



BrandMeister
DMR Master Server



DMR-MARC
Motorola Amateur Radio Club Worldwide Network



DMRplus

DMR NETWORKS BASICS

How they are accessed and linked



DMR

DMR NETWORKS IN AMATEUR RADIO

- DMR-MARC (and C-Bridge based repeaters)
 - Maintains database of user IDs for all DMR networks
 - Repeaters only Connected via C-Bridges to Main network
- DMRplus
 - Ties to legacy Hytera network
 - Allows connection of hotspots and non Moto repeaters
- Brandmeister
 - Open network allows homebrew repeaters and hotspots
 - Repeaters all have default set of TG depending on location

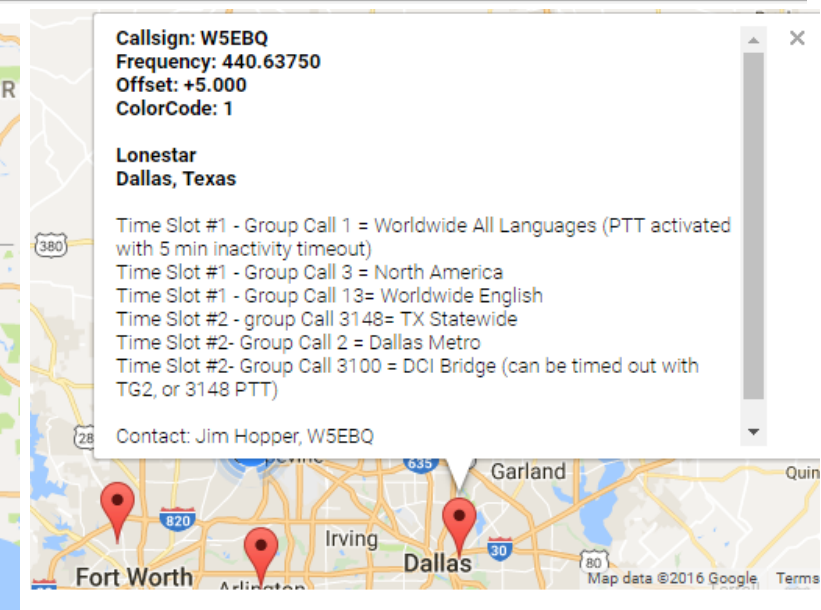
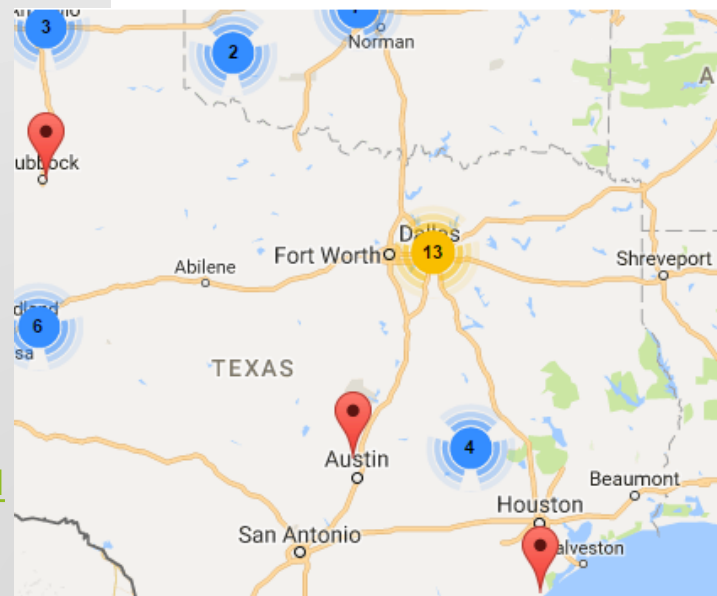
DMR-MARC / C-BRIDGE NETWORKS

