**Comments of Doug @ dinner**

\*The Winsys network of linked nodes and routers is nice, but it is not a "true" radio network.  Without the internet the Winsys would not exist.  Using it is like making a call to someone worldwide in using your cell phone.

\*In Utah the Winsys does not exist as of yet.  However, the various HAM clubs are "linking" or connecting repeaters with one another, which is true radio communication.  It is called the "Inter-mountain Interlink or Inter-Tie System".  (When I go up to our cabin in late May I will test this system and network)

\*The Sinbad Amateur Radio Group out of Price, UT is one of the key groups taking the lead on this.

\*All of this data can be found at the Utah UHF Society web page.

\*The reason some people can hear Adam in Rio Verde on simplex is due to the fact that there must be an antenna on top of Thomson Peak that is "reflecting" the signal by its own down into the Phoenix valley.  This is not by design, but does it on its own.  There are many cases in the west where a radio signal bounces off "rocks" or canyon walls to make it down into a valley.  Why or how this happens is not fully understood.  An example is where you can have an repeater in the Heber Valley at 7,000 feet skip down the canyon walls in the Provo Canyon, then reach someone in Provo.  This is all on simplex.  How or why this happens is not fully understood.  Iron or metal fragments in the canyon walls?

**Comments From The Stake Center:**

\*When building your "go box" the best case to use is called Gater 6U or Gater 8U.  One is medium size and the other is the largest size.  The 8U cost about $200.

\*The small MFJ speakers are the best to use, highest quality and best overall price.

\*Yaesu 991 is one of the best radios to use on battery power.  All "Yaesu" products are the best when it comes to efficiency plus engineering to ensure the best radio signal propagation.  All of the Yaesu products offer the least amount of "distortion" among all of the vendors like Kenwood or iCOM.

\*Power supply>  Minimum use 25amp for HF.  12amp for UHF/VHF and 35amp if you are using a radio for all modes or frequencies.  Power to AMP to radio signal, plus maximum efficiency is key.

\*You need to build a "power amp" meter or gauge in your go box to ensure when to switch due to low power.  To your backup battery, solar power or even a power/gas generator.

\*The best power supply system is called the "Radio Epic Power Gate". <https://www.gigaparts.com/epic-powergate-12v-40a-backup-power-system.html>  The reason this is the best power supply is that it has a "built in" power controller for "solar panels", and you do not need to have or use the typical power inverter or controller that you find in most solar systems.  It makes it easy in the field to cut down on having too many components or systems in your go box.

\*Choose your battery wisely!  They are not all the same!

\*If you choose solar panels do not go over 250 watts.  This is the maximum for the in built controllers.

\*The Comet SBB5 is perhaps the best antenna, most efficient when it comes to dB noise and does not require "counter points".  Not all mobile or small antennas are the same.  Choose wisely!  You can spend a lot of money and then find that they are not as efficient as others in the marketplace.

\*Make sure and measure or figure out the amp to watt hours in your system or go box design.  This is critical for your equipment power draw from the battery and how long you can be in the field.

\*Use "stranded wire" for all connections.  "Soldering" is the best approach for wiring verses "crimping", because you can always melt the solder down the road or make changes easily, to save your wire scheme in the future.

\*Make sure and use plenty of wire in your go box design to ensure you have enough to make changes in the future.  Many people use limited wire or just what they need today, then run into problems down the road when you want to make changes.

\*Use gauge wire of 14-12 for 10-50 watt radios.  And use 10-12 gauge wire for 100 watt radios.  Proper gauge wire is critical for go box design.

\*Fans for cooling and good air flow is critical in your go box.

\*Use a "Rig Runner" that has "fuses" already built into the system for power wiring.

\*Having a USB "light want" in your go box design is nice for night operation.

\*Recon G1 is a nice "pre-made" kit that has everything built for your radio in a go box.  It is expensive and can cost up to $300.  But for those who do not want to build your own rigging kit for the go box, you can buy pre-built kits for easy installation.

\*Power use in your HAM shack!  Use the least amount of power when possible when you have kids or pets around "in doors" or if you are on the road in a hotel room.  For example, if you can use 10 watts verses 50 watts, great.  This means your remote antenna can "reflect" the least amount of power and minimize anyone "touching" your antenna and getting a burn.  (Some of us found this out while radio in the park, and touching an exposed antenna.  The result was a hand burn. )

\*Use high quality coax cable in your HAM shack.  Do not go low cost and buy the cheapest.  The reason is the outside wire will get exposed to weather, heat, sunlight and become damaged.  "Beldin RG-8" is one of the best.  The ultimate is the LMR coax cables are the best, expensive, but very good when it comes to power/noise/signal loss.