HF Antenna Effectiveness Test

Open to any operator, Rx only no license is necessary

What equipment is needed:

- HF antenna, any HF antenna
- HF radio
- PC (windows or linux OS) with internet connect
- audio cable (ring/tip/sleeve) or radio/PC interface (Signalink, RigBlaster, DIY...)

What PC software is used:

- "WSJT-X" (if you are currently not using this program, see Attachment A – WSJT-X for install and setup details).
- "NetTime for better time synchronization" other than standard PC time (if you are currently not using this or a similar time synchronization program, see Attachment B – NetTime for install and setup details).

Setup radio and PC:

- Tune radio to 7.0740 MHz, USB
- Connect audio cable (or radio/PC interface) between radio phone/speaker output and PC mike input
- Check that NetTime or similar program is running
- Run WSJT-X and setup as detailed in attachement A – WSJT-X
- Adjust radio volume between 30db to 60db on the WSJT-X input analog scale (lower left area of the main display/operation screen)
- In about 10 minutes check PSKreporter if you are receiving FT8 signals

What will this do:

- Program (WSJT-X) will send over the internet all your received CQ calls to PSKreporter in the cloud. https://pskreporter.info/pskmap.html
- After a delay of about 5 minutes, PSKreporter maps will display your received CQ signals
- Your received signals are available in the "show logbook" on the PSKreporter map screen
- Your received signals can also be down loaded as an ADIF file by clicking "last 24 hr" in the "show logbook" data screen
- Comparing ADIF files between different antennas will show which antenna is receiving the most and greater distance signals
- Note performance is independent of the radio performance since the critical filtering and decoding is done by the same WSJT-X program

The Antenna Effectiveness Test:

- Setup radio, PC and programs
- Operate continuously for 24 hr from the scheduled start time (probably 9 pm)
- After the 24 hr time, PSKreporter has all your received CQ signals. Down load an ADIF file of your "show logbook data". (See Attachment C – PSKreporter for ADIF down load details)
- Email the ADIF file to frickron@aol.com to be compared to other ADIF files.

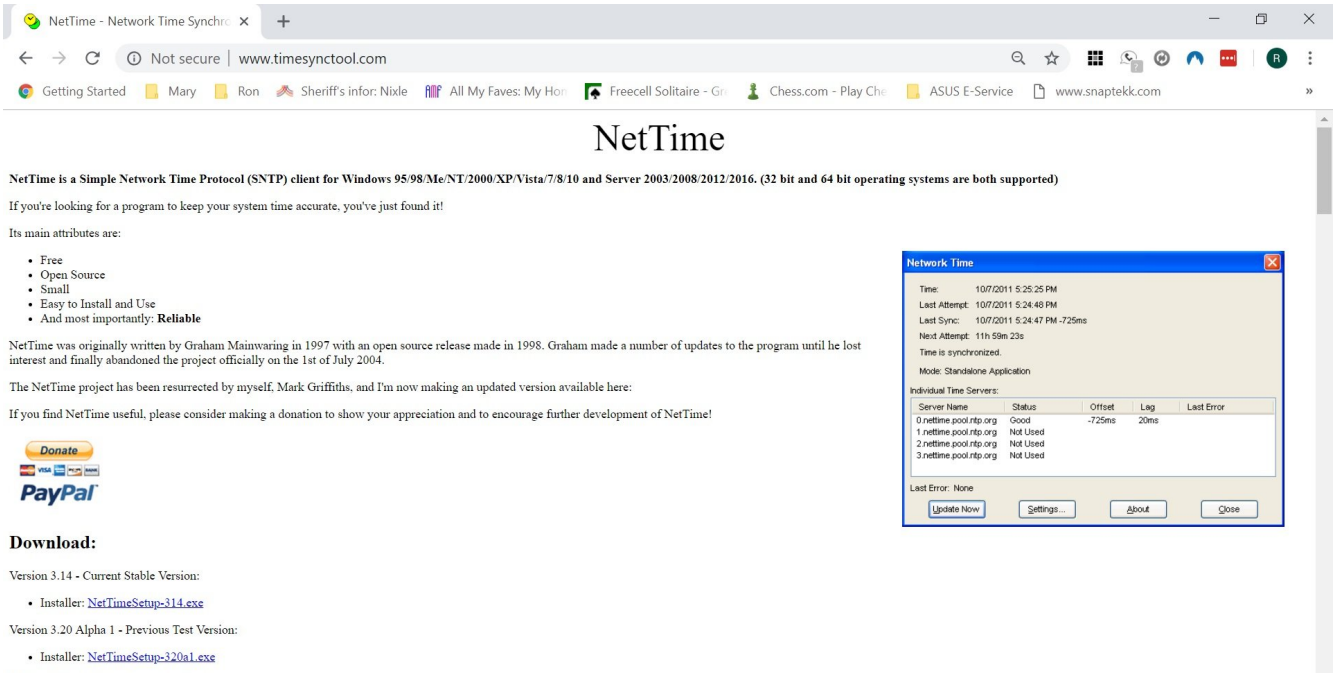
The Rules:

