



MANET TRAINING OVERVIEW



TECHNOLOGY FOR EXTREME ENVIRONMENTS



COMPUTING



BATTERIES



COMMUNICATIONS



ANTENNAS



IMAGING

OFFICIAL-SENSITIVE



MOBILE AD-HOC NETWORKING ADMINISTRATOR COURSE (MAC)

30 HOURS

Course Overview

The MAC course is a four-day course focused on the entire range of Mobile Ad-hoc Network (MANET) administration skills using Wave Relay® and the Man Portable Unit 5 (MPU5) radio. The course is comprised of lectures and practical exercises designed to reinforce concepts taught throughout the week by a Wave Relay subject matter expert (SME). It is primarily designed for users who are responsible for network administration and implementation of the MPU5 and Wave Relay®.

The course is designed to provide users with the ability to successfully design, configure, deploy, operate and maintain a functioning Wave Relay® MANET solution.

The course covers a broad section of the Wave Relay® capabilities and includes fundamentals such as Radio Frequency (RF) and Internet Protocol (IP) addressing basics, whilst addressing the key components of security and network topologies.

The course can accommodate up to a maximum of 12 students. Steatite will provide all equipment for the duration of the course to allow students to administer the MPU5s and create a network. The course will be run at Steatite HQ in Redditch.

Learning Objectives

- 📄 Configure a laptop, MPU5 and other network nodes into a LAN.
- 📄 Introduction to MPU5 Hardware and Ancillaries.
- 📄 Understanding of IP Addressing and Networking.
- 📄 MPU5 radio parameters.
- 📄 Mass configuration of network settings and firmware upgrades.
- 📄 Encoding and decoding video using an external video source.
- 📄 Initialising MANET network nodes through our network visualisation.
- 📄 Configuring PTT and Radio over IP (RoIP) talk groups on the MANET.
- 📄 Proficiency using the Persistent Systems Dual Channel PTT device.
- 📄 Setup an End User Device (EUD) and tethering it to a MPU5 (RDC and TE Phone)
- 📄 Use an EUD to chat with other users on the Android Team Awareness Kit – Civilian/Android Tactical Assault Kit – Military (ATAK)
- 📄 Subscribe to a video feed on ATAK.
- 📄 Access the MPU5's native Android and installing applications.
- 📄 Configure and activate at least 2 video streams via Kiosk Mode.
- 📄 Overall understanding of RF theory and antenna selection based on network topology.
- 📄 Calculating link budget for nodes in a network.
- 📄 Troubleshooting and Equipment Care.
- 📄 Best practices for MANET network design

