Enhanced SSB Audio

…what's it all about and why the controversy

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Don Snodgrass, K4QKY

Introduction

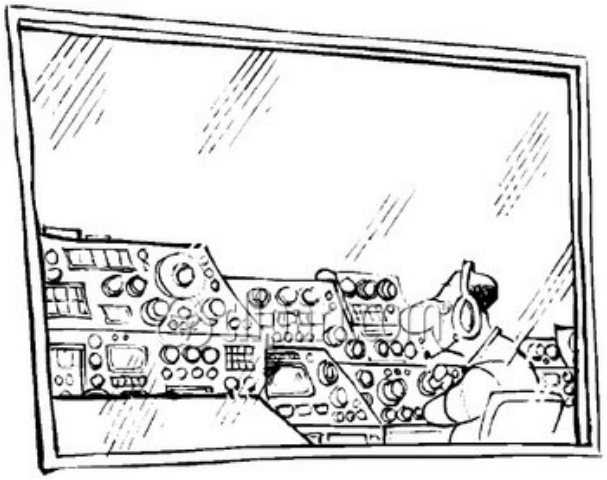
Enhanced SSB audio has gained considerable **popularity**.

- ✓ Studio microphones and external pro audio processing equipment
- ✓ Being incorporated into new equipment design

However, ssb audio experimentation has become somewhat **controversial**.

Overview

- What's enhanced ssb audio
- Why the controversy
- Recommendations for those interested in experimenting with enhanced ssb audio
- Questions?



What constitutes enhanced ssb audio?

Audio processing aimed at balancing the low, mid and high frequencies.

- ✓ **Conventional** ssb primarily emphasizes the mid range and tends to often sound punchy, stringent and ear fatiguing.
  - Narrow range microphones
  - Internal speech processing

    Click to play sound bite
- ✓ **Enhanced** ssb is usually accomplished only with external equipment resulting in a more pleasing, natural and articulate sound.
  - Professional microphones
  - Microphone preamp
  - Equalizer
  - Compressor
  - Effects processor

    click to play sound bite

…Which do you prefer? It's your preference.

Result

Balanced (flat) frequency response from 70 hz to 3.0 khz

Why the controversy?

What's **wrong**

- A few ssb audio experimenters have extended their transmit bandwidth well beyond 3 KHz.
- Some hams who object to change or new ideas have complained to the FCC.
  - The FCC has sent warning letters to three hams.
  - The FCC has also been petitioned to limit transmit bandwidth to 2.8 KHz
    - 190 responses of which only 25 were supportive
- Objection to enhanced ssb seems to be more about personality (ego) clashes and resistance to change/new ideas than anything else.

What's **right**

- Contributes to advancing the state of radio art
- Promotes experimentation
- Encourages better technical understanding and operating practices
  - RFI avoidance, power distribution, microphone proximity, etc.
- More pleasant to listen to
- Provides a special interest reinvigorate the hobby and recruit new hams
- Prepares us for the advent of digital voice communications

ARD9800 Fast Modem

DIGITAL Voice
&
Image interface

Convert your
Analog Transceiver to **Digital**
In One Easy Step !

Use a conventional voice transceiver for digital voice communications, data and images while data and images while you maintain analog capabilities.

http://www.aorja.com/ard9800e.html for additional info

Solving the problem

- Part 97 is vague * on many things including transmit bandwidth. Perhaps it should remain so to foster the continuance of our long and proud tradition of **self-regulation**.
  - Operate at reduced power/narrower bandwidth/no processing especially on crowded bands
  - Be more considerate of each other's operating choices and styles
  - Transmit a clean signal
- We have bigger problems to solve!
  - Intentional interference
  - Foul language
  - Poor operating practices

*** minimum bandwidth and good engineering practice**

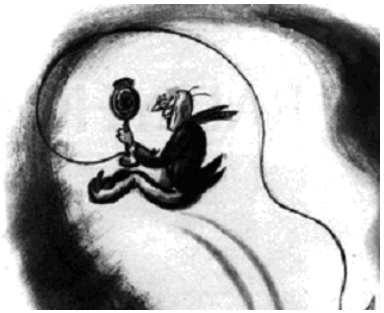
"We should set a proper example to short wave listeners who may hear us"

Want to enhance your ssb audio?

It's not for everyone. However, for those who may be interested, you should first learn more about it:

- ✓ Visit websites
  - http://www.nu9n.com/
  - http://w3oz.netfirms.com/
  - http://pages.prodigy.net/jforgione/k6jrf.html
- ✓ Talk with hams who are experimenting with enhanced ssb

Establish your audio goals and determine your equipment needs.



