

The background is a dark blue gradient with a subtle pattern of white stars and constellations. Overlaid on this are several technical diagrams in a lighter blue color. These include circular gauges with numerical scales (e.g., 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260), concentric circles, and dashed lines with arrows indicating movement or flow. The overall aesthetic is technical and futuristic.

WHAT YOU CAN DO WITH DMR (DIGITAL MOBILE RADIO)

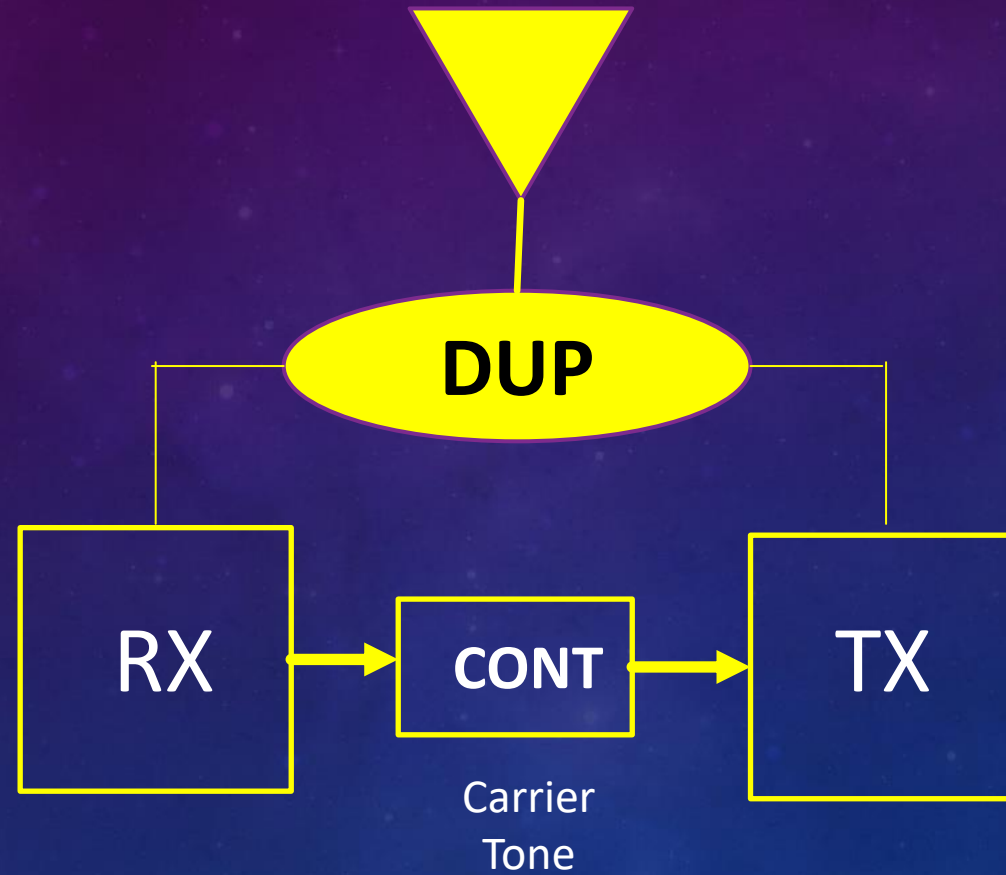
Credits

CHRIS SHOVER KB3TWW

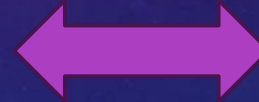
**JOHN LA MARTINA aka John Miklor
K3NXU**

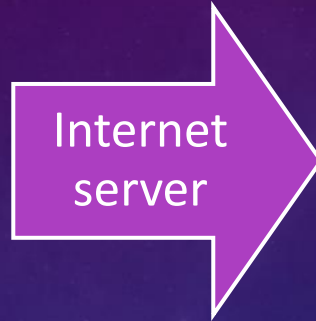
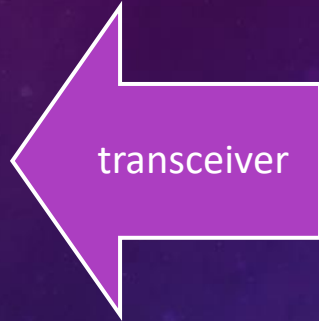
RICK GOODMAN WA3USG

