Interference Myth NOT Busted

Story by John Barkhausen

Have you ever been told to put your phone away when you go into the backcountry? And, that if you don't, it will interfere with your transceiver and make it much harder to find you? Have you ever wondered what that means exactly, and whether or not it's true?

Well, I wondered, and it turns out that, yes, phones and other small electronics have a great effect on avalanche transceivers. I studied this in a recent research project and presented the findings at the 2012 ISSW this fall in Anchorage, Alaska. It was a simple project, aimed at helping practitioners combat the effect that interference can have on a transceiver search.

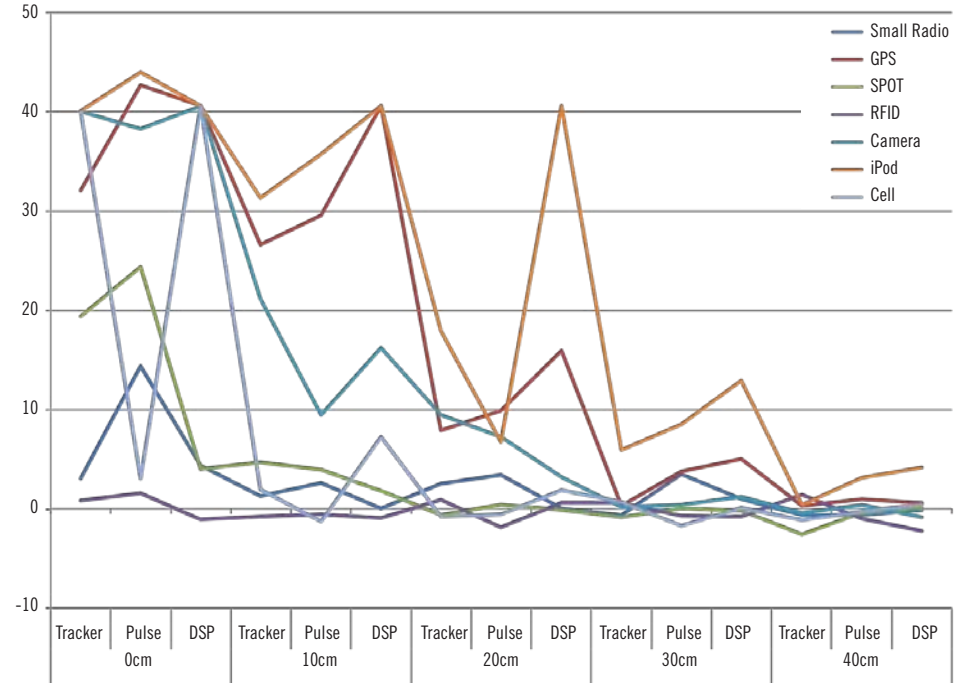
The basic results are that these devices have very little effect on a signal when placed near a transmitting transceiver, or near what would be the victim's transceiver. But, when placed near a searching transceiver, the effect can be catastrophic. I tested signal interference using cell phones, iPods, GPS units, SPOT locators, digital cameras, and a few smaller items. I found that when held close enough to the searching transceiver, these devices reduced the effective range of that transceiver. If the effective range of a transceiver is less than the assumed range, or normal range, of a transceiver, then there is the potential of leaving large amounts of area un-searched.

But, there is good news that came out of this research. It appears that the threshold of how close these interfering devices need to be in order to have an effect is very low. If you hold the interfering device at least 40cm away from the searching transceiver, then the interference is essentially gone. Luckily, 40cm is a little less than a typical arm length, so to get rid of any perceived interference all you need to do is hold your searching transceiver a full arm's length from your body.

Listen to what those avalanche instructors have been telling us for years, and keep the phone off and away while traveling in avalanche terrain. We now know what to do if we come across a weird signal, or if we wear things like search and rescue radios, but just like with avalanches, the best plan A is avoidance, and everything else is a plan B.

John recently made the leap from student to instructor for Prescott College's Adventure Education program. He presented this research at his first ISSW this fall in Anchorage.

Comparison Chart: All Beacons and Interferers



As interfering devices are moved farther from the searching transceiver, the level of interference decreases and the range comes closer to normal. This magnitude was calculated by subtracting the perceived range caused by interference from the normal range.