

September 25, 2017

Kansas City DX Club Meeting Minutes

Carmack Community Room, Central Resource Library

Overland Park, KS



The September 2017 meeting of the Kansas City DX Club was called to order by President **Jeff Blaine, AC0C** at 6:01 pm CDT (2301 September 25, 2017 UTC).

Agenda -

- Introductions/Greeting
- Announcements
 - Club Elections are coming up
- DXing and Contesting
- Zero Bandwidth Don Reed **K0IFO**
- **AC0C** and **N9GB** updates

Introductions -

As customary, we all introduced ourselves to the group. No guests were identified.

Announcements

- **Upcoming meeting dates:**
 - October – Monday October 30 unless told otherwise
- If you need or you know of someone who needs a ride to our meetings let Jeff know. We would like to make sure everyone who wishes to attend can do so.
- Club officer elections are coming up. Nominations will be in October with elections begin in November and will be open until approximately the last week of December.

DXing and Contesting

DXing for October – discussion led by **Russ, K0VXU**

Based on NG3K website: <http://www.ng3k.com/Misc/adxo.html>

ZC4MK-British Cyprus, VK9XGJ-Christmas Is., H40GCTemotu, A52SJ-Bhutan, and VK9CI Cocos Keeling will be good ones to look for.

Contesting for October – discussion led by **Jeff, AC0C**

Based on WA7BNM website: <http://www.hornucopia.com/contestcal/>

State QSO Parties AZ, PA, NY, SD, IL

Oceania DX Contest, CW, JARTS WW RTTY Contest, Stew Perry Topband Challenge, Worked All Germany might be good ones to try. A big one, CQ Worldwide DX Contest, SSB is the last weekend of October.

Program

Don Reed, **K0IFO** introduced us to the subject of Ultra Narrow Band Modulation (UNB) (Not quite the zero bandwidth modulation promised by Jeff at the start of the meeting).

He said UNB “is an efficient form of transmitting information **without using sidebands**. This modulation format is known as very minimum sideband keying (VMSK) or minimum sideband keying (MSB), and has been in development since 1985. Although stalled for much of this time due to the lack of practical filters, the modulation method is now available to system developers, through the use of modern techniques with zero group delay.”

He went on to show several examples of hardware performing this function. The reduced bandwidth provides up to 40 dB of signal-to-noise ratio improvement while increasing the possibility of higher channel density.

Don has been in contact with Joe Taylor and Harold Walker of Pegasus Data Systems.

Don kindly provided some references for further study if you so desire.

Analyzing Ultra Narrow Band Modulation - Harold Walker Pegasus Data Systems

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.694.3143&rep=rep1&type=pdf>

Ultra Narrow Band Modulation Textbook - Harold Walker Pegasus Data Systems

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.694.2164&rep=rep1&type=pdf>

US Patent 7,424,065 Apparatus and Method for Ultra Narrow Band Wireless Communications - Harold Walker

<http://pdfpiw.uspto.gov/.piw?PageNum=0&docid=07424065&IDKey=869310D9C091%0D%0A&HomeUrl=http%3A%2F%2Fpatft.uspto.gov%2Fnetacgi%2Fnph-Parser%3FSect1%3DPTO1%2526Sect2%3DHITOFF%2526d%3DPALL%2526p%3D1%2526u%3D%25252Fnethtml%25252FPTO%25252Fsrchnum.htm%2526r%3D>

Sidebands are Not Necessary – Harold R. Walker Aug 11, 2011

<http://www.mwrf.com/systems/sidebands-are-not-necessary> Microwaves and RF magazine

Jeff, AC0C, showed more photos of his antenna replacement project and photos of **Greg, N9GB** tower installation.

Charlie, K0THN, reported that early results from the HyGain Trap Vertical repair he wrote about in the September KCDX Club Newsletter were not as positive as he had hoped. The mechanical stability of the trap and the trap tuning is in question. If better information becomes available he will keep us informed.

The next meeting will be Monday, October 30, at 6PM at the JoCo Central Resource Library unless otherwise determined later.

The meeting was followed by the usual tall tale telling and pie eating at Perkins.

Charles Hett, K0THN, KCDX Club Secretary