ANALOG REPEATERS



AN ANALOG NET

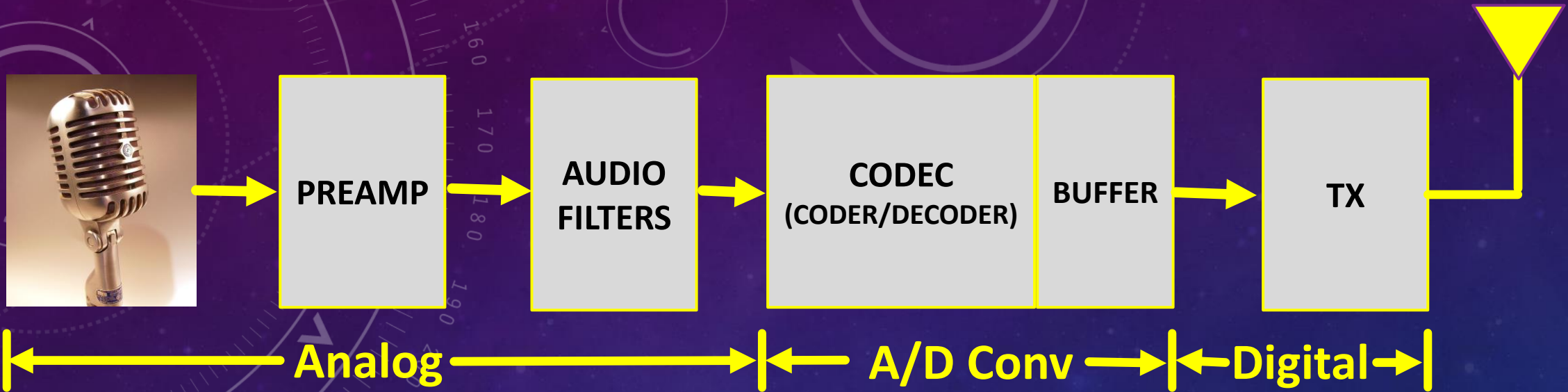




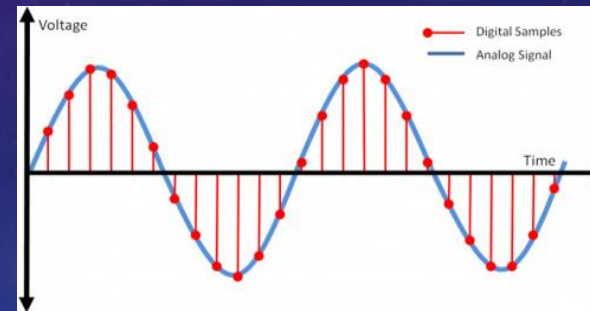
DMR is RF to Internet

WHAT MAKES A DMR TRANSCEIVER DIFFERENT THAN ANALOG?

DMR – IS A DIGITAL VOICE MODE

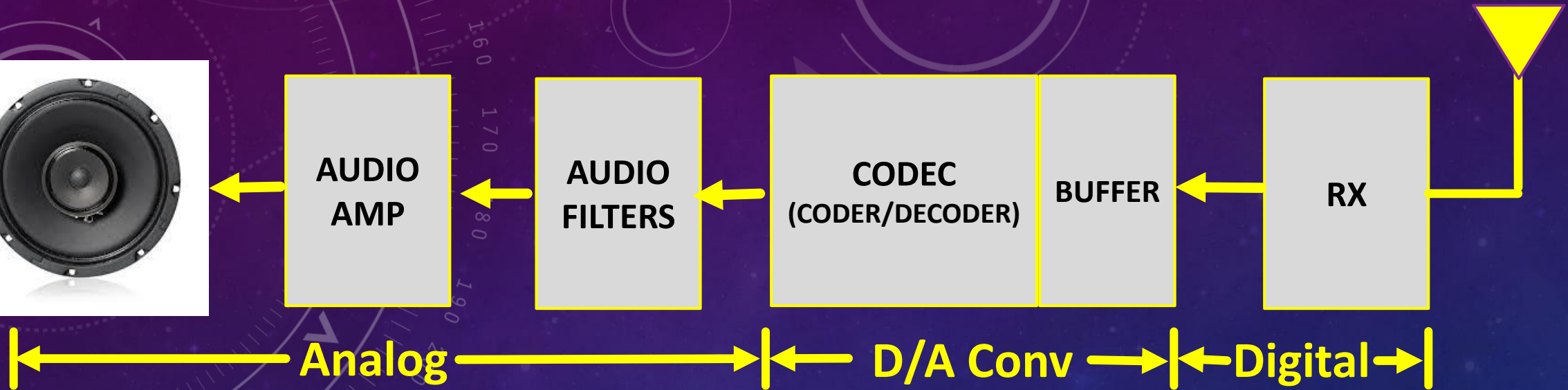


Transmission

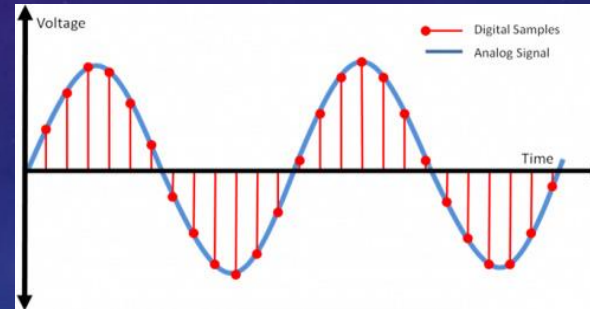


The process of sampling a conventional analog signal, converting each sample to a binary value, and then sending this binary data Instead of the original analog signal.

