

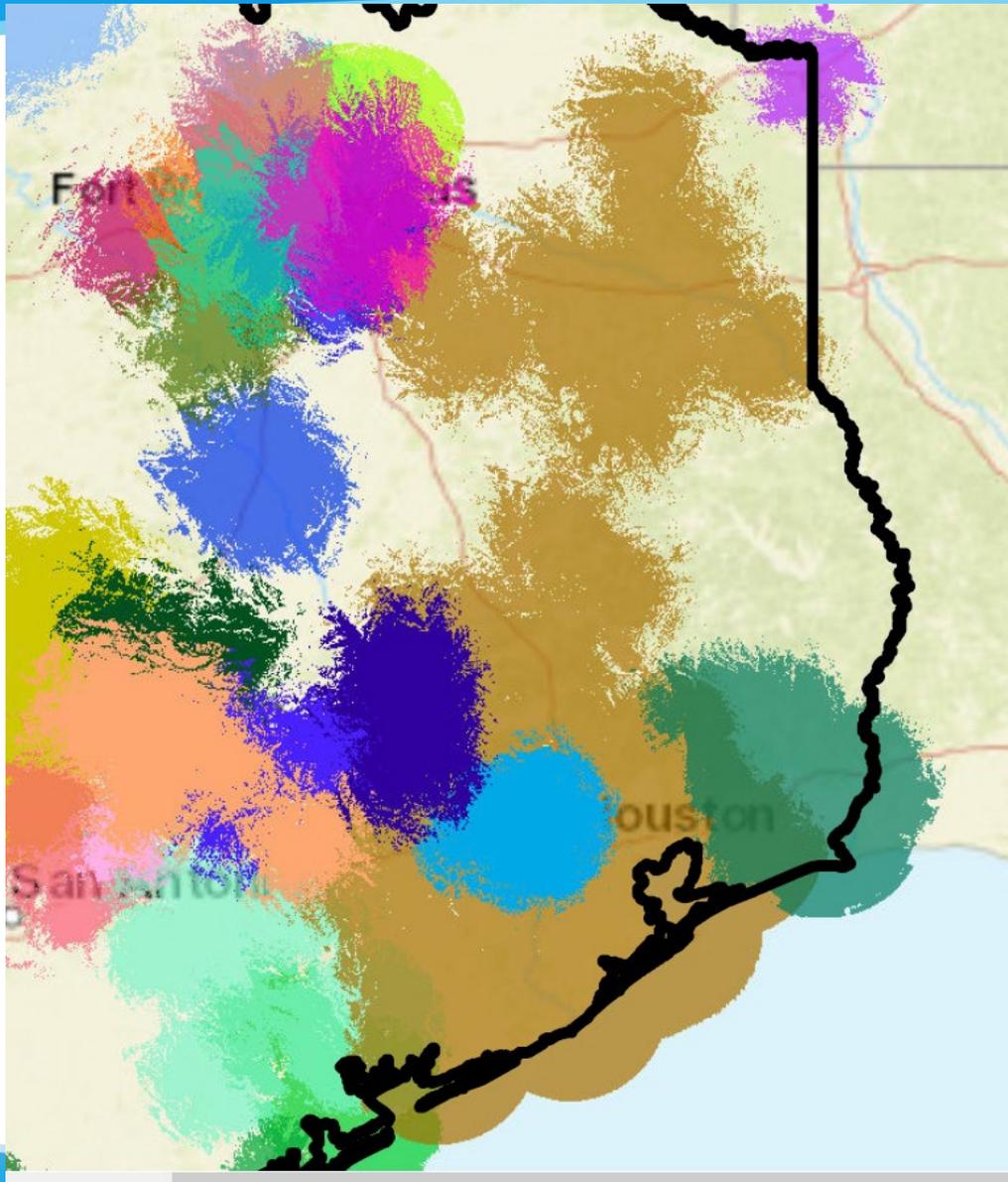


DownRange Deployable Communications

Greg Jurrens – Sr. Manager, HCUS

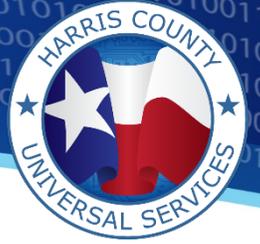
07/18/2019

SE Texas Trunked LMR Coverage



- TXWARN System
- Montgomery County Hospital District
- Cy-Fair Fire
- SETTRS
- HISD
- LCRA

Grey Sky Days...

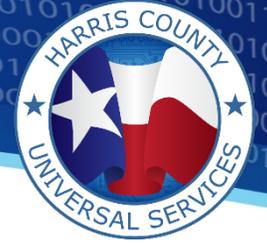


Fire up the COWs



- **6ch P25 700/800 Trunked LMR**
- **VHF/UHF/700/800 mobiles**
- **ACU-1000**
- **WiFi Canopy**
- **110' Crankup Tower**
- **12Kw Diesel Genset**
- **Adding V/U/7/8 NiFOG Repeaters plus BATS 2019**

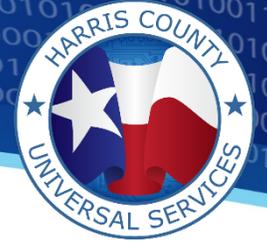
COW Deployments



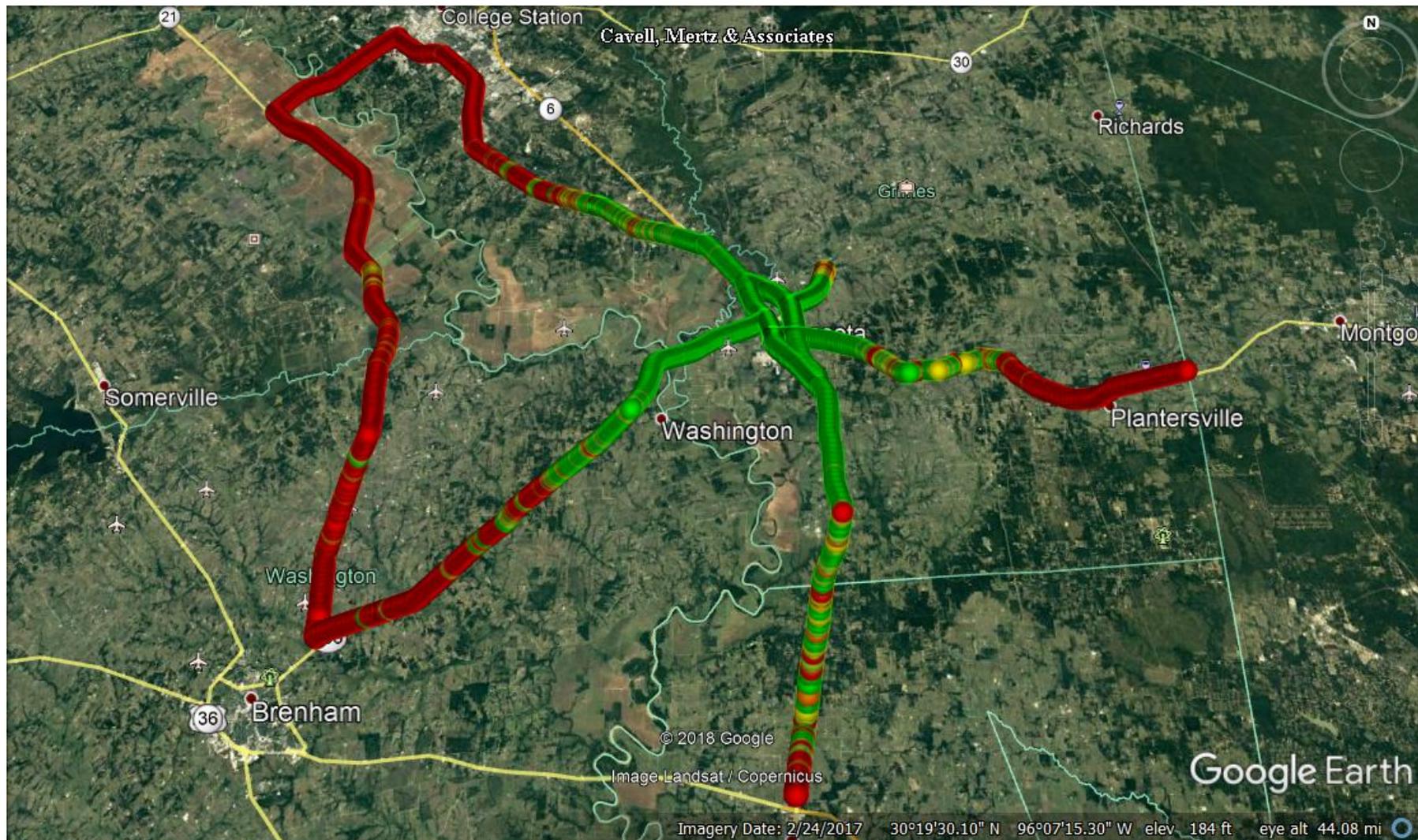
- 4hr min. Deployment
- 2 man team
- Suitable Tow Vehicle



