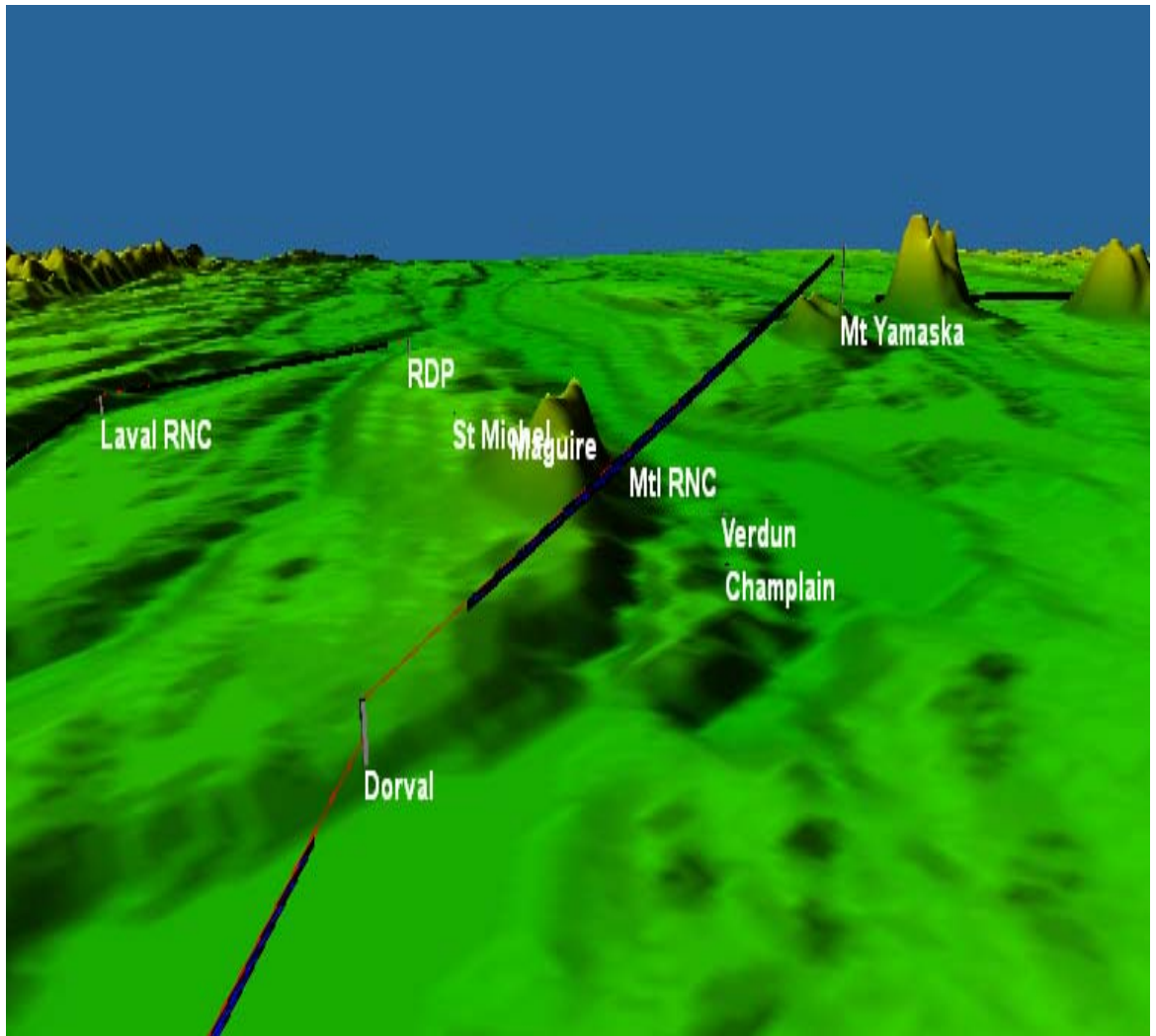


Pathloss 5 Training



ONLINE TRAINING
PATHLOSS 5 MICROWAVE & COVERAGE THEORY
2 training sessions

**FOR MORE
INFORMATION**

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PATHLOSS

RF communication network design can be a complex and sometimes daunting task. Fortunately, engineers and technicians working on RF network planning can use software tools such as Pathloss to ensure a methodical and thorough approach to their task.

The Pathloss program is a state-of-the-art comprehensive path design tool for networks operating in the frequency range from 30 MHz to 100 GHz.

Designed for use throughout the world with diverse equipment and wide-ranging atmospheric conditions, Pathloss uses a variety of terrain and clutter databases, equipment files and local weather files.

The program is organized into modules, covering all aspects of microwave communication network design. These include five path design modules. The network module, which integrates the radio paths and several operations that can be performed on a given network including: interference analysis, automatic link generation and design, PTMP design, and local and area coverage studies.

OBJECTIVES

The goal of this module is to create a solid background of knowledge in the field of microwave and coverage theory, covering topics such as the basics of RF communications systems, propagation, RF design methods and procedures, and VHF-UHF Coverage. The topics covered will have a direct link to the subjects and tools discussed during the Pathloss 5 software operation Sessions.

Below, you will find a daily description of the topics that would be covered during this training.

SCHEDULE & PRE-REQUISITES

Two sessions via Zoom online platform. Each session will last approximately 3 hours. This is an optional training module for anyone taking either the PTP, PTMP & Coverage, or the whole Pathloss 5 training modules. There are no pre-requisites to this training module

TOPICS COVERED

SESSION 1

- **Systems and components**
 - + Network Configuration
 - + Site Layout
 - + Radios & Antenna Equipment
 - + Cables and connectors

- **Propagation**
 - + Free Space Loss
 - + Fresnel Zone
 - + K factor
 - + Clearance Criteria
 - + Reflections
 - + Diffraction
 - + Rain
 - + Multipath reliability models and calculations
 - + Interference Calculations

SESSION 2

- **Propagation– Cont'd**
 - + Free Space Loss
 - + Fresnel Zone
 - + K factor
 - + Clearance Criteria
 - + Reflections
 - + Diffraction
 - + Rain
 - + Multipath reliability models and calculations
 - + Interference Calculations

- **VHF-UHF Coverage**
 - + Signal Level calculation
 - + Location variability
 - + Time Variability

- **RF Design Methods and Procedures**