- All connections through repeaters connected to C-Bridges
- No direct connection of home brew repeaters or hotspots
- Talkgroup structure no reflectors used
- Repeater can offer any TG that is available on their C-Bridge
- Not all TG are available on every C-bridge (state and regional)
- Selection is done via TG settings channels in radio (code Plug)
- Need to know what TG is available and on what Time Slot
- Info must be programmed in radio to access TG

DMR-MARC INFO RESOURCES

- <http://dmr-marc.net/repeaters.html>
 - Lists Repeaters on map can drill down
 - Zoom in on map to see individual repeaters
 - Click on repeater and get specific info
 - Callsign and Contact
 - Frequency and offset
 - Color Code
 - Time Slot and Talk Group setup
- <http://dmr-marc.net/>
 - General info on network
 - New repeaters and Database
- <http://www.cqdmrmap.com/>
 - Similar Map to above but lists all networks
 - Is usually more up to date than DMR-Marc site
- [Repeater Book DMR Search](#)
- <http://www.k4usd.org/>
- <http://www.trbo.org/cBridge/network.html>

DMR-MARC Networked Repeaters



DMRplus

- Allows connection of non Moto Repeaters to network
 - Most repeaters in Europe very few left in USA on DMRplus
 - Legacy Hytera network
- Allows hotspots
 - DV4Mini
 - Shark RF Open Spot
 - DVMega
- Uses combination of Talkgroups and Reflectors
 - Repeaters usually TG on TS1 and TS2 for reflectors.
 - TG setup in radio as a group call contact
 - Reflectors use TG9 and Private call to reflector number to connect
 - Private call to 4000 to disconnect a reflector
 - Many reflector numbers mirror Brandmeister reflectors but are not linked

DMRplus INFO RESOURCES

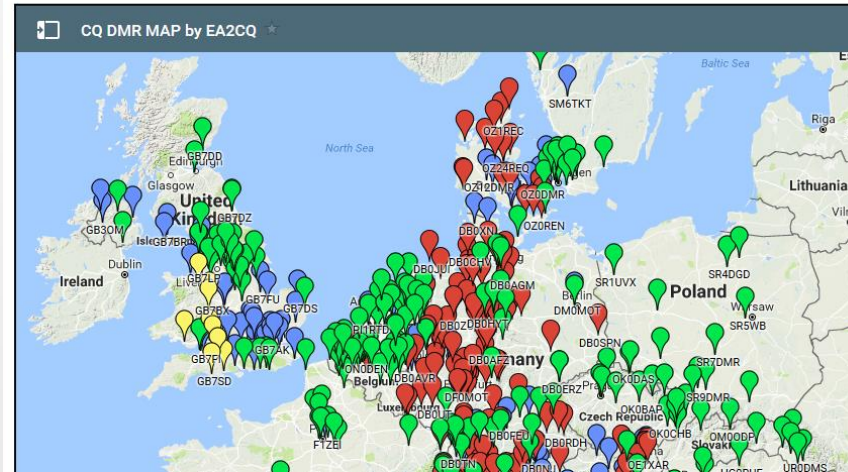
- <http://www.cqdmrmap.com/>
 - Map lists all network repeaters
 - Drill down and click on repeater for info
- [Repeater Book DMR Search](#)
- [DMRplus Repeater google maps](#)
 - Similar to CQ DMR map above but only DMR+
 - Has repeater info when you drill down
- <http://ham-dmr.ch/>
- [DMRplus dashboard](#)

CQ DMR MAP by EA2CQ

Email me if you want to add, remove, or modify a repeater: ea2cq@tarrat.org.