COWs need LOVE TOO!



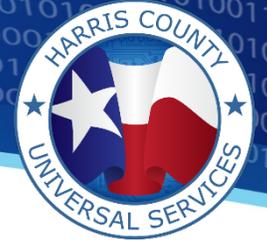
President Bush 41 Funeral Train Coverage



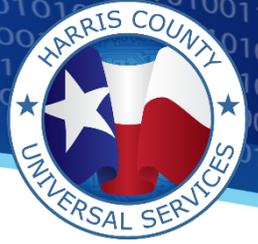
Navasota COW Deployment



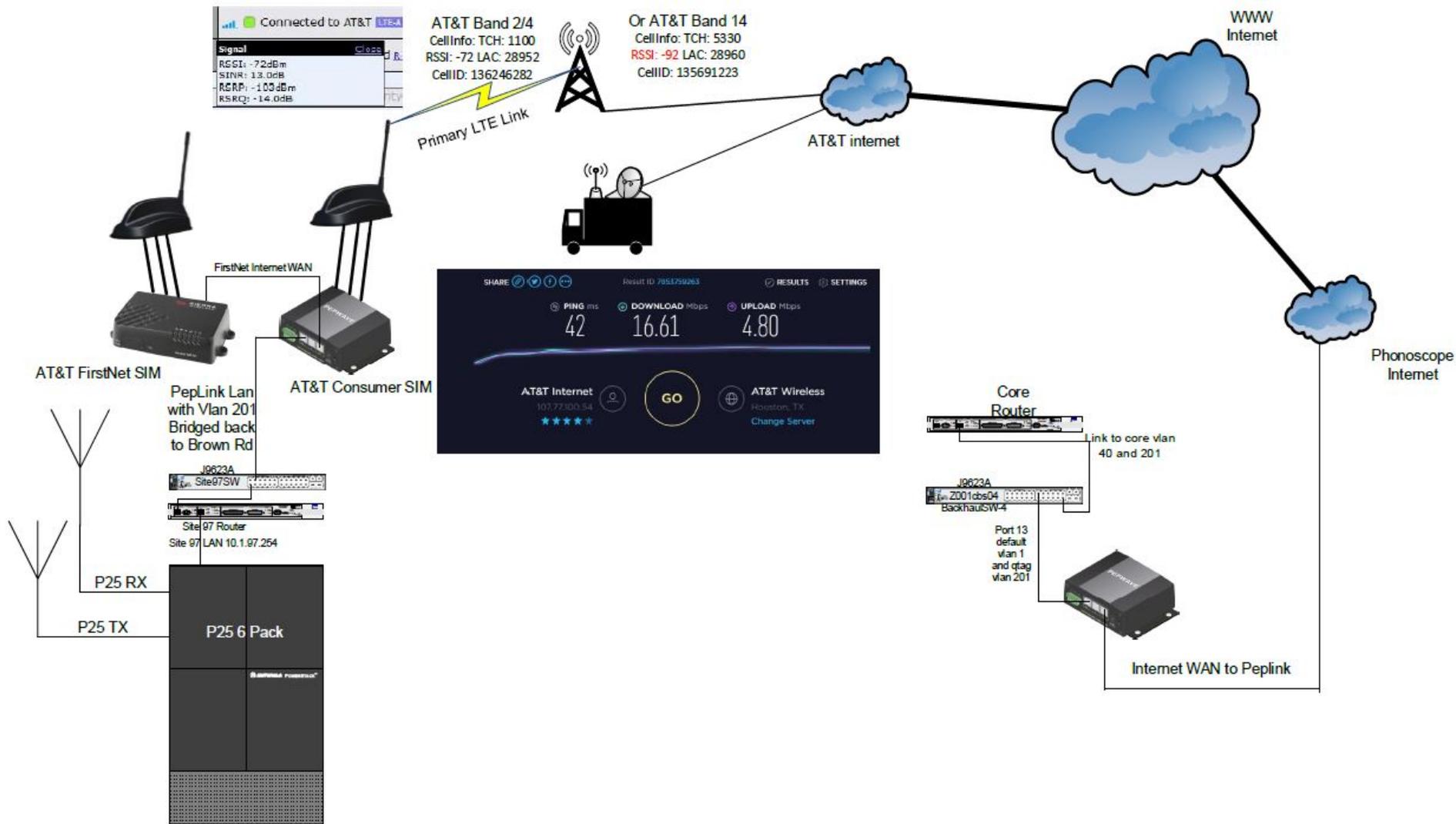
Partnering with FirstNet for Backhaul



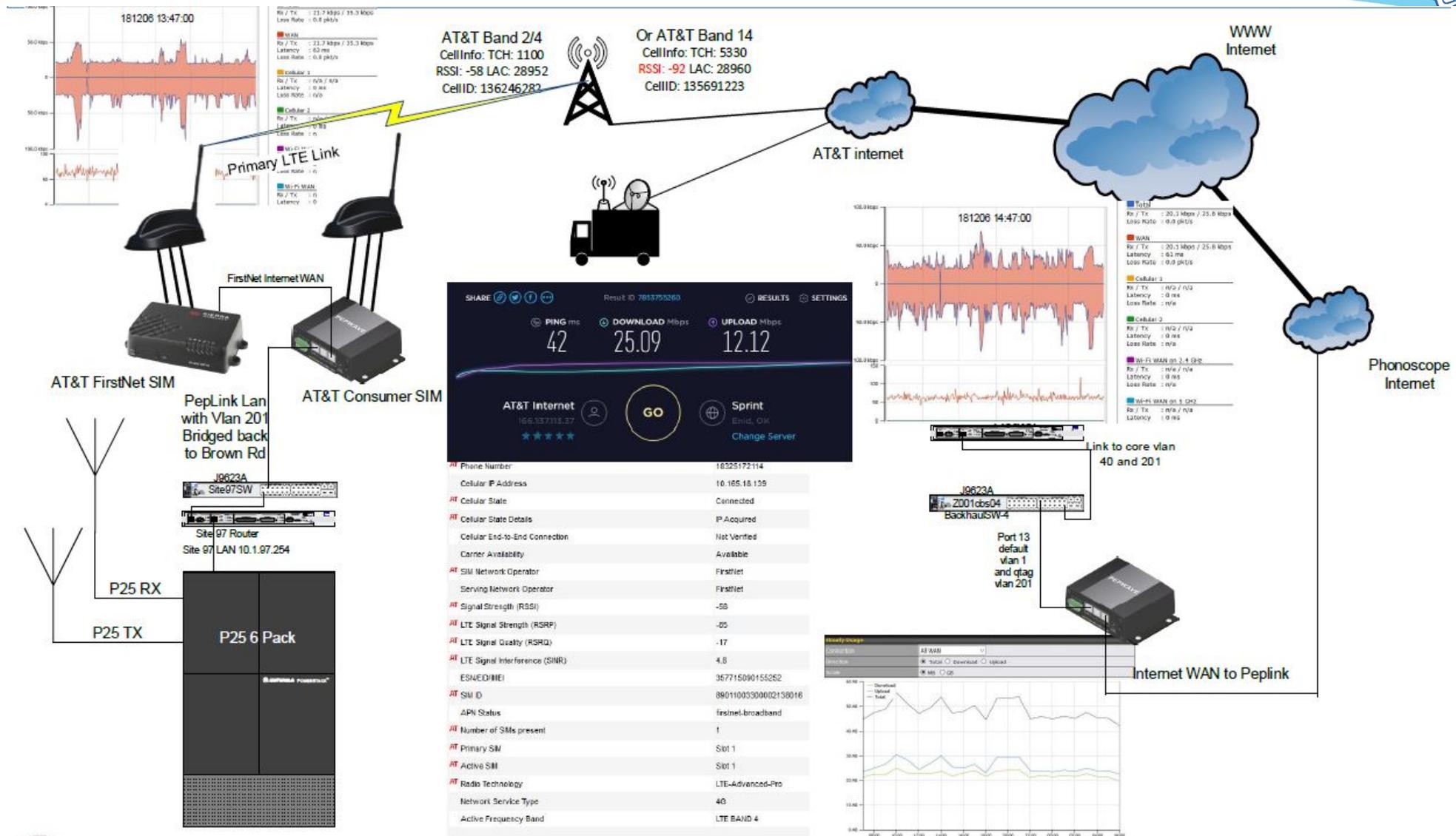
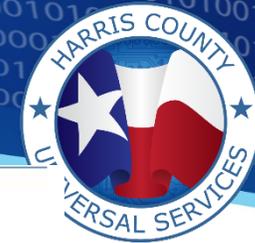
LTE Broadband Backhaul



