## UPPER PENINSULA NET NEWS SERVING THE WESTERN **GREAT LAKES**





HAM OF THE MONTH KR8P BRAD HULCE TWIN LAKE MI

### AUGUST 2017

FROM THE EDITOR------BILL, N8NJA bkn8nja@att.net

Wow, August all ready! Time for last minute vacations, back to school, and the U. P. Hamfest in Escanaba. This summer seems to have passed quickly at my house. Still a lot of things I would like to get done before winter gets here, I am hoping for a long fall season.

The big project around here this summer was getting the house painted. I am not doing it, just paying for it. I hired the Student Painters, who I just happened to know the district supervisor for this area since she was about seven years old. They are doing a real great job and should be done by Wednesday. I would recommend them to anyone.

Signals on the band have been typical summer conditions, some good days some bad. Glad the continuous thunder storms have slacked off some. I got real tired of all that static. The bright spot of the summer on the radio is that six meters has been a lot better than last year. Of course I have missed some of the real good sporadic E openings, but can't be there all the time. The cool mornings this week have created some tropo on two meters, so give a listen on the cool mornings.

I hope to see many of you in Escanaba. From the talk I here on the air, it sounds like it is going to be well attended with all the tables sold. So bring your list of wants and needs and have fun!

UPPER PENINSULA NET WEBSITE www. michupnet.com

**NET STATS** 

JUNE 2016 CHECKINS 1015 TRAFFIC 45 JUNE 2017 CHECKINS 1218 TRAFFIC 40 HIGH CHECKINS 29 N8BNC 29 N8NJA 28 KC8ZMN 28 NS8S HIGH TRAFFIC 3 KC8ZMN 3 N8BNC 2 NS8S 2 KC8ZMN

# AUGUST 2017 BIRTHDAYS AND ANNIVERSARIES

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2 W8WOJ & XYL	3	4	5
6	7  KD9TZ & GAIL	8	9 HELEN XYL OF \ WD8PRW \W8IBT DEBBIE	10	11 WASUCS CHUCK	12 KA8IQJ & RUTH
13	14	15	16	17 W8RAE & JOANN	18	19
20 N9QPJ & XYL	21	22	23	24	25	26
27	28  KB8MCR JIM	29  KC8ZMN CHRIS	30	31		

#### **EXAMS**

- 08/01/2017 | Oak Park MI 48237-2085 **Sponsor:** Hazel Park ARC **Location:** Oak Park Community Center **Time:** 7:00 PM (Walk-ins allowed)
- 08/03/2017 | Lansing MI 48911-5322 **Sponsor:** Ingham County VE Group **Location:** Lansing Fire Station #44 (Community Room) **Time:** 7:00 PM (Walk-ins allowed)
  - 08/05/2017 | Muskegon MI 49440-1233 **Sponsor:** Muskegon Area AR Council **Location:** American Red Cross Bldg **Time:** 9:00 AM (Walk-ins allowed)
- 08/05/2017 | Traverse City MI 49686-3103 **Sponsor:** Cherryland ARC **Location:** Traverse City District Library **Time:** 1:00 PM (Walk-ins allowed)
- 08/12/2017 | Ann Arbor MI 48108-1516 **Sponsor:** ARROW Communications Assoc. **Location:** American Red Cross Building **Time:** 9:00 AM (Walk-ins allowed)
  - 08/12/2017 | Midland MI 48640-4474 **Sponsor:** Midland ARC **Location:** Salvation Army Building **Time:** 10:00 AM (Walk-ins allowed)
- 8/12/2017 | Monroe MI 48161-9770 **Sponsor:** W8OTC **Location:** Good Shepherd Church **Time:** 10:00 AM (Walk-ins allowed)
- 08/12/2017 | Port Huron MI 48060-4014 **Sponsor:** Eastern Michigan ARC **Location:** St Clair County Library **Time:** 10:00 AM (Walk-ins allowed)
- 08/14/2017 | Adrian MI 49221-8709 **Sponsor:** Adrian ARC **Location:** Building at Lenawee County Airport **Time:** 7:00 PM (No walk-ins)
- 08/19/2017 | Flint MI 48507 **Sponsor:** The KT8Q & W8ACW VE Teams **Location:** Baker College of Flint-Tech Center **Time:** 9:30 AM (Walk-ins allowed)
  - 08/19/2017 | Ionia MI 48846-8512 Sponsor: ICARPSC Location: Ionia Central Dispatch Time: 6:00 PM (No walk-ins)
- 08/19/2017 | Jackson MI 49201-2230 **Sponsor:** Cascades ARS **Location:** Jackson Carnegie Library **Time:** 10:15 AM (Walk-ins allowed)
- 08/24/2017 | Battle Creek MI 49017-4867 **Sponsor:** SMARS **Location:** Maple United Methodist Church **Time:** 7:00 PM (Walk-ins allowed)
  - 08/24/2017 | Owosso MI 48867-9999 **Sponsor:** Corunna VE Team **Location:** Baker College Welcome Center **Time:** 6:30 PM (Walk-ins allowed)

