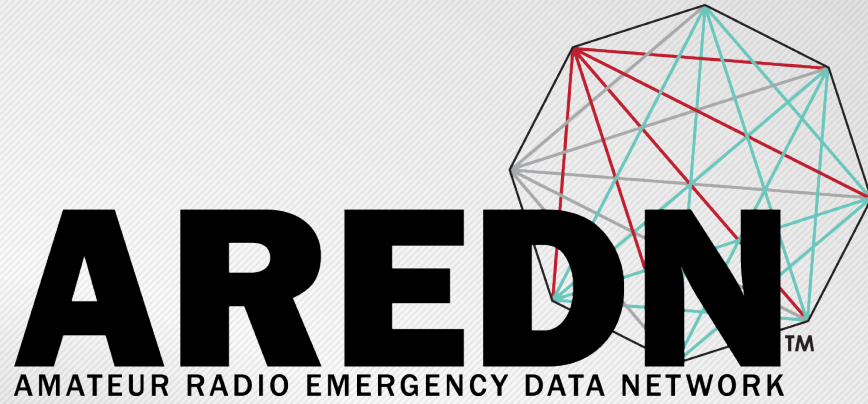




AREDNTM
AMATEUR RADIO EMERGENCY DATA NETWORK



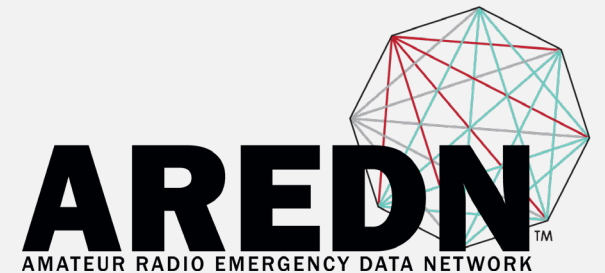
AREDN DEVICE DEPLOYMENT SCENARIOS

Joe Ayers, AE6XE

YTHF
May 23, 2020

- QTH connecting in to area AREDN mesh
- Go-Box: community event relay station with ipCam
- Tower site P2P long distance
- Tower site area coverage

Presentation Overview



QTH connecting in to area AREDN mesh



2 Ghz Mesh

5Ghz Wifi LAN
access on mesh

MikroTik hAP AC Lite RB952Ui-5ac2nD



~\$40
Dual radios (2 & 5 GHz)
200 mW

Home
Network

Laptop, voip,
ipcam, etc

POE CAT5

MikroTik LHG XL HP5



~\$80
27 dBi gain antenna
630 mW

Go-Box: community event relay station with ipCam



Caution! May need
24v to 12v POE
splitter

Check power specs!



2 port devices: Ubiquiti
Nanostation M2/M3/M5, TP-
Link CP210 v1/v1.1, CPE220
v2/v3 CPE510 v1/v1.1

All 4 ports act as if a single
layer 2 network switch

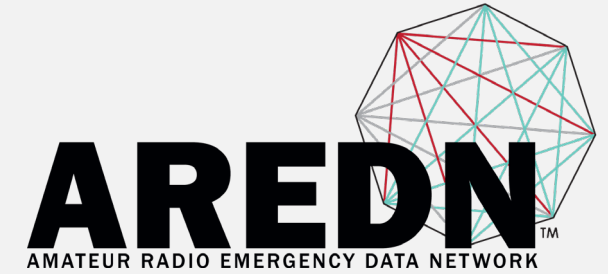
POE passthrough



24v to deliver needed power
over POE (current limited)



