

## Configuring Pacific Crest Radios for Narrowbanding

The US FCC's "narrowbanding" requirements in effect on 1 January 2013 will allow data transmission at any speed in 12.5 kHz channels and at 19200 bps in 25 kHz channels. If you currently have a valid license, you do not have to contact the FCC until you need to renew or modify that license. However, the narrowbanding requirement that goes into effect on 1/1/13 will supersede any license and require transmission either in 12.5 kHz channels at any speed or in 25 kHz channels at 19200 bps.

Use the tables below to see how you can legally transmit in the US with Pacific Crest, Trimble, Spectra Precision and Ashtech brand radios. Remember that transmitters and receivers must be configured identically. Please use the tables below to find protocols and link rates that are shared by the radios you will use. In general, 25 kHz radios can receive data from 12.5 kHz transmitters as long as the protocol and link rate are identical.

### Licensable Modes of Transmission - Pacific Crest UHF Radios

| <b>PDL Radios (HPB, LPB, Rover, GFU15)</b><br>Support either 12.5 or 25 kHz channels | Legal Link Rate/Channel<br>Bandwidth Modes |               |
|--|--|---------------|
| <b>Protocol</b>  | <b>12.5 kHz</b>                            | <b>25 kHz</b> |
| TRIMTALK 450s  | 4800                                       | n/a           |
| TRIMMARK II/IIe  | 4800                                       | n/a           |
| Transparent EOT, EOC and Packet Switched   | 4800                                       | n/a           |

| <b>EDL II, Sitecom</b><br>Support either 12.5 or 25 kHz channels | Legal Link Rate/Channel<br>Bandwidth Modes |               |
|--|--|---------------|
| <b>Protocol</b>  | <b>12.5 kHz</b>                            | <b>25 kHz</b> |
| TRIMTALK 450s  | 4800                                       | n/a           |
| TRIMMARK II/IIe  | 4800                                       | n/a           |
| Transparent EOT, EOC and Packet Switched                         | 4800                                       | n/a           |

| <b>ADL Radios (Vantage, Sentry, Vantage Pro, SLR3)</b><br>Support both 12.5 and 25 kHz channels | Legal Link Rate/Channel<br>Bandwidth Modes |               |
|---|--|---------------|
| <b>Protocol</b>   | <b>12.5 kHz</b>                            | <b>25 kHz</b> |
| TRIMTALK 450s   | 4800, 8000                                 | n/a           |
| TRIMMARK II/IIe   | 4800                                       | n/a           |
| TT450S (HW)   | 4800                                       | n/a           |
| TRIMMARK 3  | 9600                                       | 19200         |
| Transparent EOT, EOC and Packet Switched  | 4800                                       | n/a           |
| Transparent FST   | 9600                                       | 19200         |
| SATEL   | 9600                                       | 19200         |

**Licensable Modes of Transmission - Trimble UHF Radios**

| <b>TRIMMARK 3</b><br>Supports either 12.5 <u>or</u> 25 kHz channels | Legal Link Rate/Channel Bandwidth Modes |               |
|---|---|---------------|
| <b>Protocol</b>   | <b>12.5 kHz</b>                         | <b>25 kHz</b> |
| TRIMTALK 450s   | 4800, 8000                              | n/a           |
| TRIMMARK II/IIe   | 4800                                    | n/a           |
| TT450S (HW)   | 4800                                    | n/a           |
| TRIMMARK 3  | 9600                                    | 19200         |

| <b>HPB450, PDL450, PDL450 Fixed</b><br>Support either 12.5 <u>or</u> 25 kHz channels | Legal Link Rate/Channel Bandwidth Modes |               |
|--|---|---------------|
| <b>Protocol</b>  | <b>12.5 kHz</b>                         | <b>25 kHz</b> |
| TRIMTALK 450s  | 4800                                    | n/a           |
| Transparent EOT, EOC and Packet Switched   | 4800                                    | n/a           |