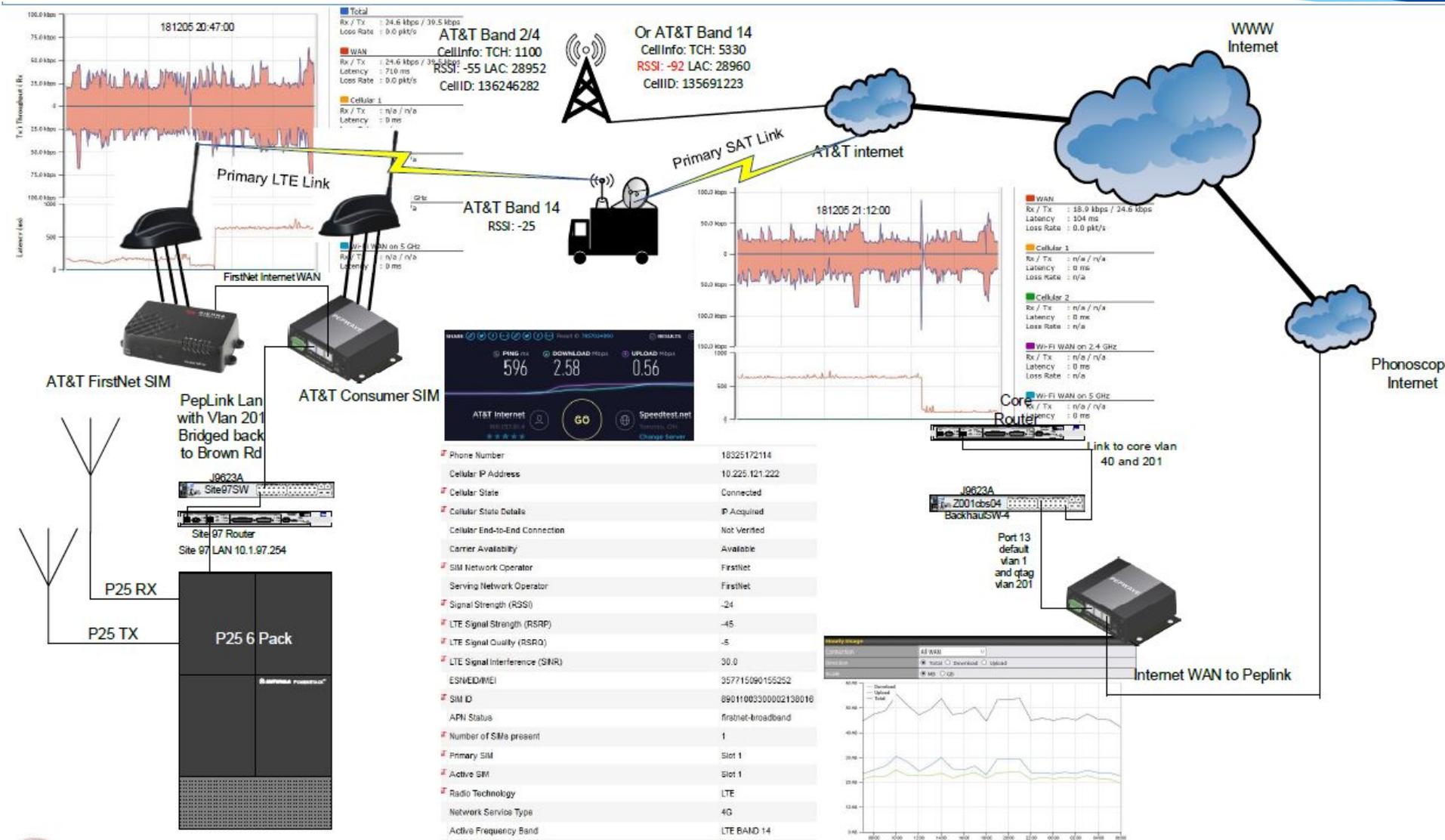
Consumer LTE Backhaul



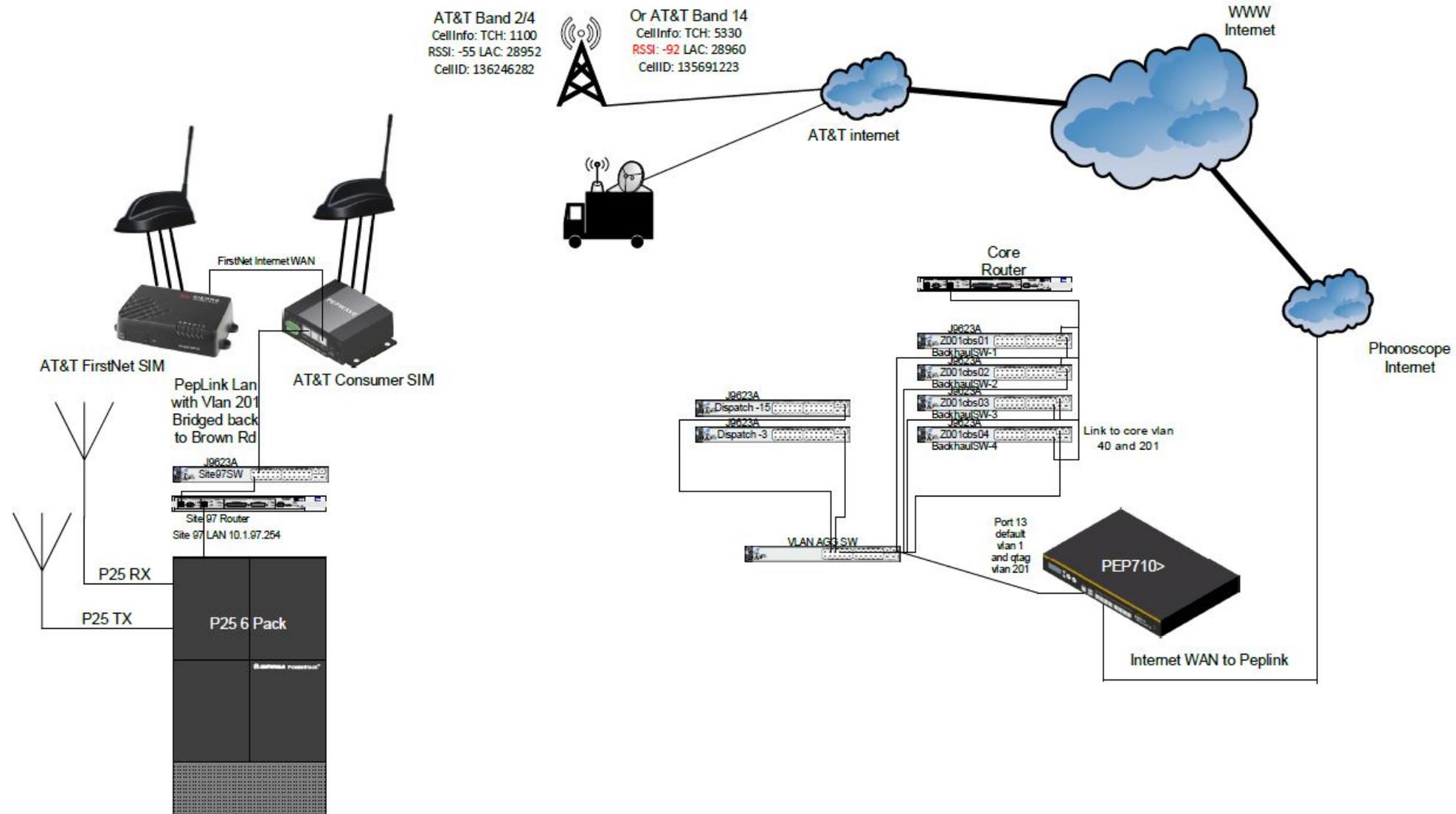
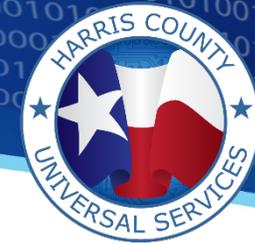
FN "Black SIM" w/B14