An example enhanced ssb station

Cost: source: http://www.musiciansfriend.com

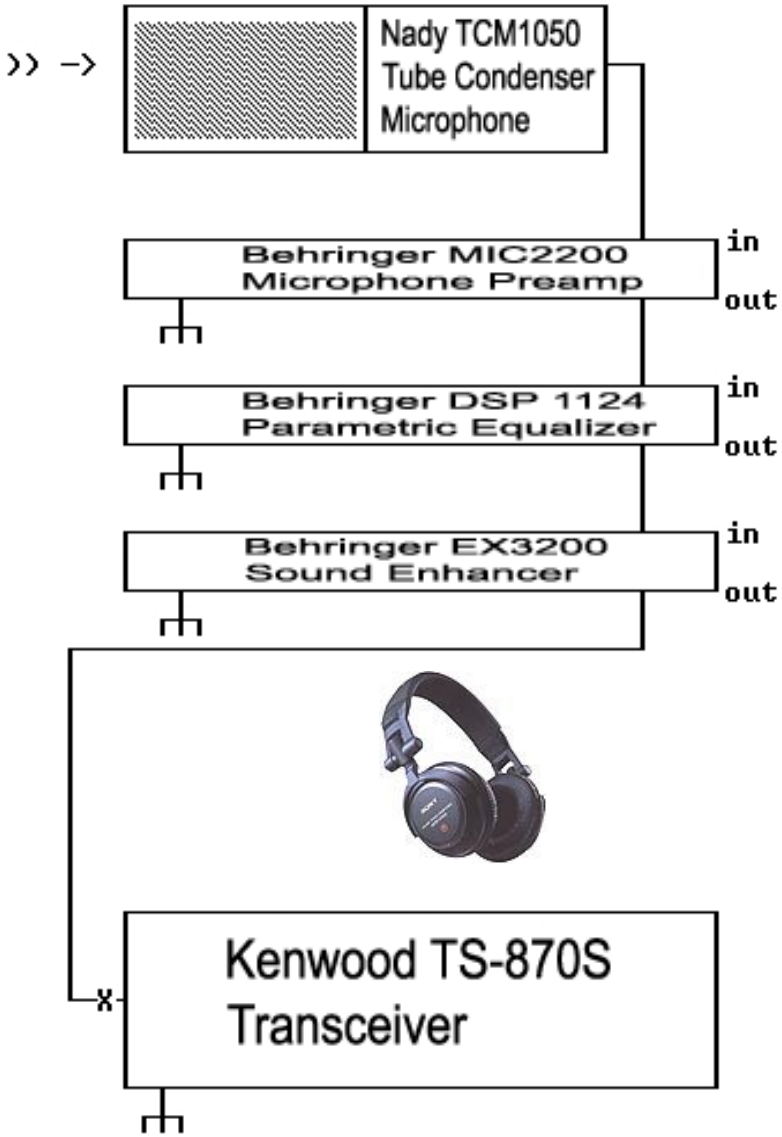
Studio Microphone	$230.00
Preamp	$100.00
EQ	$120.00
Enhancer	$80.00
XLR cables	$50.00

Total (with shipping)
$75

…or go "plug & play" with the W2IHY 8 Band Audio Equalizer and Noise Gate $249.99

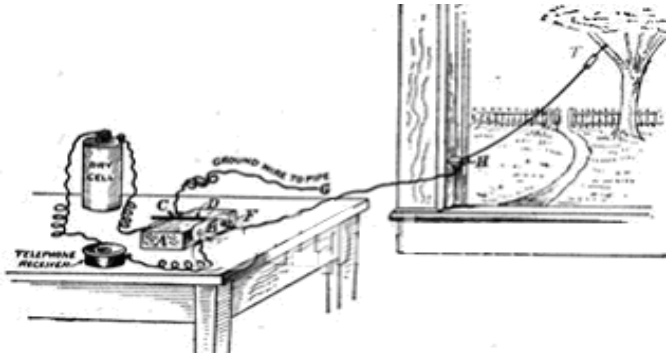
Note: A good wide range microphone **alone** (e.g. Heil Goldline Pro) can significantly improve your audio quality.

K4QKY Audio Chain



Conclusion

Enhanced SSB experimentation is far more than simply spending dollars adding expensive microphones and external audio processing equipment to your shack… it's an attitude of continually seeking new ways to expand communications excellence!



Questions

Don Snodgrass. K4QKY
donsno@charter.net
http://webpages.charter.net/donsno
270-767-9944