DMR – IS A DIGITAL VOICE MODE

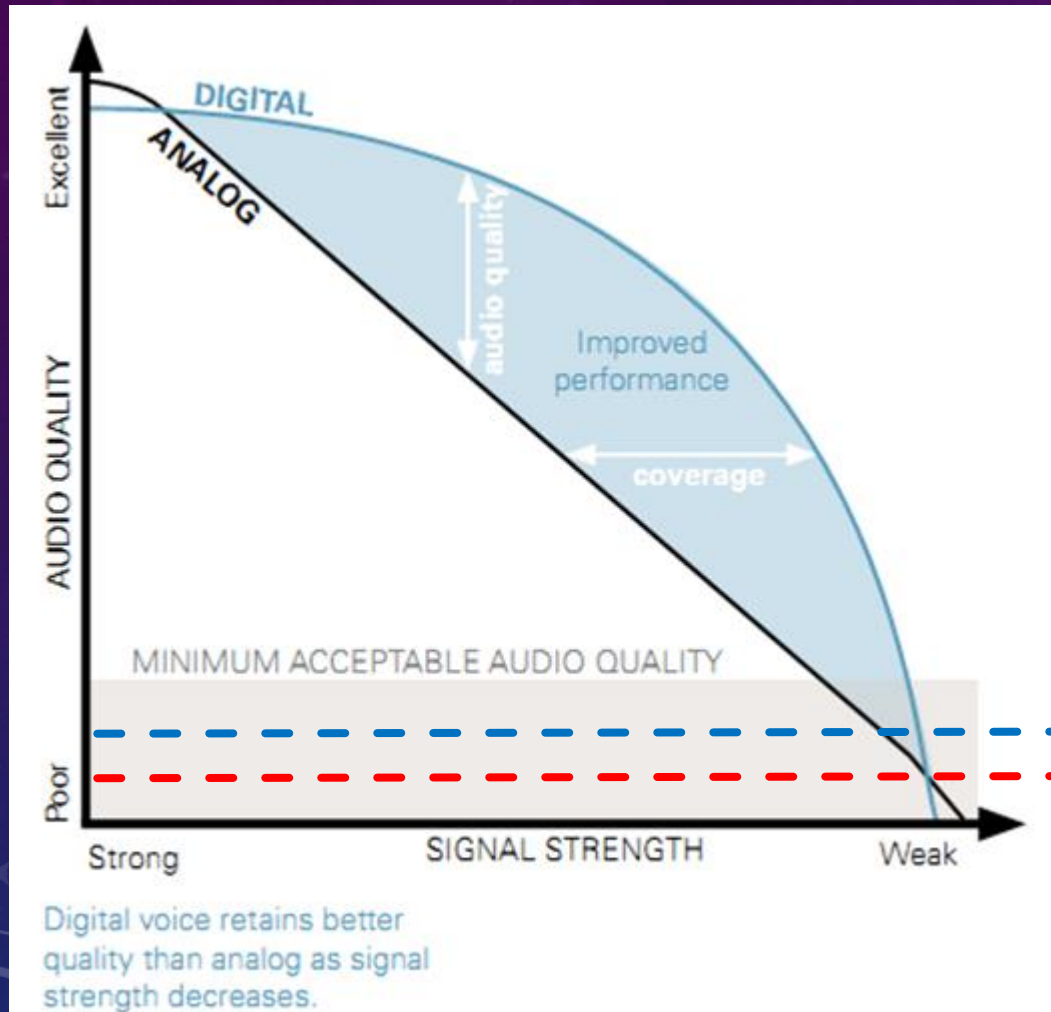


Reception



The process of taking the received binary data and converting it back into a replica of the original waveform.

AUDIO CHARACTERISTICS OF DMR



- ❑ Absolutely no hissing, popping, static or noise
- ❑ With analog FM, as the signal strength gets weaker, background noise increases to the point of unintelligibility.
- ❑ With DMR (or any other digital voice mode), as the signal strength gets weaker there is no increase in background noise.
- ❑ With DMR, once the signal strength drops below a certain threshold (between blue & green lines) packet loss increases and voices may become hard to understand.

**** This sometimes happens with cell phone calls ****

DMR/ANALOG COMPARISON AUDIO

KB3TWW
Sunbury Press, Inc

Stop 1

Stop 2

Stop 3

Stop 4

Stop 5

Google



Spectrum Efficiency (Time Slots)

Where the bandwidth of an Analog FM signal is 25.0 kHz, the DMR bandwidth is only 12.5 kHz.