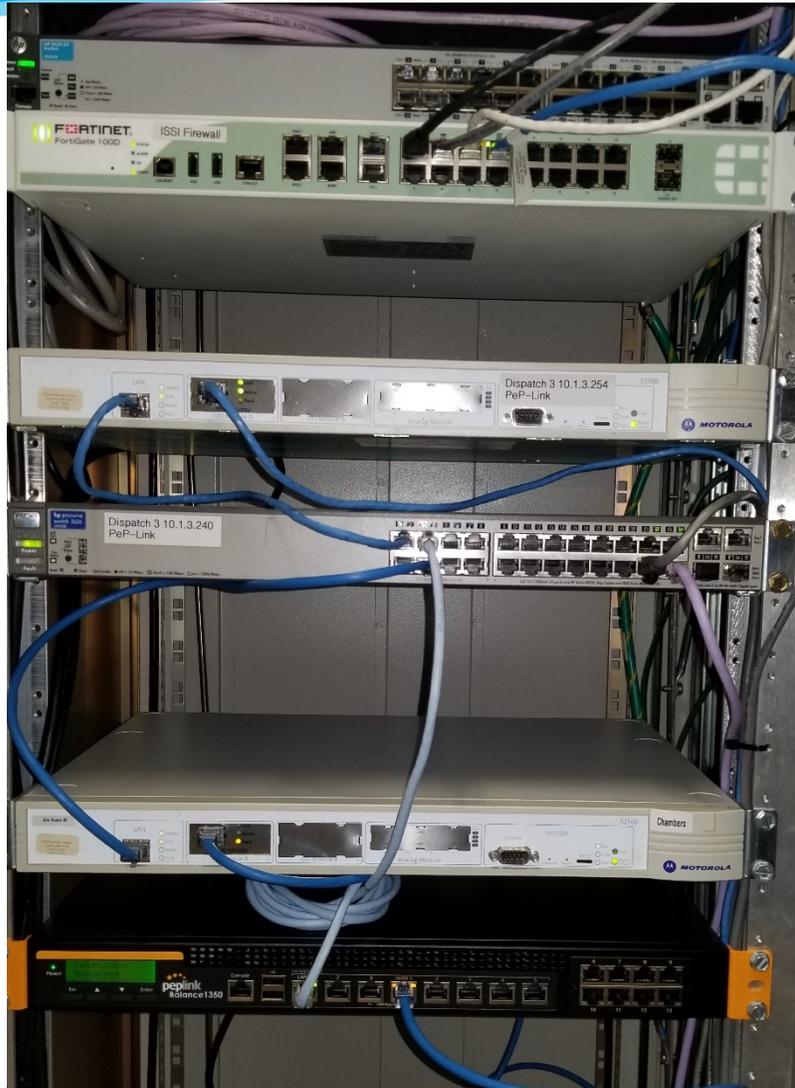
FN Through SATColt



LMR Core BackEnd Connectivity

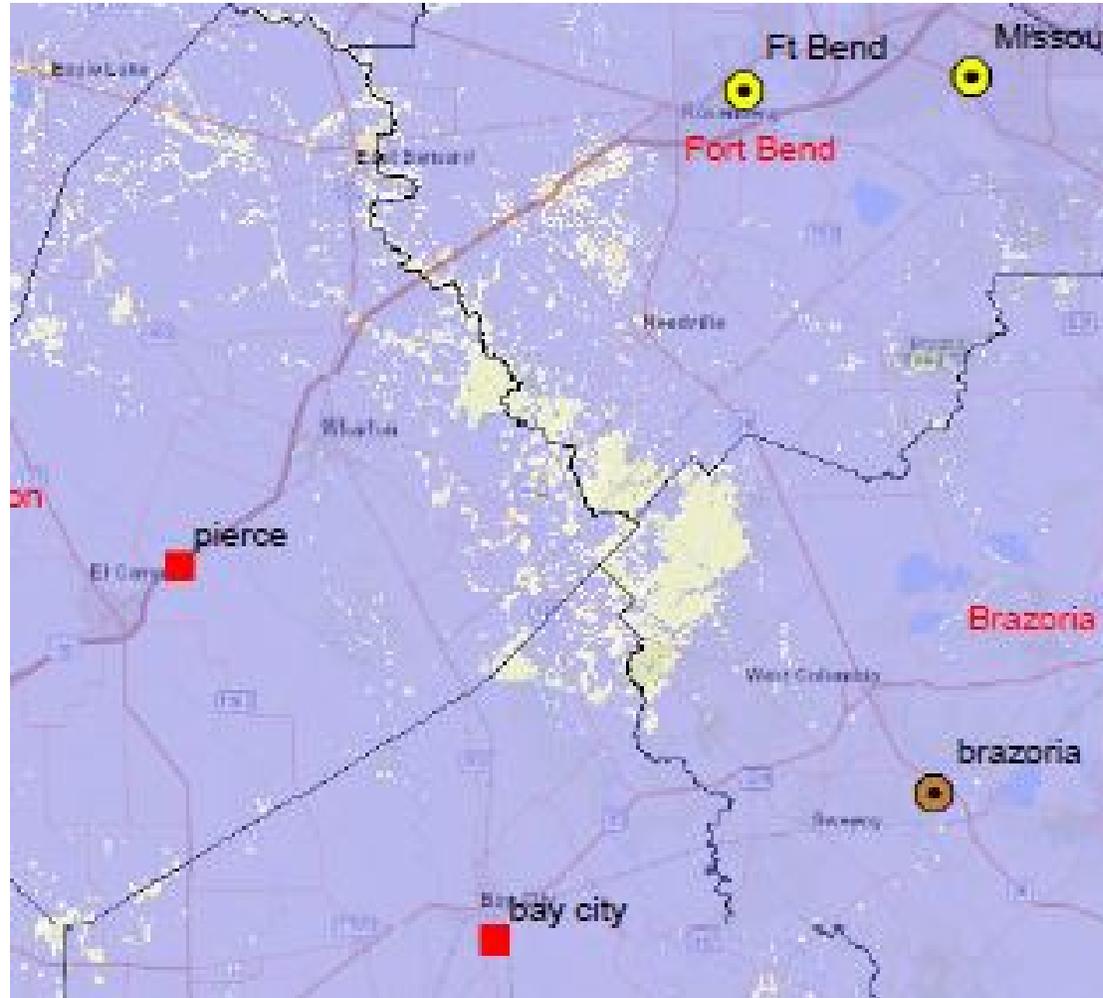
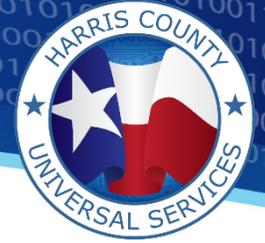


LTE Head-end Rack

