Antenna notes

Antennas: (see also notes on propagation)
There are essentially 4 types of external antennas possible, beyond the internal ones on some devices:

- whip (stick) antenna: look for screw on with no internal wiring, needs ground plane
- whip dipole antenna: much better, needs no ground plane, often flexes 90°
- 8 dB omni antenna: various vendors, stay away from high dB claims, should be quite large, not cheap
- 13 dB yagi antenna: looks like a fish skeleton, very directional, only used for long haul links
- Alfa 5dB antenna and mouser 4dB are both true dipole antennas

See the article listed on the home page for a detailed account of different antennas.
General thoughts:

- Most antennas used are vertical quarter wave omni antennas or "whip" antennas
- Higher performance antennas look like these, but are actually dipole antennas
- Make a larger dipole, arrange it like a fish skeleton and you have a yagi antenna or yagi-uda beam antenna (n.b. yagi is "goat" in Japanese)

As a general rule, the longer the vertical omni antenna, the more disk-like is the horizontal propagation pattern
In my experience, mesh follows many paths, and using a yagi may seem like a great way to extend range, but be careful that the polarization of the antenna is setup correctly: 905 mHz uses vertical polarization, so any yagi should look like vertical elements to be useful.

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