 What are Satellites?
- 1.3 Basic History
- 1.4 Significance of SNG
- 1.5 Types of Satellites
- 1.6 More on Geostationary Earth Orbit (GEO)
- 1.7 Use in Newsgathering

### Module 2: Satellite Operation

- 2.0 Introduction
- 2.1 Satellite Operation
- 2.2 Waves
- 2.3 Frequency Bands Used
- 2.4 Polarization
- 2.5 Transponders
- 2.6 Properties of a TV Picture

### Module 3: System Principles Overview Part 1

- 3.0 Introduction
- 3.1 System Principles Overview
- 3.2 Analogue Theory
- 3.3 Digital Theory
- 3.4 Analogue vs Digital
- 3.5 Uplink Process Overview
- 3.6 Compression and Digital Encoding
- 3.7 Modulation Theory
- 3.8 Forward Error Correction (FEC)
- 3.9 More on Modulation

### Module 4: System Principles Overview Part 2

- 4.0 Introduction
- 4.1 Modulation Recap
- 4.2 Upconversion
- 4.3 Amplifier
- 4.4 Phase Combiner
- 4.5 Antenna
- 4.6 Monitoring
- 4.7 Communications
- 4.8 Uplink Process Activity
- 4.9 The Downlink
- 4.10 The Downlink Principles
- 4.11 Downlink Process Activity

### Module 5: Working with a Satellite

- 5.0 Introduction
- 5.1 Frequency Parameters
- 5.2 Spectrum Analyzer
- 5.3 Locating the Satellite
- 5.4 Carriers, Modulation, and Polarization
- 5.5 Interference
- 5.6 Link Budgets

### Module 6: Accessing a Satellite

- 6.0 Introduction
- 6.1 Control Centers
- 6.2 Accessing the Satellite
- 6.3 Universal Access Procedure (UAP)
- 6.4 "Talk-Up" and "Talk-Down" Procedure
- 6.5 "Talk-Up" and "Talk-Down" Activity

### Module 7: Site Surveys and Safety

- 7.0 Introduction
- 7.1 Site Surveys
- 7.2 Things to Look For
- 7.3 Site Survey Checklist
- 7.4 Hazards
- 7.5 Primary Hazards
- 7.6 Secondary Hazards

### Final Assessment

Random selection of over 50 questions (requires an attempt at each of the Self-Checks at the end of each module), and an overall score greater than 80% to qualify.

**Price: US\$595 excl. tax per seat**  
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