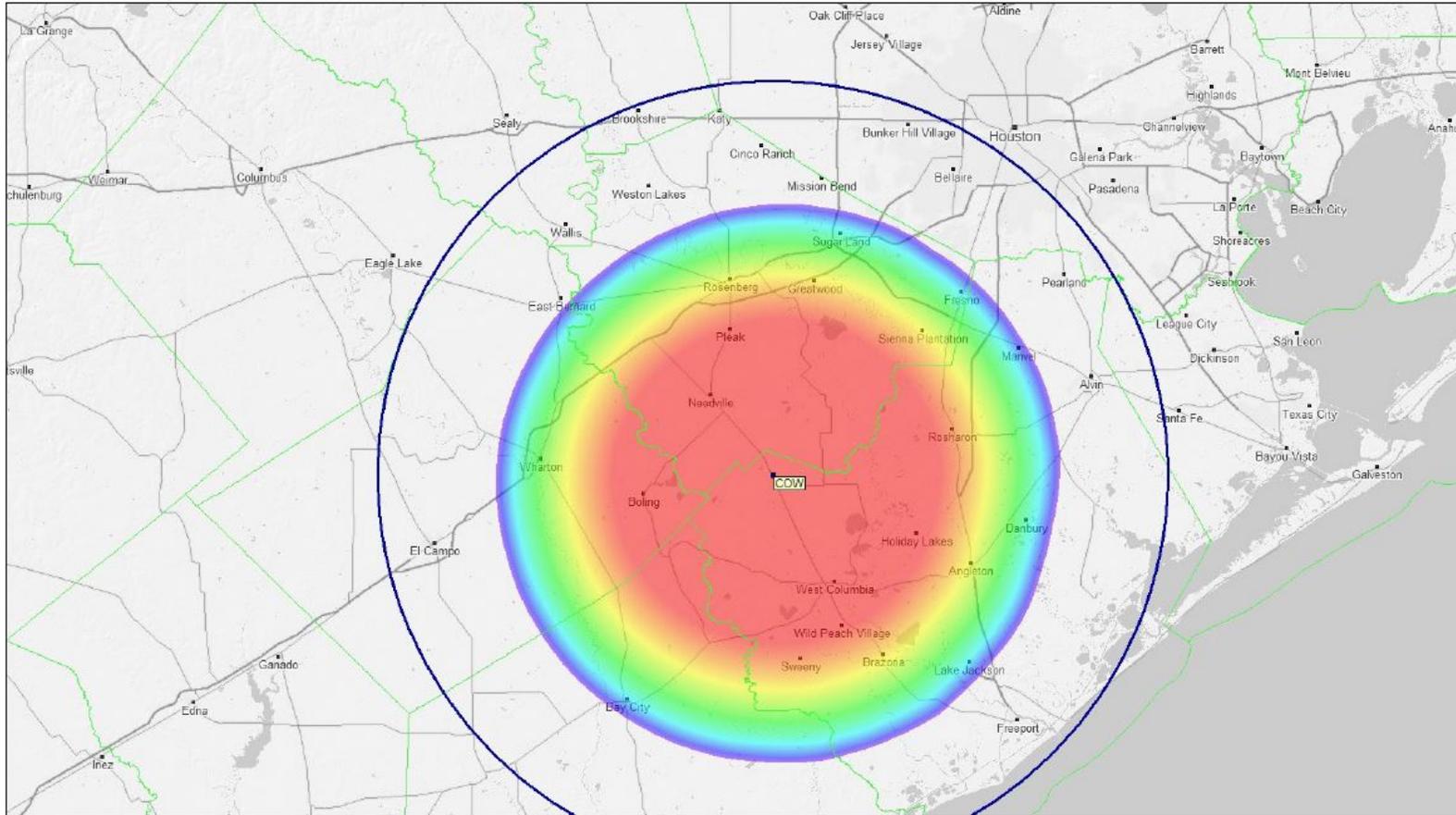


- 24 Port Managed Switch
- Fortinet 100 Firewall
- S2500 (T1 Interface)
- GGM8000 (Ethernet Interface)
- S2500 (T1 for Dispatch Project)
- PepLink Multimode Gateway

