This report provides current information on this state of the WyoLink public safety radio Project and answers questions that are of common interest.

TOPICS IN THIS REPORT:

A. WyoLink's First Radio Site Activated

On Tuesday, July 19, WyoLink's first radio site was optimized and is now on the air. The 85-South site is located south of Cheyenne near the Colorado border. The site provides mobile radio coverage in the Cheyenne area as well as some portable radio coverage in the Cheyenne area. As the WyoLink master site is not yet active full system features are not yet demonstrable. With this first site on the air we are able to demonstrate basic trunked radio operation. Work is progressing and other sites will soon be activated.

B. Scanning Answers

A number of inquiries have been received asking how scanning will function on the WyoLink system. The simple answer is that WyoLink subscriber radios will be capable of scanning in much the same fashion that conventional radios scan. Verification of the scanning functions was part of the Factory Staging acceptance test plans.

Here are some important things to remember about scanning:

- You will need permission from the owner before talk-groups that belong to another agency will be programmed into your radio. It is possible to program talk-groups as "receive only," and some agencies may be more willing to grant permission on that basis.

- Priority-Scan is the recommended mode. In priority scan the radio will stop scanning and return to the priority talk-group (typically your dispatcher) anytime there is activity on the priority talk-group. This prevents missing important messages. In non-priority scan it is possible to miss important activity if the radio is tied up listening to activity on other talk-groups or conventional channels.
• You cannot scan talk-groups that are not active in your area. When a user radio registers with a given radio site it tells the control system which talk-group is selected. This is how the trunked radio system knows that it needs to assign a frequency to that talk-group at that radio site when there is a call. When scanning, the radio does not register the talk-group at the radio site. Thus, if no other user has registered the talk-group at the radio site the talk-group will not be broadcast from that site and will not be heard by someone using scan.

In summary, scanning on the WyoLink trunked radio system will function in the same way that scanning on a conventional radio system functions today. Priority scan will still be available. Only signals being broadcast by local radio sites will be available to scan. The only difference is that permission will be required from the agency that owns the talk-group, and if the talk-group is encrypted scanning it will be pointless.

C. Changing Terminology
The other subject that has prompted a number of questions deals with the changing terminology used in discussing the WyoLink trunked radio system. Here are some brief definitions:

• Frequency: This is the actual radio frequency used by the radio. In a trunked radio system each radio at a site is a repeater using two frequencies, and input and output. In a trunked radio system the user never changes the frequency of their radio; the control system does that automatically.

• Channel: This term is used rather generally to denote a communications path or mode. It is an older term and is often used interchangeably with "frequency," "mode," or "talk-group." This is why it can be confusing and imprecise. In the discussion of trunked radio systems "channel" typically refers to the individual transceivers at radio site, as in “control channel” or “talk channel.”

• Mode: This is a newer term and is used to denote the different configurations in which a user radio may operate. For example, two different modes may use the same radio channel with one mode using encryption while the other does not. The term mode has been adopted because it signifies a broader range of variables that can be programmed in a radio.

• Channels & Groups: When a user radio is programmed with a large number of modes, those modes are accessed by the user in two ways: (1) The knob, which typically accesses 16 modes, and (2) either a three positions switch or up/down buttons and a display. A large number of modes can be organized into a series of groups.

• Talk-Group: This term is used to denote the channels in a trunked radio system. This term is sharply distinct from "frequency," as the radio user never actually changes the frequency. The trunked radio controller will automatically configure the system so that all radio users that have selected a given talk-group may communicate with one another. Unlike a radio frequency, a talk-group does not really exist but is a virtual-channel, like an e-mail address.