Long Tone Zero & Wilderness Protocols

Mutual Assistance Procedures for VHF/UHF FM

Brief overview for ARRL Repeater Directory

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Introduction

One of the great features of Amateur Radio is it gives hams the ability to provide mutual assistance to one another. There are two common procedures currently in place for mutual assistance on VHF/UHF FM frequencies. The first is "LiTZ", a DTMF (Touch-Tone) based all-call priority alerting system. The second is the "Wilderness Protocols".

LiTZ (i-added to make it easier to pronounce).

LiTZ is a simple method to indicate to others on an amateur VHF/UHF FM radio channel that you have an immediate need to communicate with someone, anyone, regarding a priority situation or condition.

LiTZ stands for LONG TONE ZERO. The LiTZ signal consists of transmitting DTMF (Touch-Tone) ZERO for at least 3 seconds. After sending the LiTZ signal the operator announces by voice the kind of assistance that is needed. For example: (5-seconds-DTMF-zero) "This is KA7BCD. I'm on Interstate 5 between mile posts 154 and 155. There's a 3 car auto accident in the southbound lane. Traffic has been completely blocked. It looks like paramedics will be needed for victims. Please respond if you can contact authorities for help. This is KA7BCD.

If your situation does not involve safety of life or property, try giving a general voice call before using LiTZ. Use LiTZ only when your voice calls go unanswered or the people who respond can't help you.

When you see the notation "LiTZ" for a repeater in this directory that means that it's highly likely that someone will receive and respond to LiTZ signals transmitted on the input frequency of the repeater. Please note, however, that if a CTCSS tone is needed to access that repeater you should transmit that CTCSS tone along with your LiTZ signal.

The type and nature of calls that justify the use of LiTZ may vary from repeater to repeater, just as other uses vary. Here are some general guidelines that may be suitable for most repeaters and simplex calling channels.

LiTZ OVERVIEW

	Waking Hours	Sleeping Hours
Event/Situation	No	No
Calling CQ	No	No
Calling a buddy	No	No
Weekly Test of LiTZ	Yes	No
Club Message	Yes	No
Need Driving Directions	Yes	No
Report Drunk Driver *	Yes	Yes
Car Break Down *	Yes	Yes
Safety of Life or Property *	Yes	Yes

Wilderness Protocol

The Wilderness Protocol is a suggestion that those outside of repeater range should monitor standard simplex channels at specific times in case others have priority calls. The primary frequency is 146.52 MHz with 52.525, 223.5 446.0 and 1294.5 MHz serving as secondary frequencies. This system was conceived to facilitate communications between hams that were hiking or backpacking in uninhabited areas, outside repeater range. However, the Wilderness Protocol should not be viewed as something just for hikers. It can (and should) be used by everyone anywhere repeater coverage is unavailable. The protocol only becomes effective when many people use it.

The Wilderness Protocol recommends that those stations able to do so should monitor the primary (and secondary, if possible) frequency every three hours starting at 7 AM, local time, for 5 minutes (7:00-7:05 AM, 10:00-10:05 AM, ..., 10:00-10:05 PM). Additionally, those stations that have sufficient power resources should monitor for 5 minutes starting at the top of every hour, or even continuously.

Priority transmissions should begin with the LiTZ signal. CQ-like calls (to see who is out there) should not take place until four minutes after the hour.

For more information on the Wilderness Protocol refer to QST (Feb. 95, page 100; Apr. 94, page 109; May 94, pages 103 - 104.).