“Four Counties Gap” – Boling Flood 2019

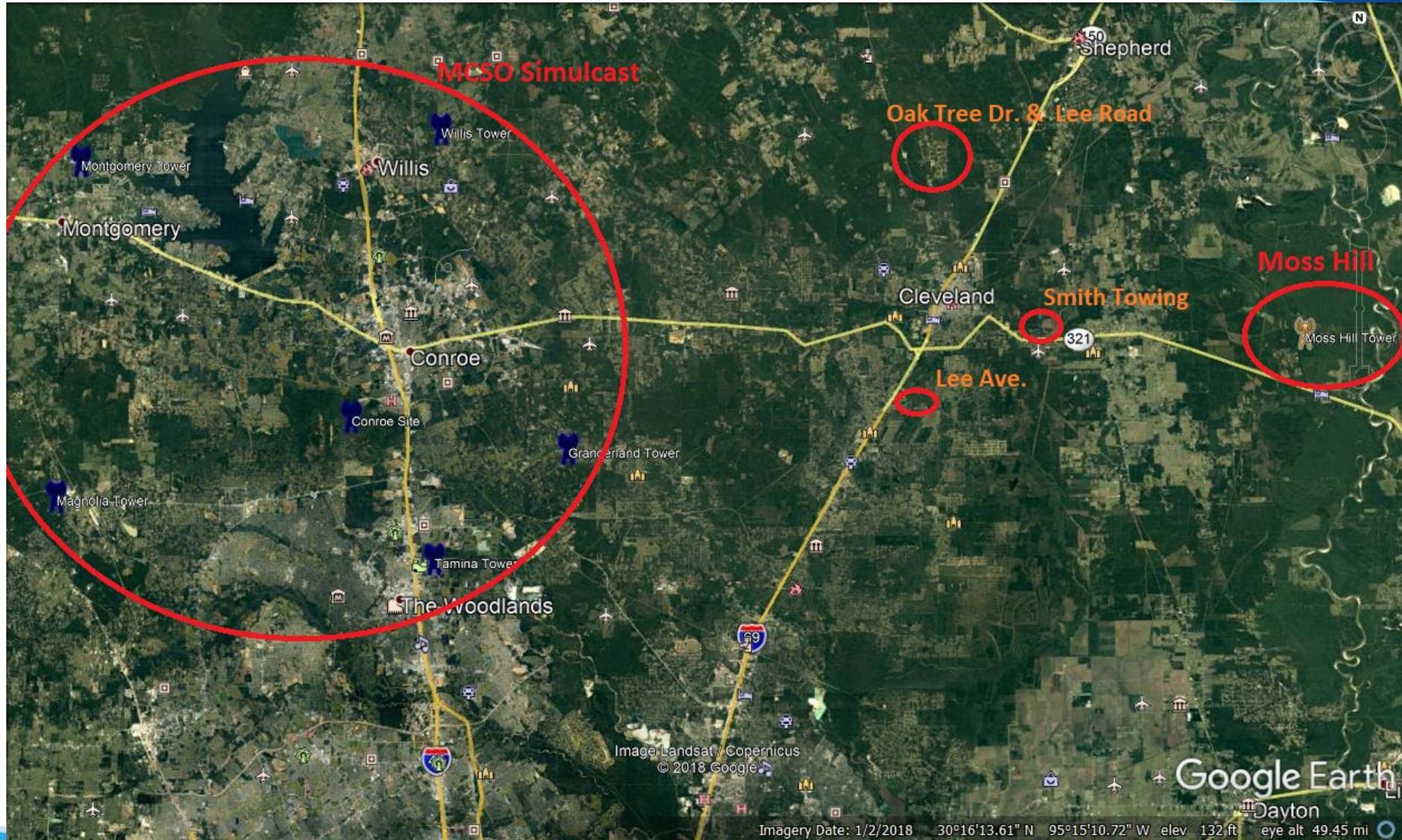


COW Placement – Look for High spots

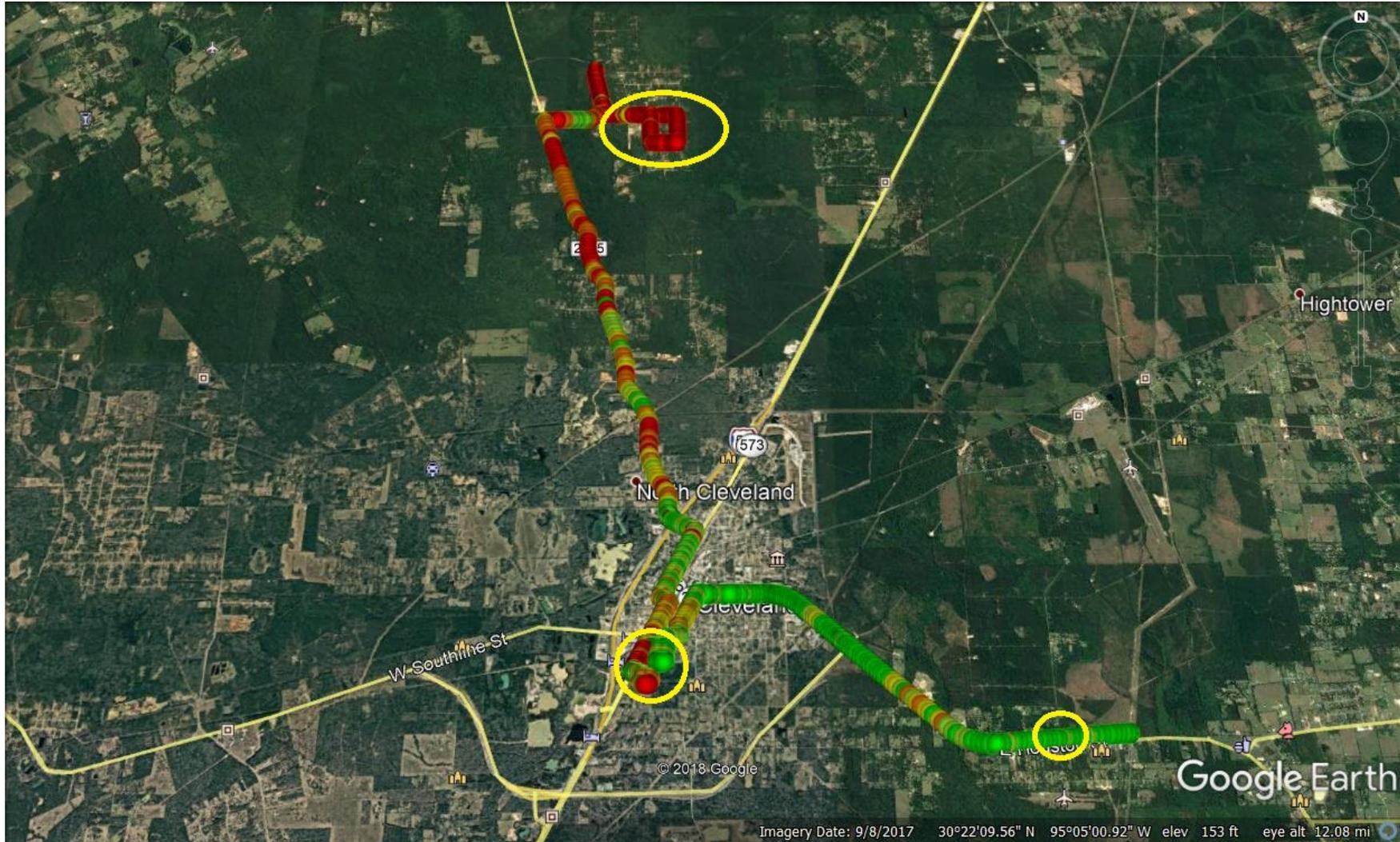
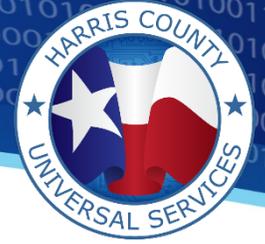