- 08/26/2017 | South Lyon MI 48178 **Sponsor:** South Lyon Area ARC **Location:** Witch's Hat Depot **Time:** 9:00 AM (Walk-ins allowed)
- 09/03/2017 | Dundee MI 48131-9741 **Sponsor: Location:** DSC **Time:** 6:00 PM (No walk-ins)
- 09/08/2017 | Lansing MI 48911-5322 **Sponsor:** Ingham County VE Group **Location:** Lansing Fire Station #44 (Community Room) **Time:** 11:00 AM (Walk-ins allowed)
- 09/09/2017 | Ann Arbor MI 48108-1516 **Sponsor:** ARROW Communications Assoc. **Location:** American Red Cross Building **Time:** 9:00 AM (Walk-ins allowed)
- 09/09/2017 | Monroe MI 48161-9770 **Sponsor:** W8OTC **Location:** Good Shepherd Church **Time:** 10:00 AM (Walk-ins allowed)
- 09/09/2017 | Negaunee MI 49866 **Sponsor:** Hiawatha ARA **Location:** Marquette Health Dept Bldg **Time:** 8:30 AM (Walk-ins allowed)
- 09/09/2017 | Port Huron MI 48060-4014 **Sponsor:** Eastern Michigan ARC **Location:** St Clair County Library **Time:** 10:00 AM (Walk-ins allowed)

09/09/2017 | Wyandotte MI 48192-9999 **Sponsor:** Motor City Radio Club **Location:** First United Methodist Church **Time:** 9:00 AM (Walk-ins allowed)

#### **HAMFEST**

- 08/05/2017 | UP Hamfest 2017 Location: Escanaba, MI
  Type: ARRL Hamfest Sponsor: Delta County Amateur Radio Society
  Website: http://dcars.org
- 08/12/2017 | Midland ARC Hamfest Location: Midland, MI Type: ARRL Hamfest Sponsor: Midland Amateur Radio Club Website: http://www.w8kea.org

08/13/2017 | Seaway Trunk Swap **Type:** ARRL Hamfest **Sponsor:** Eastern Michigan Amateur Radio Club **Website:** http://qsl.net/ke8bit/

08/19/2017 | Alpena SWAP 2017 Location: Alpena, MI

Type: ARRL Hamfest Sponsor: Thunder Bay Amateur Radio Club

Website: http://ThunderBayARC.org

09/09/2017 | GRAHamfest Location: Wyoming, MI Type: ARRL Hamfest Sponsor: Grand Rapids Amateur Radio Association Website: http://w8dc.org

#### **NEW DIGITAL MODE FROM K1,JT**

FT8 is designed for situations like multi-hop Es where signals may be weak and fading, openings may be short, and you want fast completion of reliable, confirmable QSOs.

Important characteristics of FT8:

- T/R sequence length: 15 s
- Message length: 75 bits + 12-bit CRC
- FEC code: LDPC(174,87)
- Modulation: 8-FSK, keying rate = tone spacing = 5.86 Hz
- Waveform: Continuous phase, constant envelope
- Occupied bandwidth: 47 Hz
- Synchronization: three 7×7 Costas arrays (start, middle, end of Tx)
- Transmission duration: 79\*2048/12000 = 13.48 s
- Decoding threshold: -20 dB (perhaps -24 dB with AP decoding, TBD)
- Operational behavior: similar to HF usage of JT9, JT65
- Multi-decoder: finds and decodes all FT8 signals in passband
- Auto-sequencing after manual start of QSO

\*Comparison with slow modes JT9, JT65, QRA64:\* FT8 is a few dB less sensitive but allows completion of QSOs four times faster. Bandwidth is greater than JT9, but about 1/4 of JT65A and less than 1/2 QRA64.

\*Comparison with fast modes JT9E-H:\* FT8 is significantly more sensitive, has much smaller bandwidth, uses the vertical waterfall, and offers multi-decoding over the full displayed passband.

\*Still to come, not yet implemented: We plan to implement signal subtraction, two-pass decoding, and use of "a priori" (already known) information as it accumulates during a QSO.

Three extra bits are available in the message payload, with uses yet to be defined. We have in mind special message formats that might be used in contests, and the like. Your considered suggestions for use of these bits are very welcome!

K1JT, K9AN, and G4WJS have conducted on-the-air tests of FT8 with excellent results. We're now at a stage where tests under a wider range of conditions are desirable. If you can build WSJT-X from source code revision r7750 or later, and would like to help, please do so and report your results to us! Pre-built installation packages will be made available after further testing is completed.

Suggestions for FT8 setup and examples of use can be found in a screen shot posted here: http://physics.princeton.edu/pulsar/k1jt/ft8.png

We look forward to receiving your feedback.

This is the Radiowavz Scout antenna, 20 thru 10 meters, each arm is 6 ft. weighs about 10 pounds.

Mike KE8IL



THIS ANTENNA WILL SOON BE IN A DIFFERENT TRIPOD ON TOP OF MIKES GARAGE. THIS IS AN OM,NI DIRECTIONAL ANTENNA



THIS IS ANOTHER VIEW OF THE SCOUT ANTENNA THAT WILL SOON BE IN USE AT THE SHACK OF MIKE, KE8IL



GREAT USE FOR THAT OLD COMPUTER TOWER



BILL KELSO 133 SIXTH STREET MARION MI 49665