

# Coordination Guidelines For Low Power, Low Height Systems In the 420-450 MHz Band

## Introduction

This guideline applies to the coordination of low power, limited height, analog and digital repeater systems in the 420-450 MHz band. This guideline provides options to permit closer spacing of repeaters in the 70 cm band by establishing physical and technical limits on the installation.

## Issue

With the introduction of off-the-shelf digital repeaters with Internet connectivity readily available, many individuals and clubs want to coordinate a repeater pair for local use. No pairs are available in some areas and are rapidly being depleted in others.

## Shared Channels

Three shared channels will be set aside state-wide. They are:

442.5250 MHz

442.6250 MHz

442.6500 MHz

## System Configurations

In order to close space repeaters in the shared channels with minimal interference, the following system parameters will apply:

1. **Mileage separation:** Low power repeaters will be coordinated with a 40 mile separation (20 mile radius).
2. **RF output:** Repeater will be restricted to 50 watts output as measured at the transmitter antenna connector...no amplifiers will be permitted.
3. **Antenna height:** The base of the antenna will be restricted to a maximum height of 25 feet above the ground...not from any supporting structure such as a house or tower.
4. **Access:** Each repeater will be coordinated with, and required to use an assigned CTCSS, DCS or other Selected Access protocol as available on the type of repeater in use.