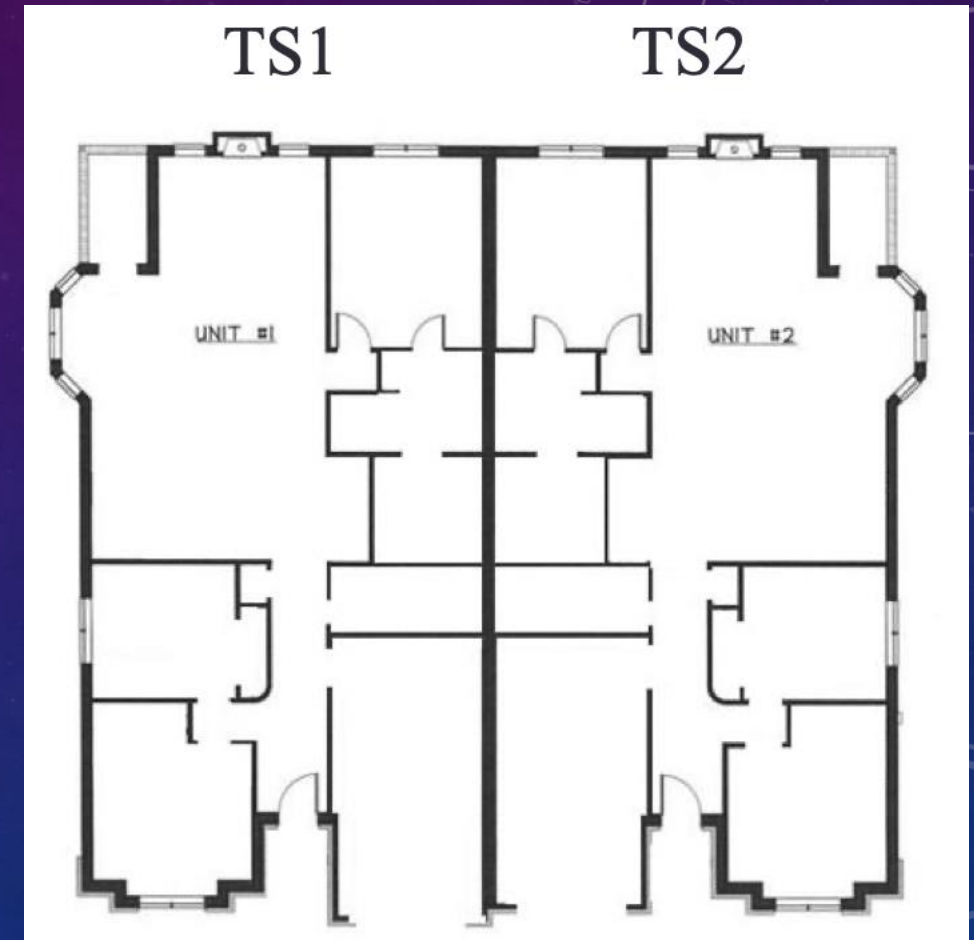


Not only does it occupy half of the required bandwidth, but it has the ability to transmit two separate conversations at the same time. This is accomplished by digitally splitting a transmitted signal into alternating 30 millisecond slices referred to as **Time Slots**.

Timeslots work like a duplex house

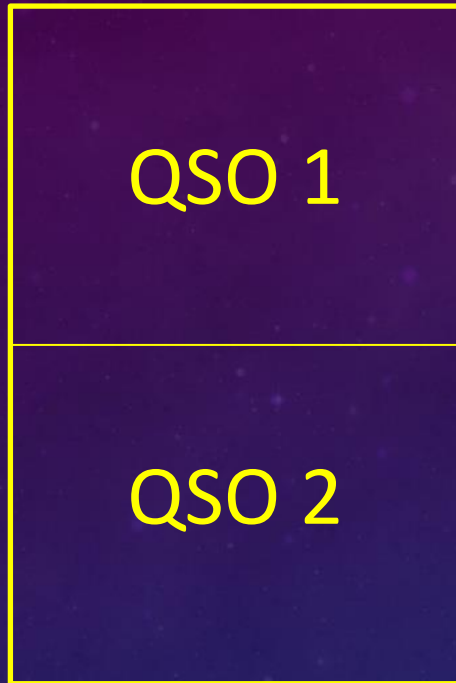


Each house has its own set of rooms. These are referred to as Talk Groups (TG).