- The first effectiveness test will be 40m (7.074 MHz / USB)
- Contest start date and time TBD
- Operate full 24 hr
- Any data outside the contest window will be eliminated
- Submit ADIF file within 24 hrs after the contest ends

For Attachment A, go to separate file named "Attachment A- WSJT-X install and setup"

Attachment B – NetTime

Install NetTime from http://www.timesynctool.com/ , version 314. See sample below, the down load area is lower left, and use "NetTimesetup-314.exe"



NetTime - Network Time Synchro

Not secure | www.timesynctool.com

Getting Started | Mary | Ron | Sheriff's infor: Nixle | All My Faves: My Hor | Freecell Solitaire - Gr | Chess.com - Play Che | ASUS E-Service | www.snaptekk.com

NetTime

NetTime is a Simple Network Time Protocol (SNTP) client for Windows 95/98/Me/NT/2000/XP/Vista/7/8/10 and Server 2003/2008/2012/2016. (32 bit and 64 bit operating systems are both supported)

If you're looking for a program to keep your system time accurate, you've just found it!

Its main attributes are:

- Free
- Open Source
- Small
- Easy to Install and Use
- And most importantly: **Reliable**

NetTime was originally written by Graham Mainwaring in 1997 with an open source release made in 1998. Graham made a number of updates to the program until he lost interest and finally abandoned the project officially on the 1st of July 2004.

The NetTime project has been resurrected by myself, Mark Griffiths, and I'm now making an updated version available here:

If you find NetTime useful, please consider making a donation to show your appreciation and to encourage further development of NetTime!

Donate PayPal

Download:

Version 3.14 - Current Stable Version:

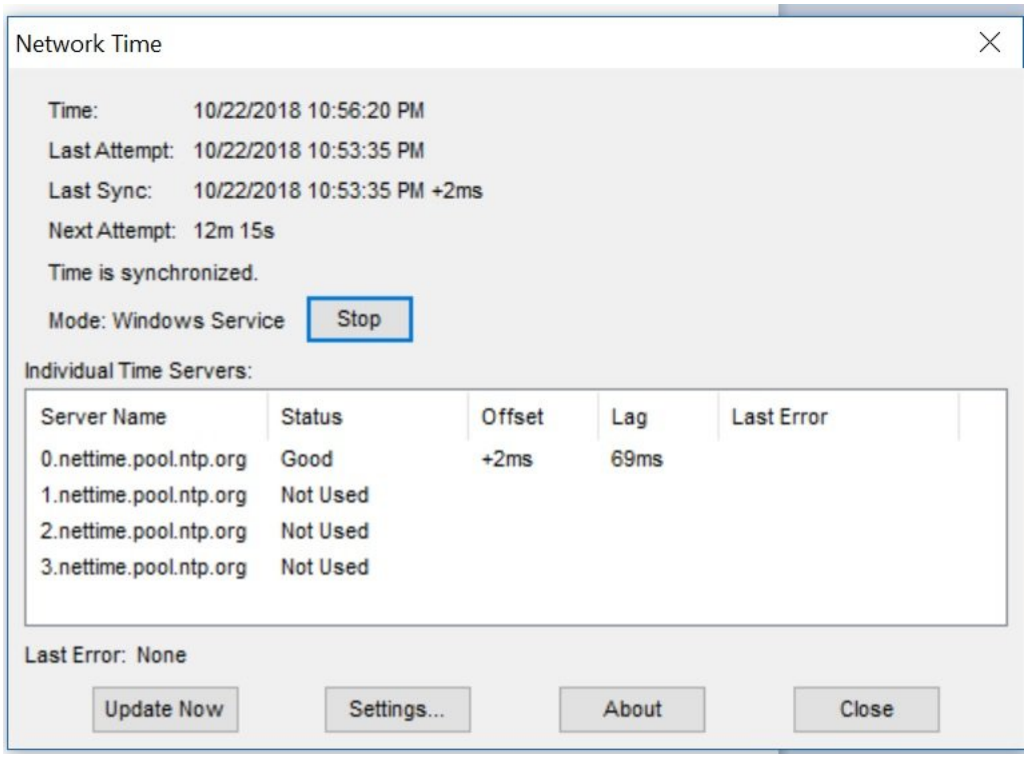
- Installer: NetTimeSetup-314.exe

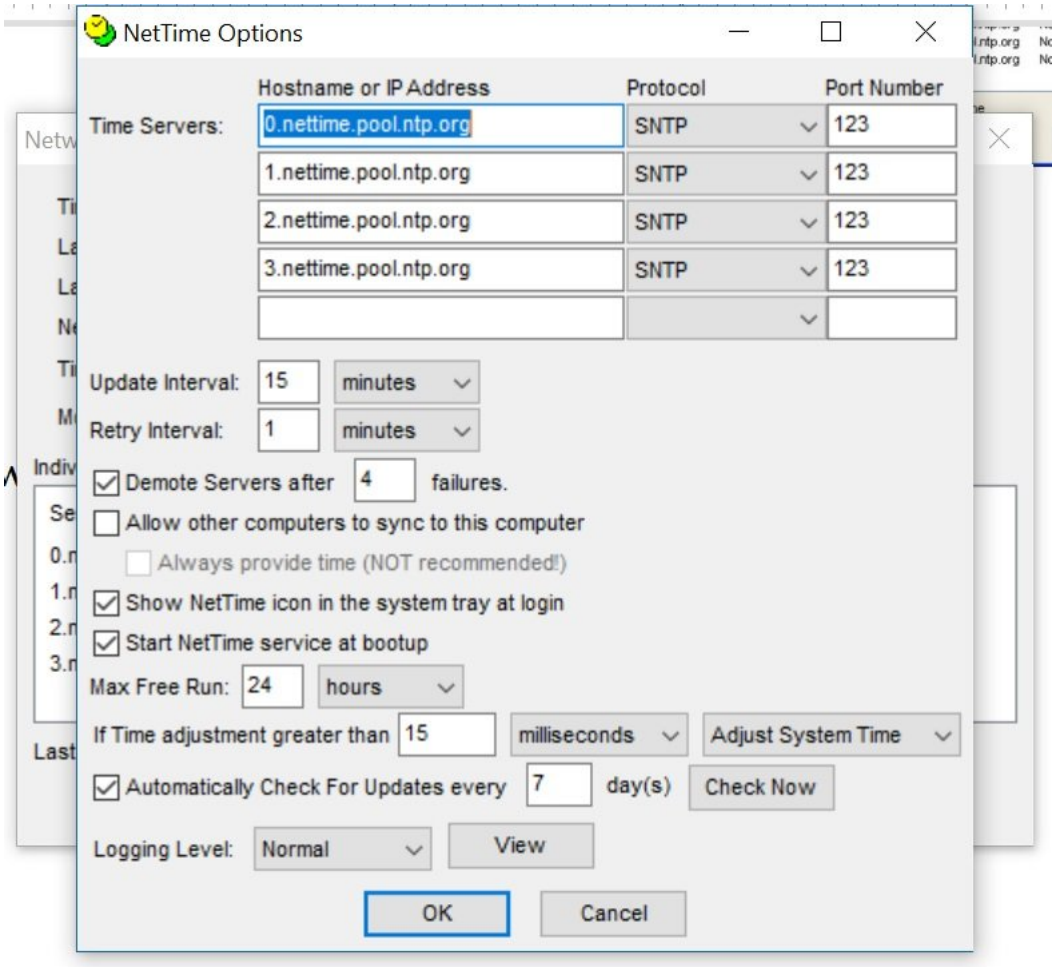
Version 3.20 Alpha 1 - Previous Test Version:

- Installer: NetTimeSetup-320a1.exe

The setup is shown below after installation.

Click on setting and use setting in the sample below.

