Transceiver Receive and Transmit Functions

Notes taken from Dave Casler's (KEOG) video "Uses of Pre-Amp, Attenuation, Notch, Noise Blanker, Noise Reduction, and IP+ ? (#622)" on YouTube. A link to that video is at the end of this document. The presentation is based on an iCom-7300, lower SSB on 40 Meters.

Receive Functions

Pre-Amp
- Pre-amp is normally off on 160 thru 15 meters.
- Pre-amp on for bands below 15 meters.
- Pre-amp increases the signal BUT also adds noise.

Attenuator
- Used when there is a problem noise source near the location of the transceiver.
- Strong signals nearby.

Automatic Gain Control (AGC)
- It can be slow, fast, or medium.
- Use slow for SSB.
- Use medium for general use.
- Purpose: Automatically changes the volume so different signals sound about the same.

RF Gain
- The same thing can be done with the RF Gain control.
- Turning the RF Gain control down turns down the audio volume.

Notch Filter
- Removes single carriers in the signal. This is important when needing to reject a nearby signal.
- Because transceivers have improved so much, the Notch Filter probably won't do much for you.
- Helps eliminate carrier signal.

Noise Blanker
- NB on the iCom-7300.
- Noise Blanker: Level, Depth, Width.
- The noise blanker eliminates pulse noise or ignition noise.
- Effective in eliminating over the horizon radar signals.

Noise Reduction

- Can adjust the level of noise reduction by holding down the NR button.
- Very useful and Casler normally leaves it on.

IP+

- Introduces a dither in the received signal to make it heard better.
- Intercept Point Plus.
- For most uses, it is not going to do you much good.

Transmit Functions

Compression

- Set the level of compression following the exact instructions in the iCom-7300.
- Casler leaves compression on all the time.

TTW

- Transmit Bandwidth
- Casler leaves it on wide all the time.
- For DX, setting it on narrow concentrates all the signal in a very small area.

Monitor

- MONI on the iCom-7300.
- Allows you to hear yourself over headphones when you are transmitting.
- You can set the amount of level for the monitor.

Video

https://www.youtube.com/watch?v=7CNcigu-G4o&t=370s