

# AMATEUR RADIO FACT SHEET / DISCUSSION POINTS

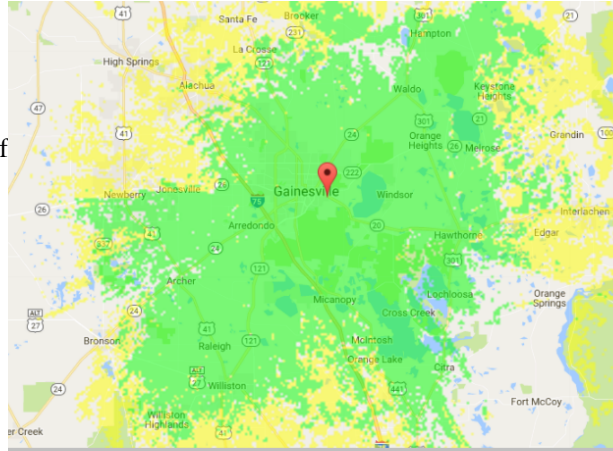
## TOPIC: EOC VHF ANTENNA PERFORMANCE

Tests indicate EOC amateur VHF antennas totally dependent on repeaters

- ◆ Unable to reach Jonesville (WINLINK RMS gateway with HF connections)
- ◆ Red Cross radios able to make that connection
- ◆ Magnetic-mount car antenna @ Red Cross parking lot makes connection
- ◆ RadioMobile simulation confirms limited coverage past central gainsville higher ground

Conditions:  
 To 20-foot high antenna  
 Spotty/limited coverage west of I-75/north of  
 Newberry Road

This simulation may be optimistic.  
 In Hurricane Test EOC unable to reach  
 Senior Center.....



### 2017 Full Scale Hurricane Test – VHF/UHF antennas 50 feet AGL @ EOC

Communications Link Attempted (50 foot antenna at EOC)	Result
EOC to the SARNET statewide UHF repeater system.	Unsuccessful
EOC to Red Cross (190 ft. MSL)	Successful
EOC to Senior Center (185 ft. MSL)	Unsuccessful Surprising & unexpected!
EOC to Newberry (84 ft. MSL)	Unsuccessful

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## RELEVANT HEIGHTS

EOC	125 Feet MSL
Red Cross	190 Feet MSL

## HIGH SHELTERS

HIGH CENTRAL SHELTERS (Ridge ground higher than EOC antenna)	
Talbot Elementary	178 MSL
Williams Elementary	132 MSL
Shell Elementary	148 MSL
Meadowbrook Elementary	130 MSL
Gainesville Senior Center	185 MSL
Rawlings Elementary	150 MSL
Buchholz High School	175 MSL
<b>LIKELY UNREACHABLE</b> (shielded by higher ground in between)	
Newberry Archery Center	84 MSL
High Springs Community School	64 MSL
Santa Fe High School	120 MSL
Alachua Elem	90 feet MSL

### Antenna Height Table – Miles Coverage – If no HILLS

Antenna Height	10 feet	20 feet	40 feet	80 feet
10 feet	8	10	13	17
20 feet	10	12	15	19
40 feet	13	15	18	22
80 feet	17	19	22	26