Tower site P2P long distance



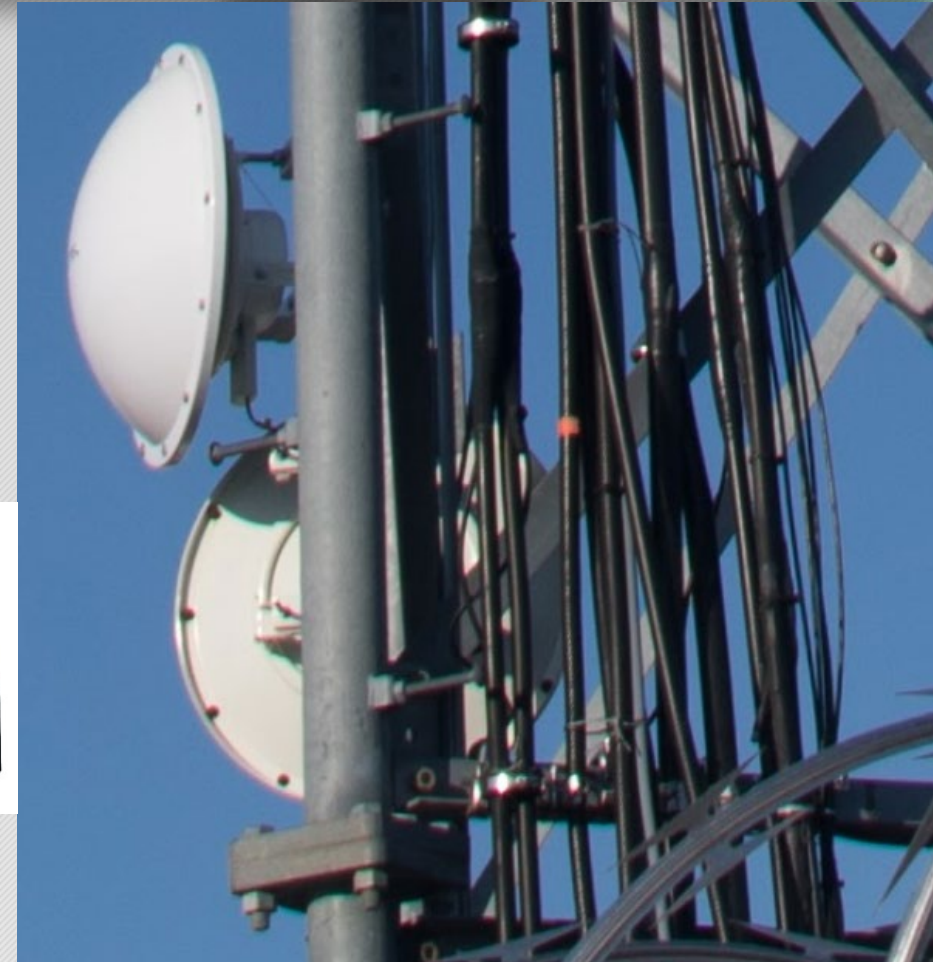
Ubiquiti PBE M5 620 w/ ISO shielding

Ubiquiti Rocket
M2/M3/M5

Ubiquiti
RocketDish M5-
30dBi



Ubiquiti ToughSwitch



Tower site area coverage - Sectors

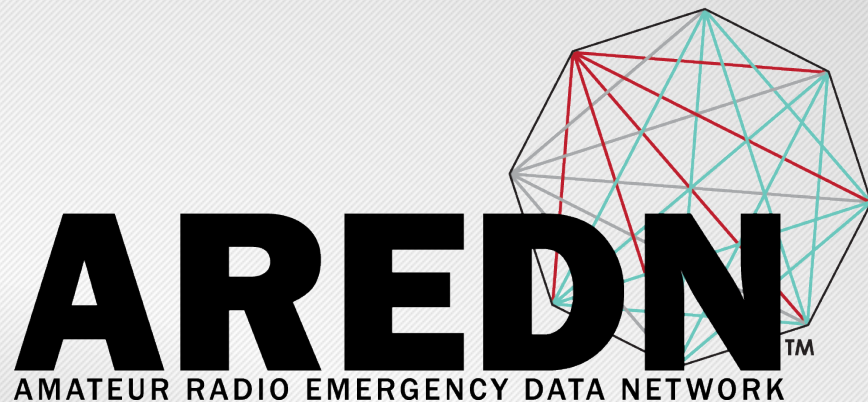


Ubiquiti Rocket
M2/M3/M5

Ubiquiti 120 deg
Sectors

RF Shielding



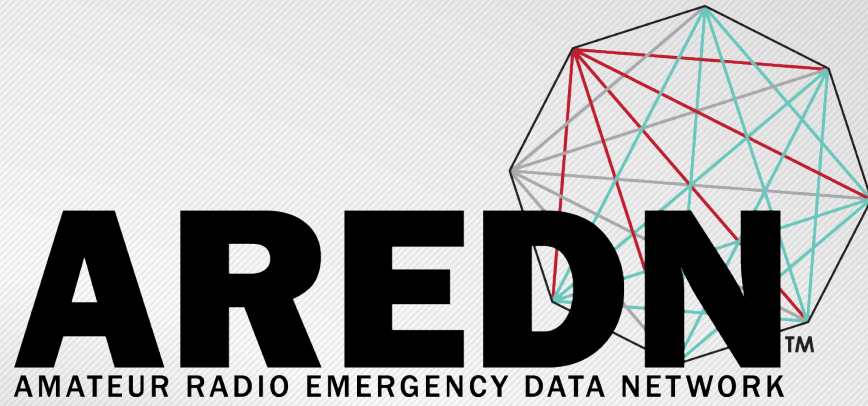


Contact Info

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www.arednmesh.org/forum

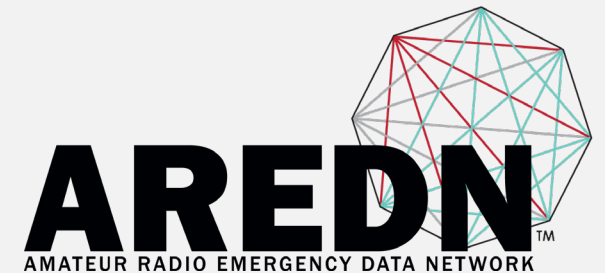


Photos



Backbone Using High Ground

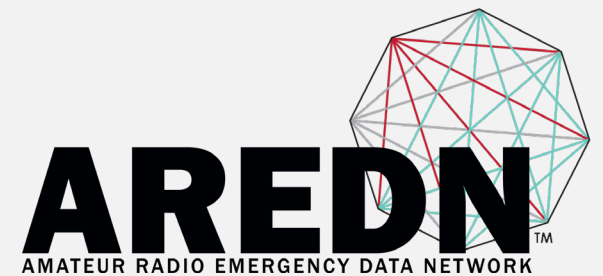
Mt. Palomar, 6200' ASL to Mt. Otay at 48 miles





2 GHz and 5 GHz Downlinks

High Ground at Ham's Mountain Cabin

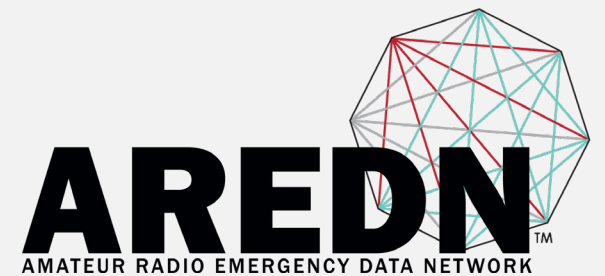






Deployed Relay Node

Temporary Shelter Deployment



Exercise Your Skills