The map of the 3 ham DMR networks: DMR-Marc, DMR+ and BrandMeister (Updated: 29/09/16)

DMR-MARC DMR+ BRANDMEISTER OTHER

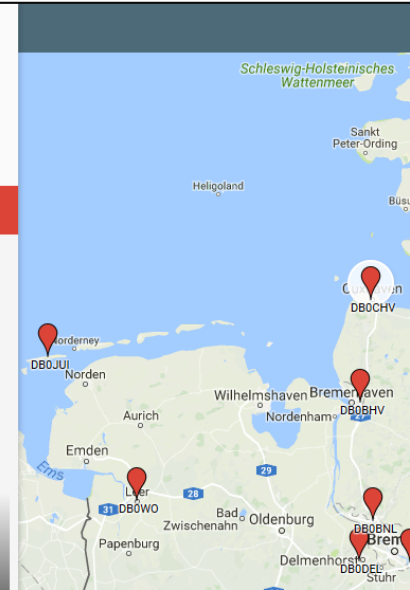


DMR-MARC DMR+ BRANDMEISTER OTHER

← DB0CHV

nombre
DB0CHV

descripción
438,275MHz -7,6MHz CC:1
TX-Antenne:113,50müG RX- Antenne
137,50m üG Home Reflektor 4003.



DMRplus - Repeater

