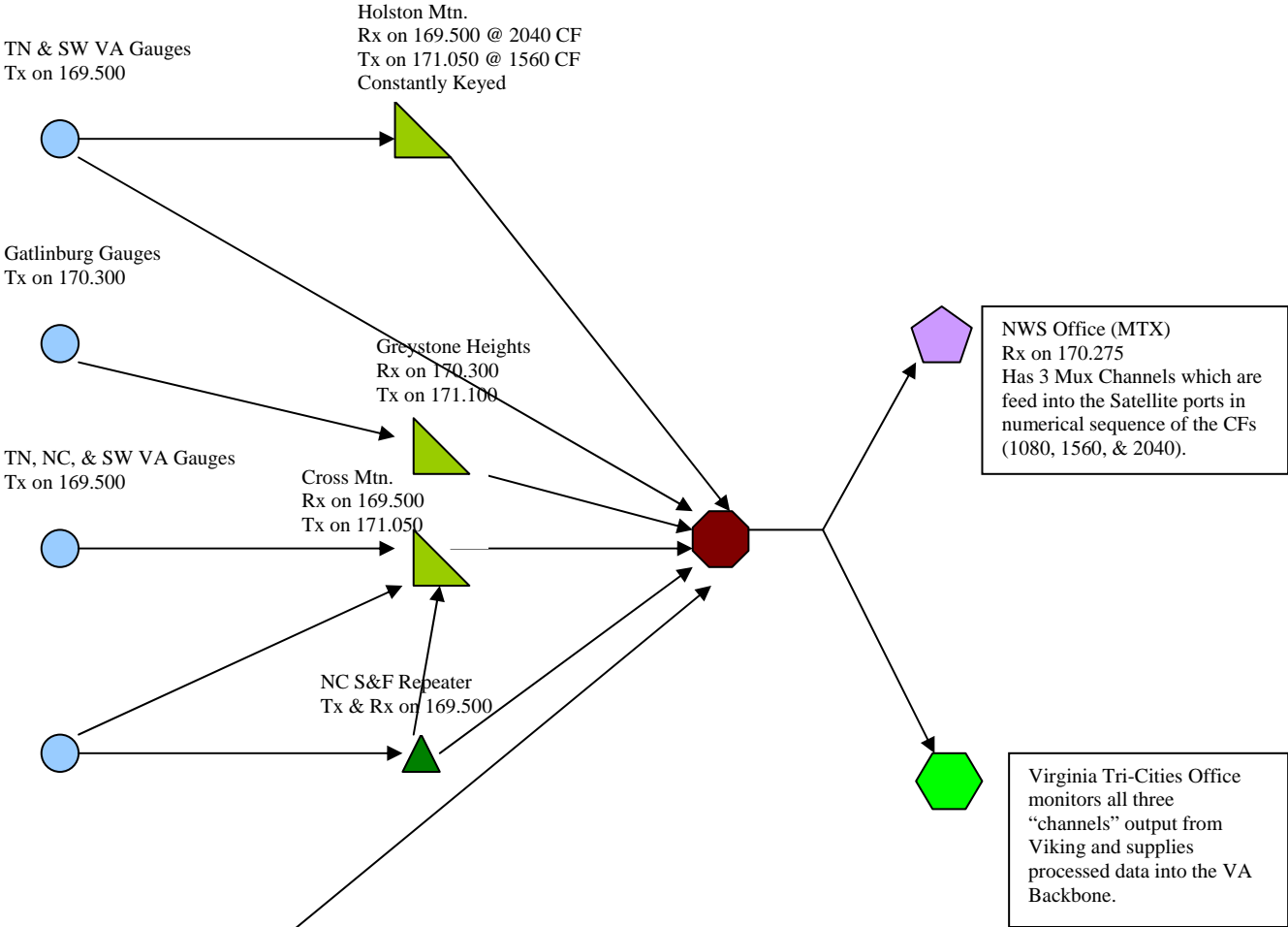


# Tennessee Gauge Collection Network Block Diagram



Viking Mtn Configuration - At Viking there are 3 receivers (169.500, 171.050, & 171.100). The transmissions received on 169.500 are fed through an RFL 9850 FSK tone module where a tone shift is applied from a center frequency of 2040 to 1080 Hz and then transmitted on 170.275. The second receiver (171.050) listens to the constantly keyed output from Holston Mtn and the event-driven transmissions from Cross Mtn. Transmissions received at Holston Mtn are fed through an RFL 9850 tone module where a tone shift is applied from the center frequency of 2040 to 1560 Hz before being repeated to Viking. Reports received at Cross Mtn are repeated without any tone shift applied. The transmitted signal from Cross Mtn is significantly stronger than the constant signal from Holston, thereby overriding the received signal from Holston. The third receiver at Viking listens to the output of the Gatlinburg (Greystone Heights) repeater. Transmissions received are repeated without any tone shift being applied.