EastTNAPRS Moderator <EastTNAPRS-owner@yahoogroups.com>

Recommended settings for APRS USERS in our area:

In a nutshell:
Home Stations: TN every 30 minutes
Mobile Stations: TN or WIDE1-1,WIDE2-1 every 2 minutes

See below for complete explanation and other details.

NOTES:
- Never use WIDE1-1 anywhere except the first position of your UNPROTO path.
- In UI-View, "APRS," should be the first element in the UNPROTO path. The discussion below is about what should follow "APRS,".

Home Stations:

PATH
Recommended starting path is one (1) hop such as TN or a specific digi such as WA4RYW-7. Maximum recommended setting is two (2) hops such as WIDE2-2 or TN2-2.

From http://eng.usna.navy.mil/~bruninga/APRS-docs/paths.txt
Although you are tempted to set a LONG path so everyone can see you, remember that to them, you are just QRM. Especially since the amount of QRM you generate grows geometrically with the number of hops as shown in the following table. ALSO the probability of a successful packet also goes down greatly. The following table shows the decreasing probability of a successful packet if we assume a 50% probability of collision and each WIDE can hit 4 other WIDES.

HOPS	SUCCESS	#COPIES	COMMENTS
1	50%	1	Local ops & special events (The APRS mission)
2	25%	5	Routine ops (24/7 monitoring for experience)
3	12%	13	extended ops (only occasionally)
4	6%	25	statewide ops Heavy QRM
5	3%	41	Nothing gets through. Too much QRM
6	1%	61	Useless AND totally boggs down network

RATE
Recommended starting rate is every thirty (30) minutes. Maximum recommended setting is every ten (10) minutes.

Mobile Stations:

PATH
Mobile stations are encouraged to use a single hop path of TN. If they travel out of the area, use WIDE1-1 as the first hop in their path to take advantage of the the home fill-in digi's, with a complete path of WIDE1-1,WIDE2-1

RATE
Recommended mobile rate is every two (2) minutes. Maximum recommended setting is every one (1) minute. When parked, the recommended rate is the same as a home station.

Messaging:

When sending a message, use a specific path to the station that you want to correspond with. If you can communicate without a digi, that is the best route. Using a generic path such as WIDE2-2 will generate more packets than necessary and actually make messaging more difficult.

Sending the APRS query "?APRST" to a station that you would like to correspond via a generic path such as WIDE2-2 will assist in identifying a path

---
DIGI/IGATE settings:

As a beginner in the area, it is recommend that you do not run a DIGI or an IGate.

DIGI:
APRS uses Digital Repeaters (DIGIs) to extend the range of transmission. DIGIs is similar to a voice repeater in that it will retransmit what it hears (with DIGIs, this retransmitting is selective based on the contents of the digital packet). DIGIs should cover a reasonably wide area similar to good voice repeater.

As with any good voice repeater, there are still areas that are out of it's coverage area. For stations in those ares, it is sometimes necessary for a second station to "Relay" the first into the repeater. This is the same concept of the fill-in digi. If your station hears packets which the high level DIGIs can not hear, then you may be in a location where a fill-in digi would be helpful.

Please discuss adding a DIGI with the group before activating it.

IGATE:
Internet Gate ways (IGates) transfer packets (positions, messages, etc.) between RF and the internet.

There should be only one (1) IGate for an area. Generally that area should be served directly by the IGate or via a single DIGI (one hop). The Knoxville area is served by WA4RYW-1 which sits at the WA4RYW-7 location.

Please discuss adding an IGate with the group before activating it as too many IGates in one area is not a good thing. For example, duplicate IGating of NWS watches, warnings, advisories, and other weather related data can overwhelm the APRS RF network during severe weather outbreaks and preclude APRS spotters from exchanging information.

If you have any questions about these settings that you do not feel are appropriate for the group, please feel free to drop me a note.

--
William McKeehan
KI4HDU
Internet: ki4hdu@gmail.com
http://mckeehan.info