68,190 views

SHARE

☒ Hytera Repeater DMRplus Network

Map registry and legend

Hytera Net INFORMATION

Hytera Talkgroup INFO

DB0AAT

... 267 more



← DB0MY

Name
DB0MY

Beschreibung
438,3625 MHz -7,6 MHz CC:1



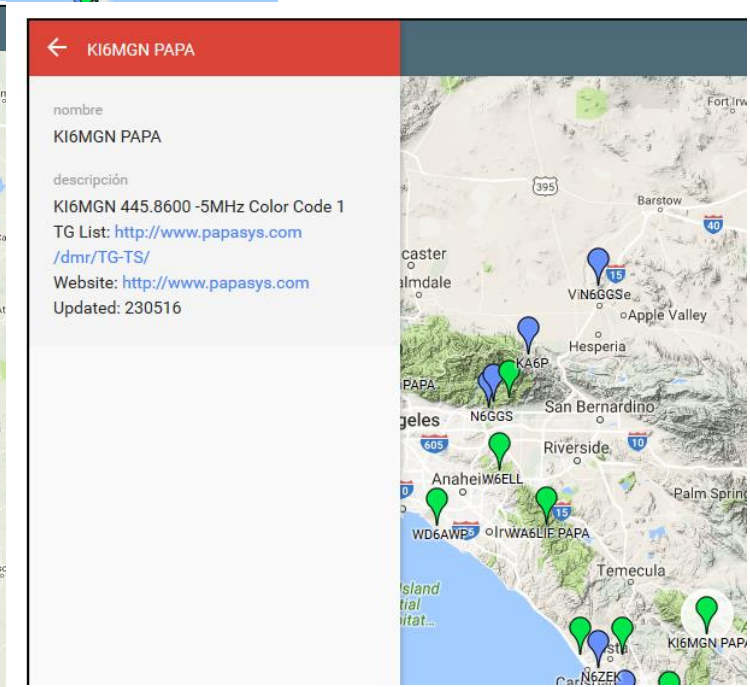
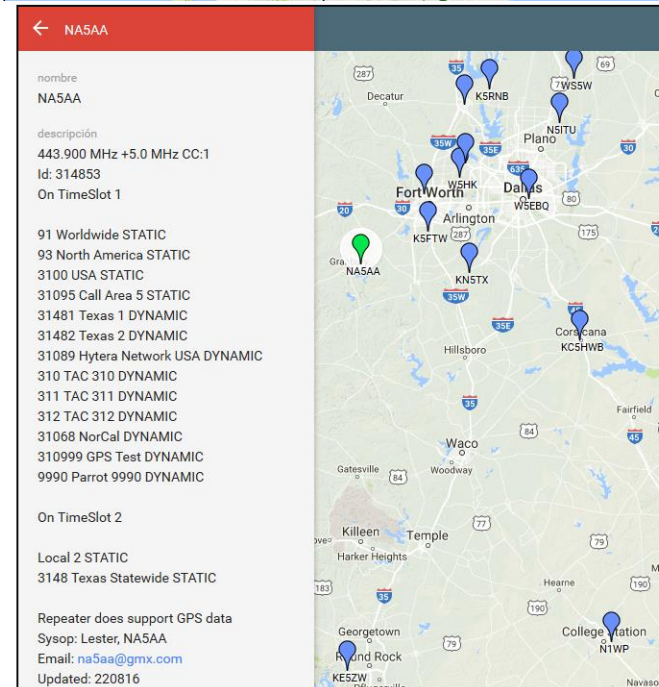
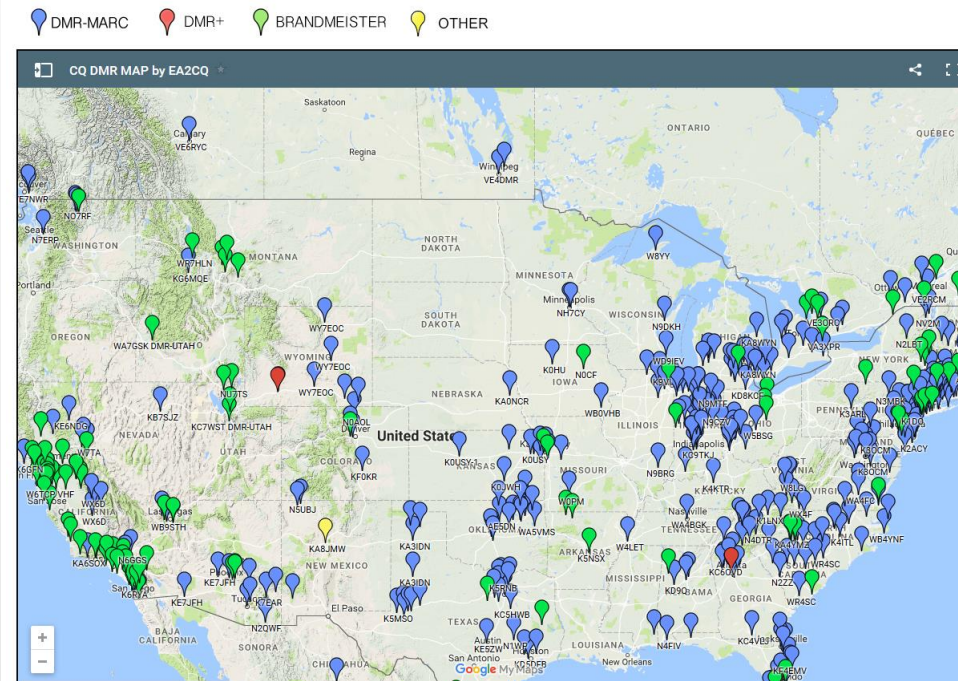
BRANDMEISTER

