In this course, you will gain the knowledge and skills required to survey a potential site for an O3b Tier-2 fixed terminal. You will learn how to use the included Windows app to plan compact multi-antenna arrangements with a clear line of sight to the O3b arc. You will also learn how to use the included O3b Line of Sight mobile app, prepare for the site visit, fill out the survey report, plan the IFL run, and report site details critical for a successful system installation. This course also includes all the forms that must be completed and submitted to O3b after a survey, as well as access to specially-developed smartphone and Windows apps.

**The Antenna Arrangement Planner** analyzes close-in 3D antenna and fence placement for mutual beam obstructions. It is available to current O3b 733 students within the online course and as a standalone Windows app.

**The O3b Line-Of-Sight app** overlays the O3b satellite arc on the smartphone’s camera view and an azimuth-elevation grid. Surveyors use it to identify distant obstructions and to prepare the survey report for submission to O3b. It is available to current O3b 733 students and may be installed on Android and iOS devices.

The interactive voltmeter simulator helps students understand and practice important AC voltage measurements, such as live-to-protective-earth.
SUMMARY: Necessary knowledge for completing the required site survey form, preparing for the site visit, and using the provided companion apps.

CONTENTS:

1. Preparing for the site survey. Introduces the students to O3b Networks’ statement of work, tasking order, and the Survey Report.

2. Antenna Placement. Introduces concepts of longitude, latitude, azimuth, and elevation, as well as line of sight and the O3b arc. How to use the O3b Line-of-Sight app and the Antenna Arrangement Planner.

3. IFL. The importance of IFL cable measurements, how to determine IFL cable routing indoors and outdoor, and cable entry points into the equipment shelter.

4. Power and grounding. Concepts of power stability, power measurement, and backup power evaluation.

5. Equipment placement and connectivity. What to look for in the equipment facilities, how to sketch equipment rack placement, and determining availability of OOB connectivity.

6. General site details. Site access, building permits, and equipment delivery facilities.

7. Submitting the survey report. Which documents must be filled out and submitted, and how to submit the completed report along with site photos.

8. Manual line-of-sight analysis. Learn how to do the O3b fixed terminal site survey in the event you are not able to use the O3b Line of Sight app or the Antenna Arrangement Planner.

PREREQUISITES: O3b731 and individual prior approval by O3b Networks. O3b Networks reserves the right to limit access only to students who are from existing O3b customers, potential customers, service partners, SES or O3b employees, or O3b contractors.

DURATION: Approx. 80 pages, requiring 2-5 hours study.

DELIVERY: Animated & interactive HTML/Flash, self-paced, on-line format. Requires Internet access while studying the course material. High speed access is preferred but is NOT required. Student’s computer must have a current browser and the current version of the Adobe Flash player (free) installed.

LEARNING OBJECTIVES: Upon completion of this course, students will have gained the confidence and knowledge needed in completing the required site survey form, preparing for the site visit, using the provided apps to identify antenna locations with a clear line of site to the O3b arc, planning the IFL run, analyzing the existing power system, and selecting the best location for indoor equipment.

TEST: Each lesson contains a mandatory quiz; some lessons may also contain simulator-based skill assessments. All pages must be viewed and all quizzes and simulator tests must be passed in order to complete the course.

REFERENCE MATERIALS INCLUDED: Quick Reference Guide for field engineers; O3b Tier-2 Site Survey Form; O3b Tier-2 Site Preparation Guide.

COMPANION APPS INCLUDED: Includes standalone mobile and windows applications for use in the field to help prepare site survey reports according to O3b standards. The app will fully function only if the user maintains a current, unexpired enrolment in O3b 733, or has previously enrolled in O3b 733 and holds a current GVF Knowledge Center Subscription.