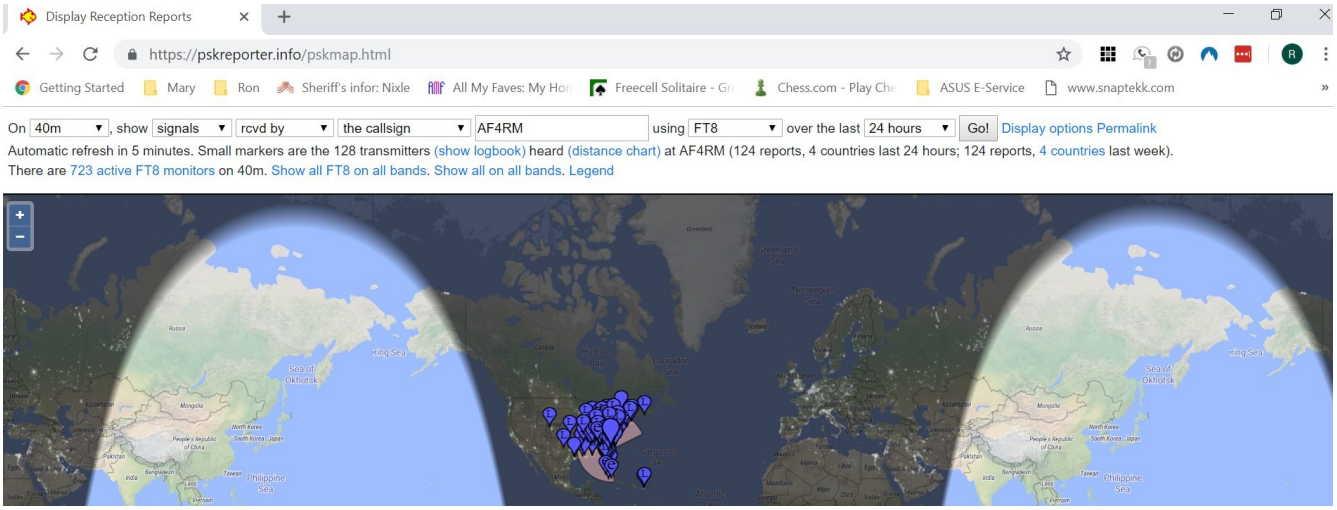



NetTime Options
Hostname or IP Address
Protocol
Port Number
Time Servers:
0.nettime.pool.ntp.org
SNTP
123
1.nettime.pool.ntp.org
SNTP
123
2.nettime.pool.ntp.org
SNTP
123
3.nettime.pool.ntp.org
SNTP
123
Update Interval:
15
minutes
Retry Interval:
1
minutes
Demote Servers after
4
failures.
Allow other computers to sync to this computer
Always provide time (NOT recommended!)
Show NetTime icon in the system tray at login
Start NetTime service at bootup
Max Free Run:
24
hours
If Time adjustment greater than
15
milliseconds
Adjust System Time
Automatically Check For Updates every
7
day(s)
Check Now
Logging Level:
Normal
View
OK
Cancel

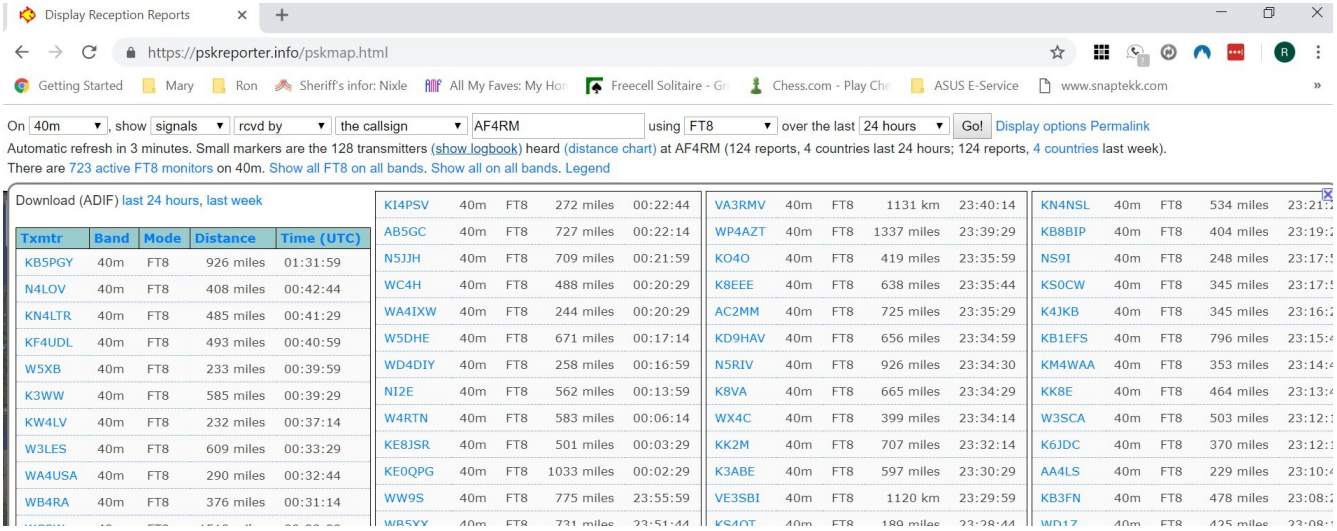
Attachment C – PSKreporter

Go to PSKreporter map: https://pskreporter.info/pskmap.html

Use your callsign, instead of the screen shot sample “AF4RM”.



Click on “show logbook” to see data as shown below. In the show logbook data click on “last 24 hours” in upper left area. The will down load your ADIF file.



Send your ADIF file to frickron@aol.com.