- Allows connection of any brand repeater or home brew repeater running MMDVM board
- Allows connection of Hostspots via HomeBrew protocol
 - DV4mini (with the proper software MF2)
 - DVMega based hotspots RPI or bluestack/BlueDV
 - Open Spot
- Use Talkgroups via group call programmed in radio
- Use Reflectors on TG9 connected via a private call to number
- Repeaters have default configuration based on location
 - Repeater owner can request changes to this config
- Decentralized network with Master servers located globally
- Hoseline website allows monitoring audio via internet

BRANDMEISTER INFO RESOURCES

- <http://www.cqdmrmap.com/>
 - Map lists all network repeaters
 - Drill down and click on repeater for info
- <https://brandmeister.network/>
 - Last heard dashboard
 - List of hotspots and repeaters connected
 - Status and connections to all master servers
- [Brandmeister Hose line site](#)
 - Streaming audio from talkgroups
 - Scan up to 5 talkgroups at once
 - List of last heard users on all TG
- [Brandmeister 3148 FB files section](#)
 - Check the many documents here for info
- [Papa System DMR site](#)
 - A lot of good info on Brandmeister

The map of the 3 ham DMR networks: DMR-Marc, DMR+ and BrandMeister (Updated: 29/09/16)



BRANDMEISTER

- US Default Repeater setup
 - Default is based on location of repeater
 - Any BM TG available as Dynamic PTT
 - Available on either TS but TS 1 recommended
 - Reflectors on TG9 can be linked on TS 2
 - Repeater owners can request changes to this
 - Control panel for repeater owners coming soon
- Hotspot setup (except DV4mini)
 - Connect to any BM TG via group call in radio
 - TG are static until disconnected or moved
 - Key up radio on group call 4000 to disconnect
 - Key up on another TG to move to new TG
 - Reflectors via TG9 connect via Private call
 - Reflectors remain on until disconnected
 - Disconnect with private call to 4000
 - Most Reflectors have a linked TG available
- DV4mini setup
 - All connections are via TG9 to BM
 - Reflectors via control panel or private call to ref
 - TG access only through extended routing in control panel

Use this information as a starting point for configuring your radio(s) to access the system.

Talk Groups on Time Slot 1		
Number	Name	Description
91	Worldwide	Worldwide Talk Group
93	North America	North America
3100	U.S.A	Nationwide - Connected to DCI Bridge on DMRX
3109X*	U.S. Area X	Regional Talk Group Based on Repeater Callsign Area
31089**	Hytera Network USA	Talk Group for Legacy DMRPlus Systems in the U.S.

* See list of Regional talk group IDs later in this document.

** Only Static on Legacy DMRPlus Systems

Talk Groups on Time Slot 2		
Number	Name	Description
2 or 9	Local	Local Talk Group as Determined by Repeater Admin
8900*	Local	Local Talk Group for Las Vegas Area Repeaters
31XX**	Statewide	Statewide Talk Group Based on Repeater Location

* Only for Las Vegas Area Repeaters

** See list of Statewide talk group IDs later in this document.

Special IDs on Both Time Slots		
Number	Name	Description
9990 or 310997*	Parrot	Have your Audio Recorded and Played Back to You.
310999	ARS/RRS/APRS	Registration and Location (APRS) Services

* Private Call

BRANDMEISTER TG VS REFLECTORS

- Both available on repeaters or hotspots
- Most reflectors have a linked talkgroup
- Many TG do not have a linked Reflector
- Statewide TG do not have linked Reflectors
- You can use either if they are linked
- TG list and reflector vs TG list are both available in files section of BM 3148 FB page
 - [Brandmeister 3148 FB files section](#)

4400	TG2350 UK
4401	TG2351 UK Wide
4402	TG2352 UK DV4 talk
4403	TG2353 UK 3
4404	TG2354 Ireland
4405	TG2355 Scotland
4406	TG2356 Wales
4407	TG2357 UK 7
4408	TG2358 UK Test
4433	TG2625 Germany (Bridge to XRF433)
4500	TG204 Nederland (204)
4501	TG2041 Nederland Noord
4502	TG2042 Nederland Midden
4503	TG2043 Nederland Zuid
4504	TG2044 Nederland Oost
4639	TG3100 USA – Nationwide
4640	TG31090 USA – Area 0
4641	TG31091 USA – Area 1
4642	TG31092 USA – Area 2
4643	TG31093 USA – Area 3
4644	TG31094 USA – Area 4
4645	TG31095 USA – Area 5
4646	TG31096 USA – Area 6
4647	TG31097 USA – Area 7
4648	TG31098 USA – Area 8
4649	TG31099 USA – Area 9
4710	TG4710 Portugal-1