THE DMR REPEATER

Color Code



TS1

TS2

TX Freq
RX Freq
Color Code
Time Slot
Talk Group

TS2





The role of the DMR server



LOCAL



REGIONAL

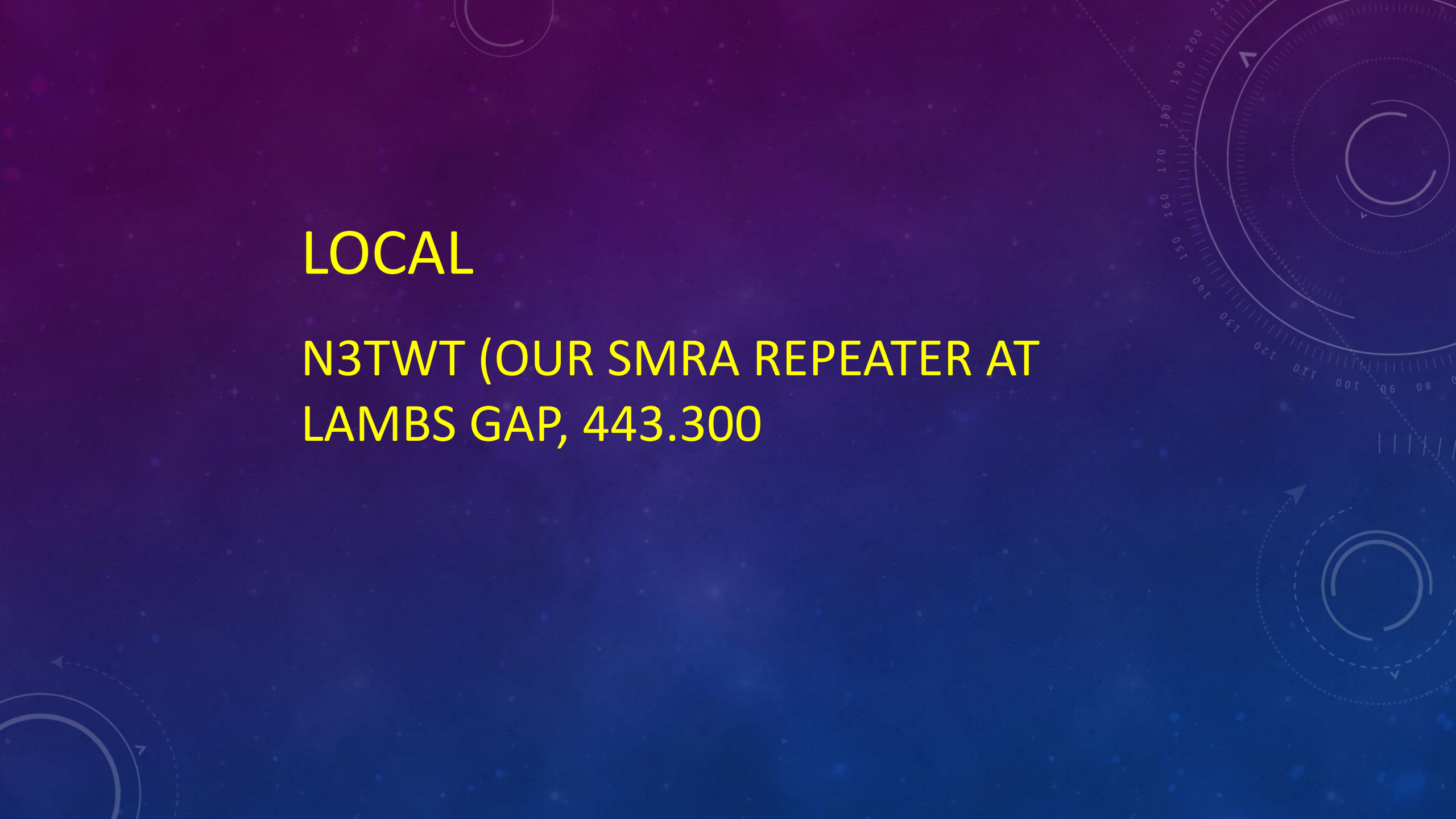


NATIONAL



INTERNATIONAL