| <b>TNL450i (5800, R6, R8 Internal Radio)</b><br>Supports both 12.5 <u>and</u> 25 kHz channels | Legal Link Rate/Channel Bandwidth Modes |               |
|---|---|---------------|
| <b>Protocol</b>   | <b>12.5 kHz</b>                         | <b>25 kHz</b> |
| TRIMTALK 450s   | 4800, 8000                              | n/a           |
| TRIMMARK II/IIe   | 4800                                    | n/a           |
| TRIMMARK 3  | 9600                                    | 19200         |

| <b>TDL 450L, TDL 450H, TDL 450i</b><br>Support both 12.5 <u>and</u> 25 kHz channels | Legal Link Rate/Channel Bandwidth Modes |               |
|---|---|---------------|
| <b>Protocol</b>   | <b>12.5 kHz</b>                         | <b>25 kHz</b> |
| TRIMTALK 450s   | 4800, 8000                              | n/a           |
| TRIMMARK II/IIe   | 4800                                    | n/a           |
| TT450S (HW)   | 4800                                    | n/a           |
| TRIMMARK 3  | 9600                                    | 19200         |
| Transparent EOT, EOC and Packet Switched  | 4800                                    | n/a           |
| Transparent FST   | 9600                                    | 19200         |
| SATEL   | 9600                                    | 19200         |

**Licensable Modes of Transmission - Spectra/Ashtech Internal UHF Radios**

| <b>Epoch 25, Epoch 35</b><br>Support either 12.5 <u>or</u> 25 kHz channels | Legal Link Rate/Channel Bandwidth Modes |               |
|--|---|---------------|
| <b>Protocol</b>  | <b>12.5 kHz</b>                         | <b>25 kHz</b> |
| TRIMTALK 450s  | 4800                                    | n/a           |
| Transparent EOT, EOC and Packet Switched                                   | 4800                                    | n/a           |

| <b>Epoch 50</b><br>Supports both 12.5 <u>and</u> 25 kHz channels | Legal Link Rate/Channel Bandwidth Modes |               |
|--|---|---------------|
| <b>Protocol</b>  | <b>12.5 kHz</b>                         | <b>25 kHz</b> |
| TRIMTALK 450s  | 4800, 8000                              | n/a           |
| TRIMMARK II/IIe  | 4800                                    | n/a           |
| TT450S (HW)  | 4800                                    | n/a           |
| TRIMMARK 3   | 9600                                    | 19200         |
| Transparent EOT, EOC and Packet Switched                         | 4800                                    | n/a           |
| Transparent FST  | 9600                                    | 19200         |
| SATEL  | 9600                                    | 19200         |

| <b>ProFlex 500</b><br>Supports either 12.5 <u>or</u> 25 kHz channels | Legal Link Rate/Channel Bandwidth Modes |               |
|--|---|---------------|
| <b>Protocol</b>  | <b>12.5 kHz</b>                         | <b>25 kHz</b> |
| TRIMTALK 450s  | 4800                                    | n/a           |
| Transparent EOT, EOC and Packet Switched                             | 4800                                    | n/a           |

| <b>ProMark 800, ProFlex 800, HDS 800</b><br>Support both 12.5 <u>and</u> 25 kHz channels | Legal Link Rate/Channel Bandwidth Modes |               |
|--|---|---------------|
| <b>Protocol</b>  | <b>12.5 kHz</b>                         | <b>25 kHz</b> |
| TRIMTALK 450s  | 4800, 8000                              | n/a           |
| TRIMMARK II/IIe  | 4800                                    | n/a           |
| TT450S (HW)  | 4800                                    | n/a           |
| TRIMMARK 3   | 9600                                    | 19200         |
| Transparent EOT, EOC and Packet Switched   | 4800                                    | n/a           |
| Transparent FST  | 9600                                    | 19200         |
| SATEL  | 9600                                    | 19200         |