BrandMeister
DMR Master Server

Talkgroups

New York	3136	TAC 7	8957
North Carolina	3137	TAC 8	8958
North Dakota	3138	TAC 9	8959
Ohio	3139	XRF007 B	9107
Oklahoma	3140	*RUSSIA* (EchoLink)	9504
Oregon	3141	Parrot	9990
Pennsylvania	3142	NorCal Meter	9999
Rhode Island	3144	Region Keistad	20421
South Carolina	3145	Region IJsselmond	20441
South Dakota	3146	XRF490 B	22801
Tennessee	3147	UK - North West	23520
Texas	3148	Scotland	23550
Utah	3149	UK - North East	23560
Vermont	3150	UK - M62 Corridor	23562
Virginia	3151	Poland Tech	26040
Washington	3153	Canada BC 1	30271
West Virginia	3154	Canada BC 2	30272
Wisconsin	3155	Cal 1	31061
Wyoming	3156	SoCal	31066
XE 1 - Mexico	3341	SoCal 1	31067
XE 2 - Mexico	3342	NorCal 1	31069
XE 3 - Mexico	3343	Hytera USA	31089
Panama City	7141	USA - Area 0 4640	31090
Colon Panama	7142	USA - Area 1 4641	31091
Belgium Vlaams	7551	USA - Area 2 4642	31092
XRF390 A	8500	USA - Area 3 4643	31093
XRF077 D	8505	USA - Area 4 4644	31094
XRF055 C	8506	USA - Area 5 4645	31095
XRF036 B	8507	USA - Area 6 4646	31096
XRF003 D	8510	USA - Area 7 4647	31097
Crossroads Statewide	8710	USA - Area 8 4648	31098
TAC 1	8951	USA - Area 9 4649	31099
TAC 2	8952	BYRG	31201
TAC 3	8953	XRF210 D	31210
TAC 4	8954	XRF054 C	31254
TAC 5	8955	Mi5-STATEWIDE1	31261
TAC 6	8956	Mi5-STATEWIDE2	31262

LINKED GROUPS BETWEEN NETWORKS

Name	BM	DMR-Marc	DMR+
USA NW 3100	TG 3100	DCI Bridge TG 3100	NA
TAC 310	TG 310	TG 310 PTT	NA
TAC 311	TG 311	TG 311 PTT	NA
TAC 312	TG 312	TG 312 PTT	NA
DMR+ USA	NA	TG 133	TG 133
DMR+ UK	NA	TG143	TG143
DMR+ S Pacific	NA	TG153	TG 153
31089 HYT USA	TG 31089	NA	TG 31089
BM 3148 TX SW	TG 3148	TG 9000	NA

- Known TG linked between the networks listed here
- The 4 first TG are linked between BM and DMR-Marc at the core level so available to any repeater via their C-bridge on DMR-MARC
- The BM 3148 TX is linked only at the C-Bridge level only on a few so it is only available on repeaters on them.
- Legacy Hytera systems on DMR+ linked to BM TG 31089

CONNECTING TO ANOTHER USER

- You need to know how each person is connecting and which network to know what TG/Ref you could connect on if at all.
- EX1: BM Hotspot to another BM Hotspot
 - You can connect on any BM TG you want.
 - If you know they monitor their Statewide you could call them there
 - You could arrange to meet on one of the BM TAC channels if you like
 - You can even make up a number as long as its not used at connect
 - You could also use any BM reflector you like
 - Make a Private call to the their DMRID number via contacts or manual dial on the radio menu. Use TG 9 and disconnect from reflectors or TG first.
- EX2: BM Hotspot to a BM Repeater user
 - You could connect direct to them on a TG static on their repeater
 - Their Statewide group or their Call zone group both are static
 - They can activate any BM TG on TS 1 as PTT and call you there

CONNECTING TO ANOTHER USER

- EX3: BM Hotspot to DMR-Marc repeater user
 - Your options here are a bit more limited
 - You could try to call them on TG 3100 if that is static on their repeater
 - You could arrange to have them meet you on TG 3100 or one of the TAC channels TAC 310 or the others if they are available on the repeater.
 - You could not talk to them on their statewide TG or any of the other DMR-Marc TG that are not linked to BM
 - None of the Hotspots are able to connect to these TG on DMR-Marc repeaters. It is not an issue with the hotspot but a limitation of the network imposed from the DMR-Marc side.
 - This is one of the biggest issues that confuses new users with a hotspot and wondering why they cant talk to all the local repeater users on the local or statewide TG.
 - This is why we need more repeaters to move to Brandmeister. If you look at the map you see the growing number of green dots vs blue dots on there. CA is a good example almost the whole state has moved to BM. This of course is my personal opinion.