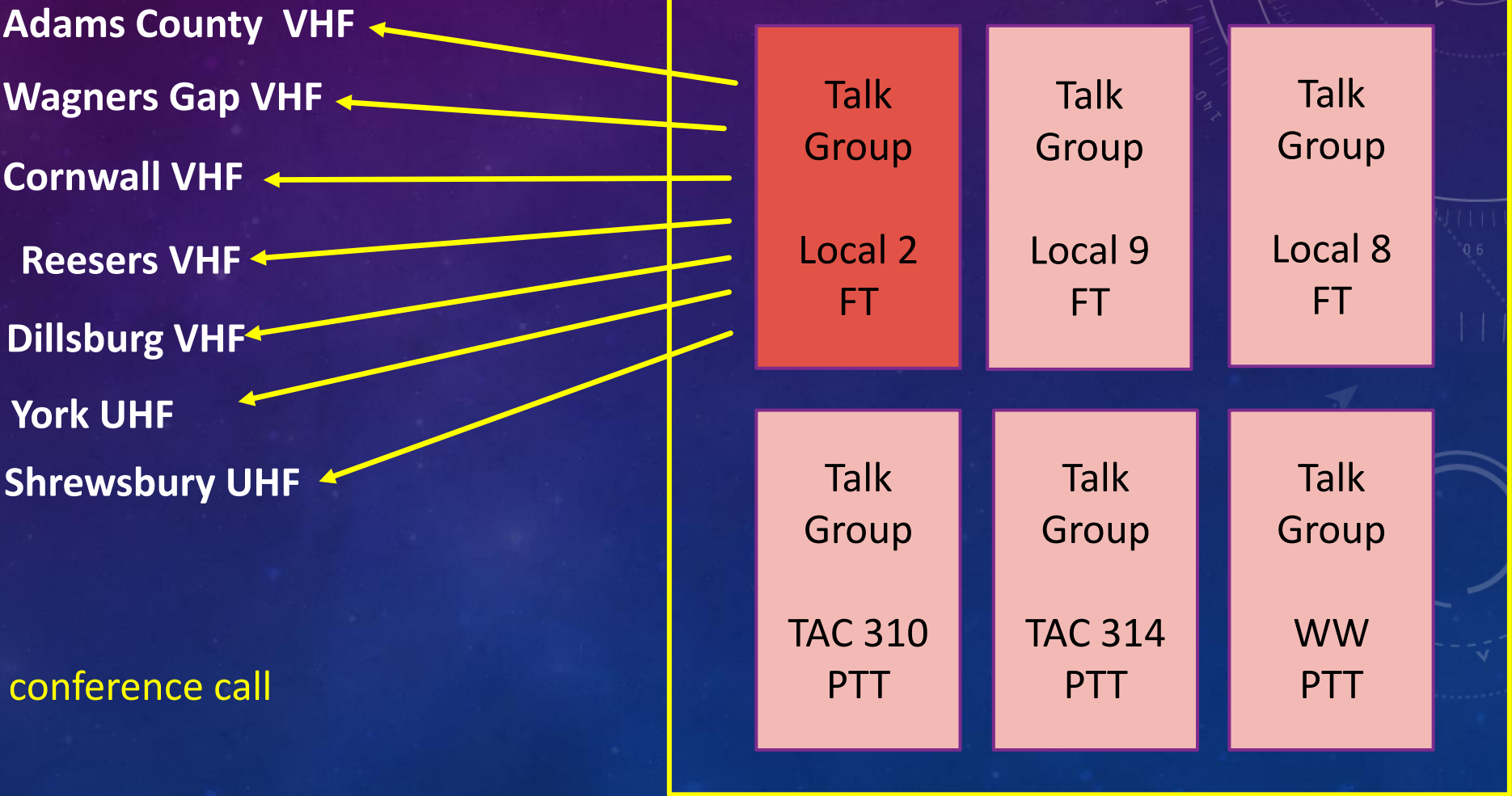


LOCAL

N3TWT (OUR SMRA REPEATER AT
LAMBS GAP, 443.300

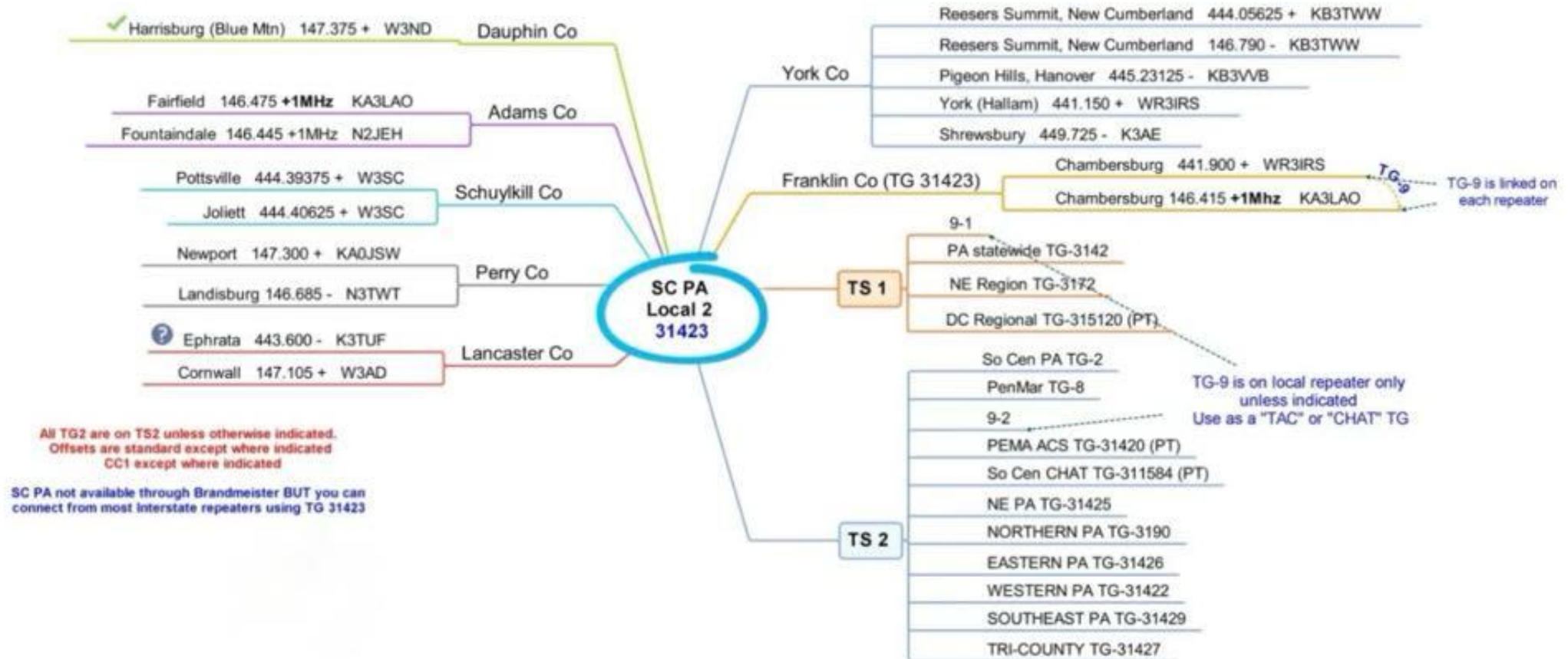
REGIONAL

LOCAL REPEATERS INTERCONNECT FOR SIMULTANEOUS TRANSMISSION



Similar to a conference call

South Central PA (SC PA)