25 to 40 dbu

System Edge of Coverage Issues



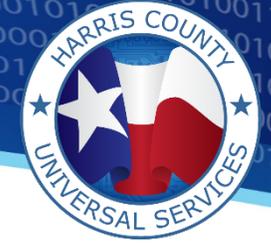
Edge of System Coverage Issues



Suitcase Repeaters



Well...What else can we use it for?

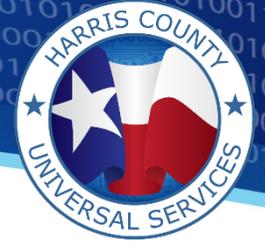


- LMR T1 Backhaul
- LMR Ethernet Backhaul
- KVL to Core Authentication Loads
- Business Continuity Support
 - RNOC-in-a-Box
 - Remote “Helpdesk”
- OEM Quick Deployment Network

Business Continuity – RNOC-in-a-box



Tactical In-Building Signal Enhancement (BDA)

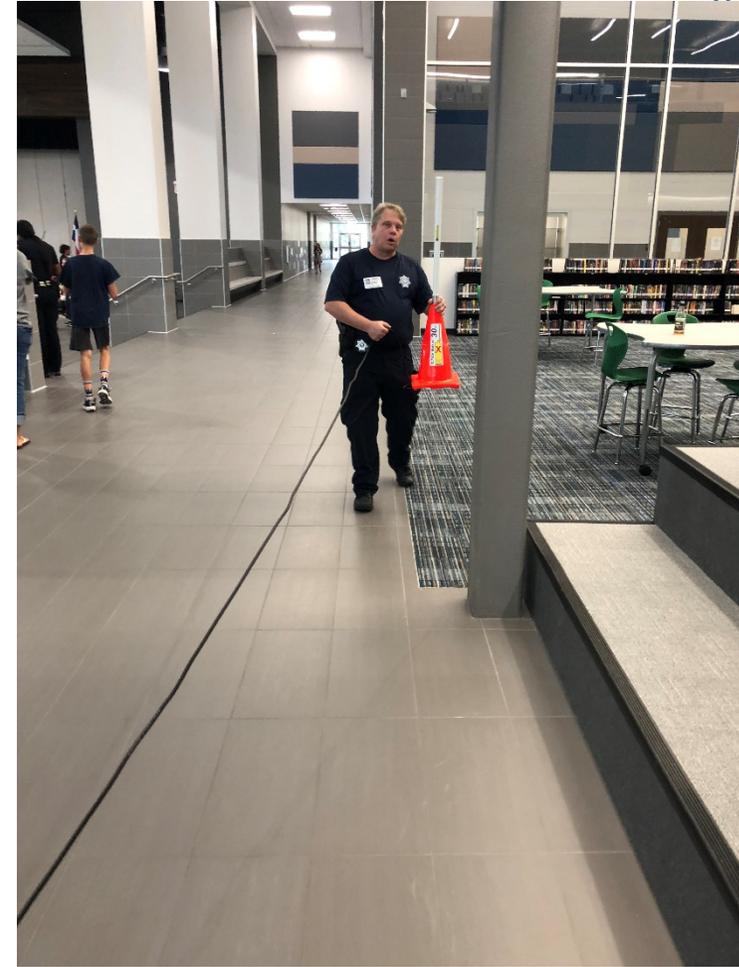


- **Fast Deployable In-Building coverage**
- **700/800 MHz + Band 14 LTE**
- **8hr battery life**
- **Easily deployable by First Responders**