updated 2023-03-08

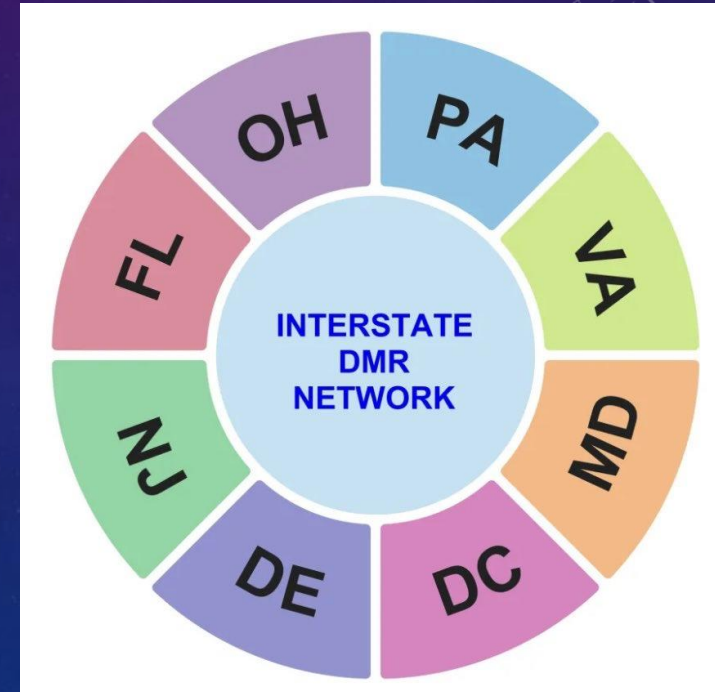
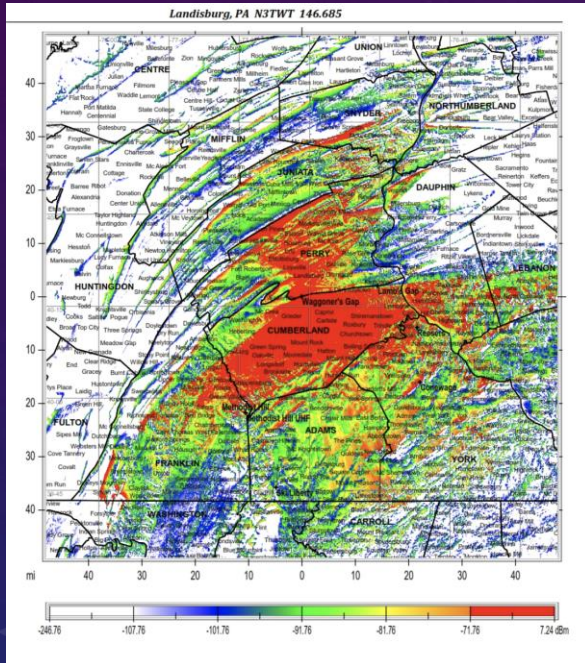
NATIONAL

THE INTERSTATE DMR NETWORK

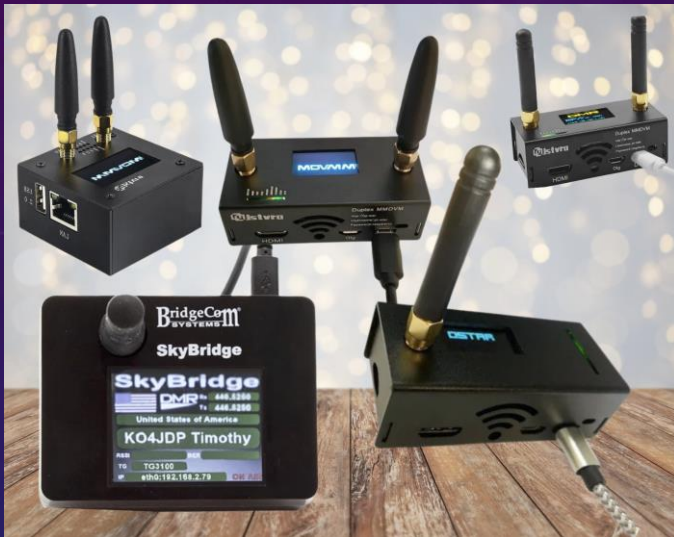
OUR WAGONERS GAP DMR REPEATER IS PART OF THE NETWORK

TALKGROUPS:

WORLDWIDE
NORTH AMERICA
LOCAL
DELMARVA
DELAWARE
WASH DC
DC REGIONAL
MARYLAND
SOUTHERN MD
NEW JERSEY
OHIO
VIRGINIA
WEST VIRGINIA
NORTHEAST REGIONAL
MID-ATLANTIC, SOUTHEAST, SOUTHERN, MOUNTAIN REGIONAL



INTERNATIONAL THE BRANDMEISTER DMR NETWORK



HOTSPOTS
VOIP for DMR Connections



REPEATERS

7379

Full report ➡



HOTSPOTS

20146

Full report ➡



MASTERS

47

Full report ➡



VOICE CALLS

23

Full report ➡

BRANDMEISTER DASHBOARD TUES 17 JUN, 1600Z

A BRANDMEISTER QSO ON WORLDWIDE TALKGROUP 91



303 new alerts 13:06:03 UTC 17 Jun 2025

Search... by Callsign Database News Forums Store Swapmeet Resources Contact W3PTH

VU3NZJ  India

SAJI E ""SAJI "" THOMAS
THAIKKADAMPILLIL, ERALIL HOUSE
NORTH PARUR, KL 683513
India

Email: Use mouse to view..

Ham Member Lookups: 5257 

Biography Detail Logbook Log a NEW contact with : VU3NZJ

Lookups 5257 (5568)

See Also [VU3NZJ/VU3NZJ](#)

Nickname "SAJI "

QRZ Record# 2568155

QRZ Admin VU3NZJ

Date Joined 2023-12-01 02:23:01

Last Update 2024-01-27 05:49:50

Class re

Latitude 10.145300 (10° 8' 43" N)

Longitude 76.229206 (76° 13' 45" E)

Grid Square MK80cd

Geo Source User supplied

Bearing 31.8° NNE  (from W3PTH)

Distance 8567.2 mi (13787.6 km)

Long Path 16289.6 mi (26215.6 km)

Sunrise 00:34:35 UTC

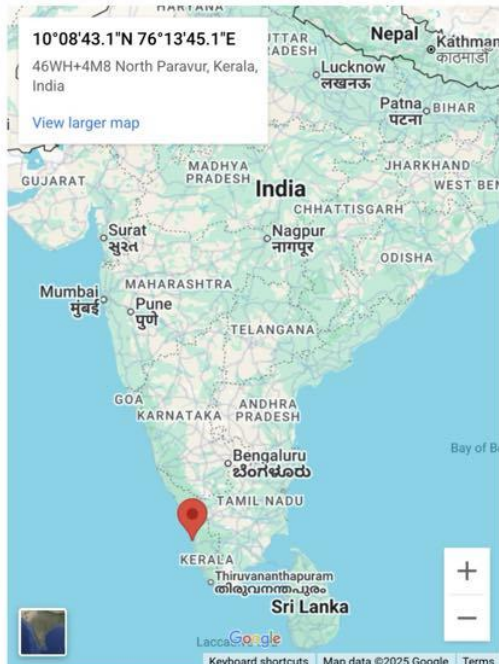
Sunset 13:17:29 UTC

ITU Zone 22

CQ Zone 14

Born 1966

QSL by eQSL? Yes (e.g. Will this ham QSL with eQSL?)



10°08'43.1"N 76°13'45.1"E
46WH+4M8 North Paravur, Kerala,
India

[View larger map](#)

Explore on HamGrid Maps



SO....

DMR OFFERS ANOTHER WAY TO COMMUNICATE WITH OTHER AMATEUR RADIO OPERATORS

THE DIGITAL FEATURES PROVIDE NON-HISSING, STATIC-FREE CONVERSATIONS

THE SOPHISTICATION OF DMR SERVERS AND THEIR COMPONENTS PERMIT LOCAL, REGIONAL, NATIONAL AND INTERNATIONAL QSOs ON THE SAME REPEATER FREQUENCY

DMR IS AN EXCELLENT WAY FOR LICENSED TECHNICIAN CLASS HAMS TO MAKE INTERNATIONAL CONTACTS THROUGH A HOTSPOT

THE PRICE OF A REASONABLE DUAL USE ANALOG/DMR HT IS COMPETITIVE TO MAKE IT A BENEFIT WHEN YOU DECIDE TO UPGRADE YOUR RADIO