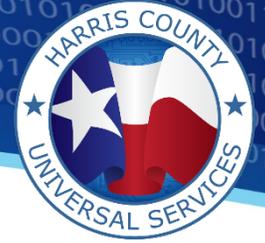
Tactical BDA Deployment



Tactical BDA Deployment



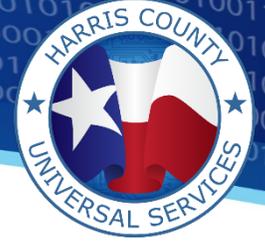
MSAT Terminals



Mobile Command Center



Long Term Deployables



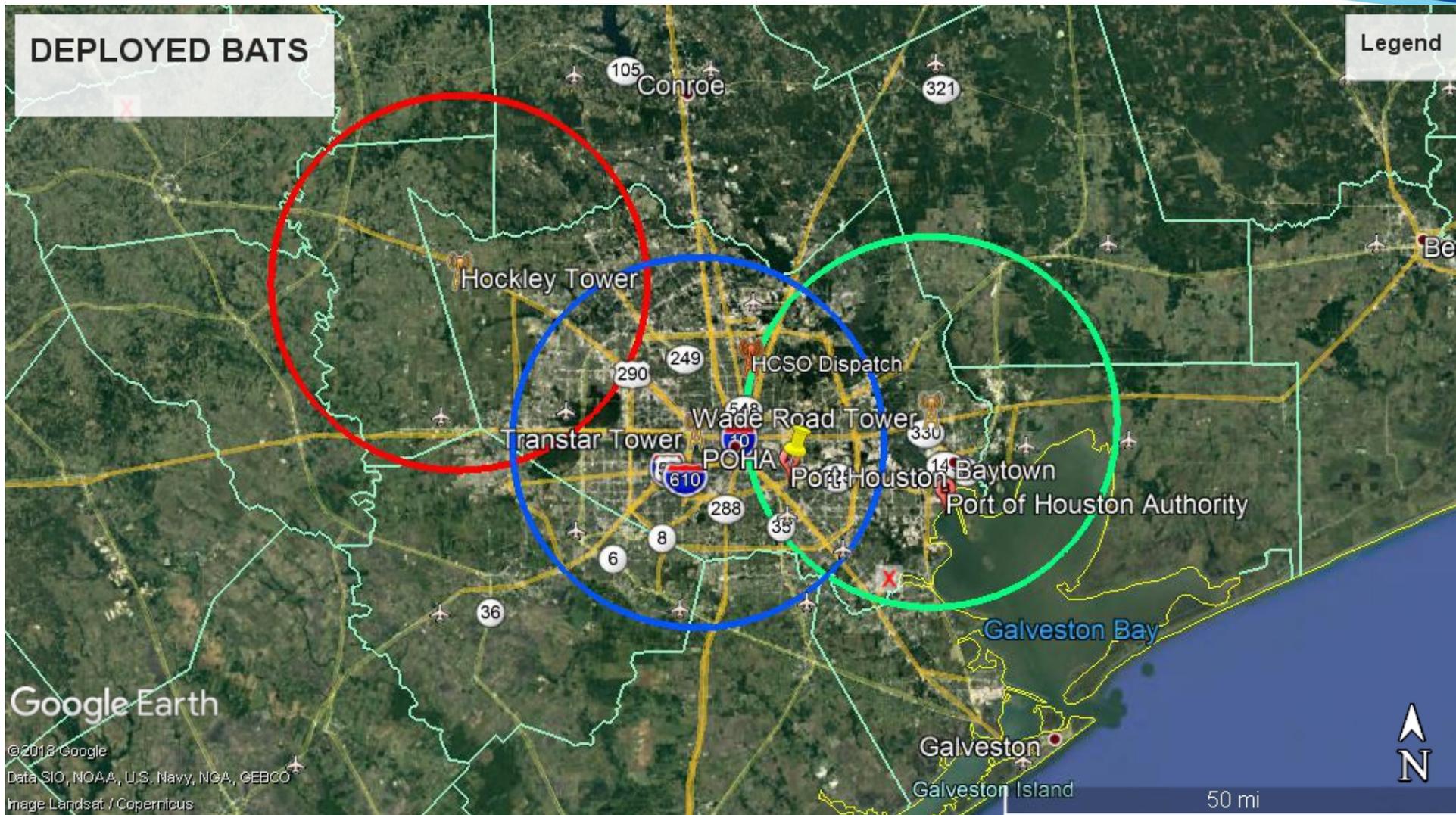
- 16 PSAP Dispatch Ops
- BATS
- V/U/700/800 Radios
- Business Continuity Support

BATS – High Speed Connectivity

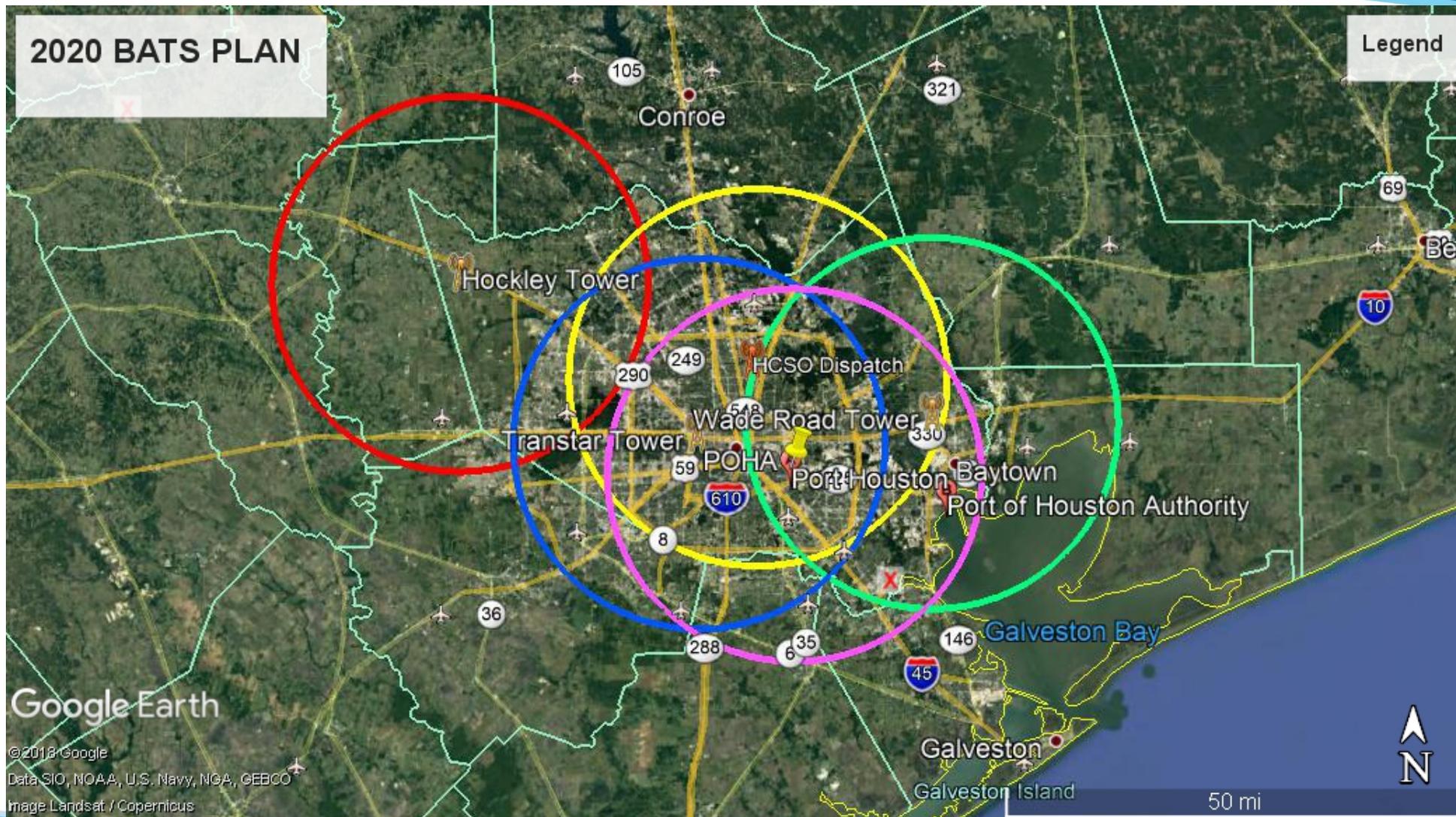


- **Broadband Antenna Tracking System**
- **4.9 GHz Microwave Backhaul**
- **Up to 250 Mb/sec data throughput**
- **UHF Auto-Tracking beacon**
- **25 Mile range based on mounting**
- **DPS, HCSO, HCUS, POHA, Ft. Worth**

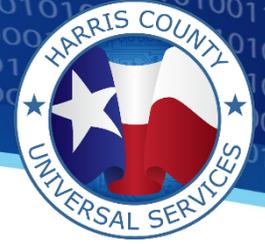
BATS – Current HC Deployment



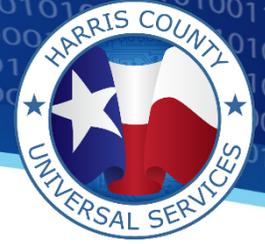
BATS – 2020 Plans



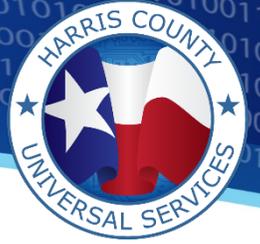
HC SAT Trailer



HC SAT Trailer – Multi use deployment



HC Sat trailer





QUESTIONS?

