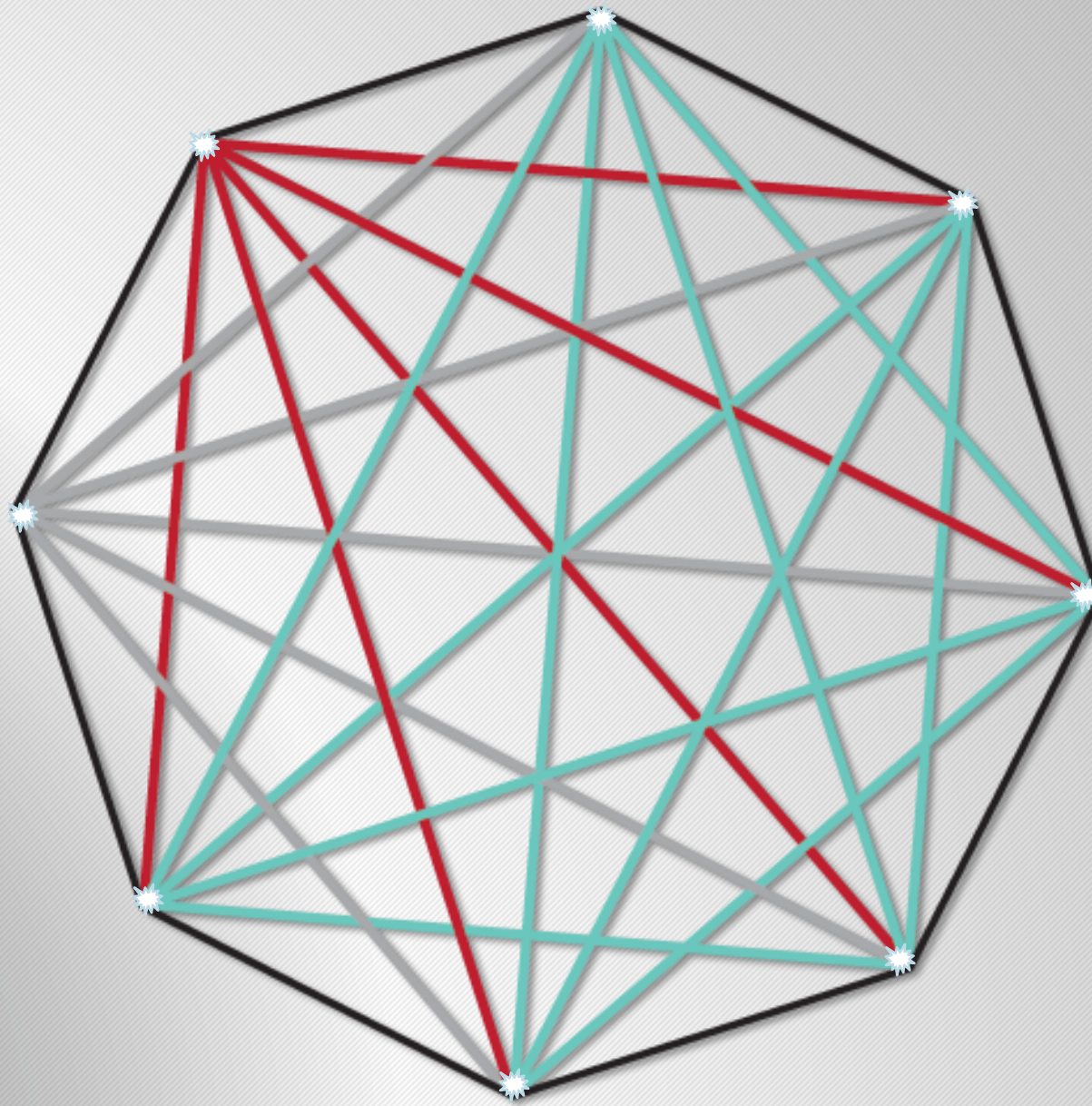
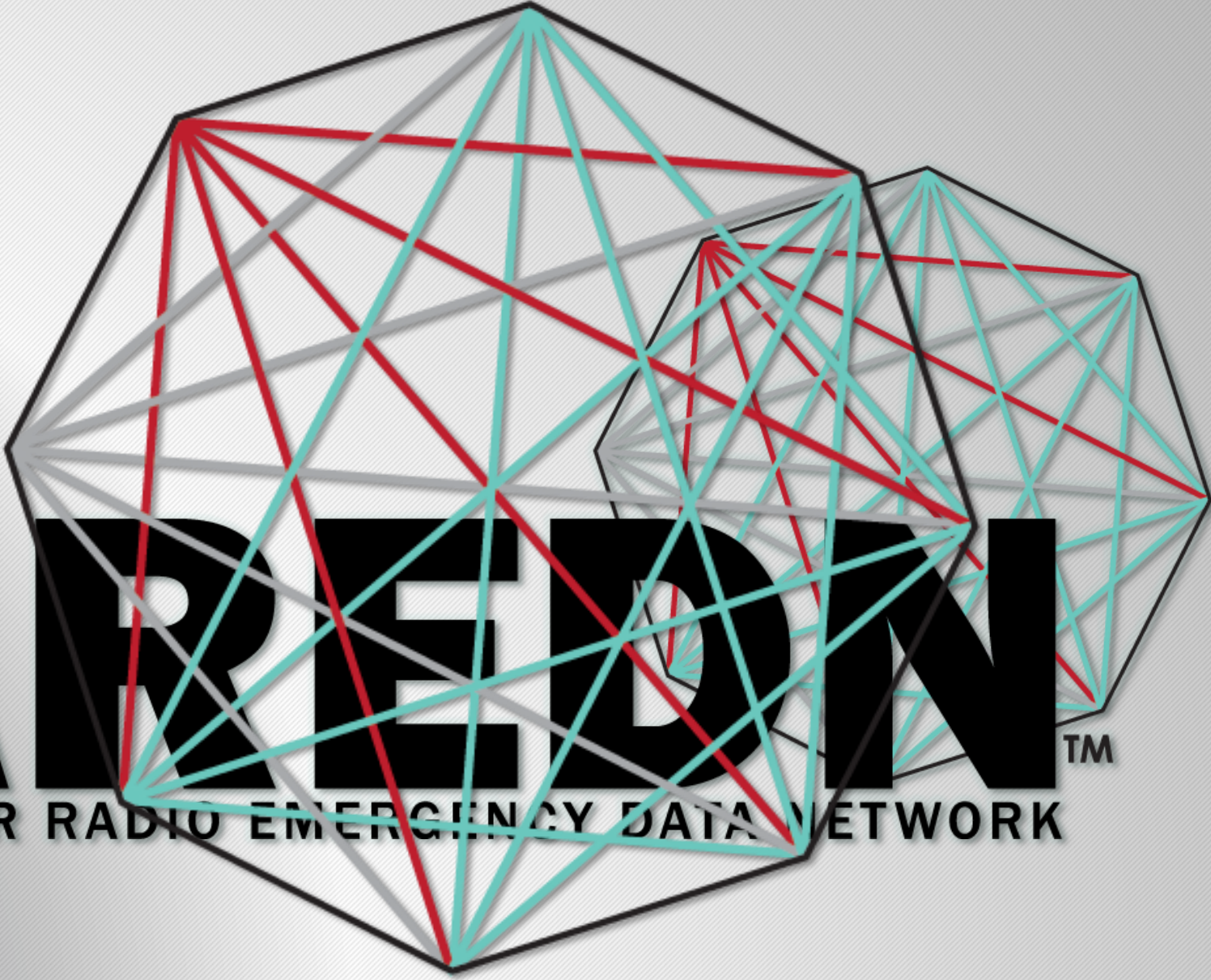
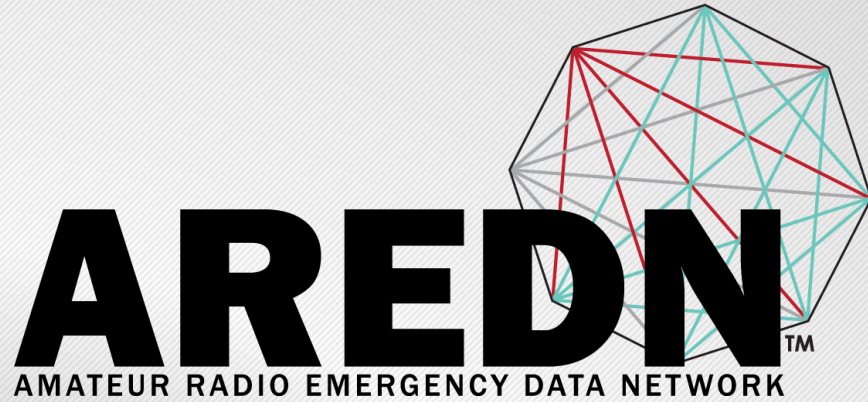






AREDON™
AMATEUR RADIO EMERGENCY DATA NETWORK



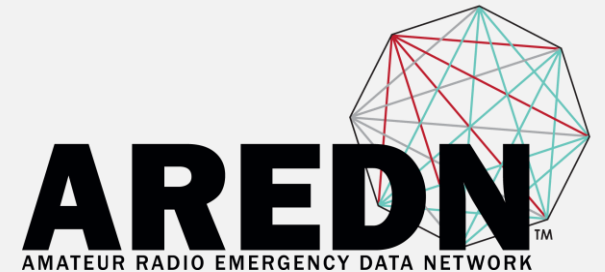
Status Report

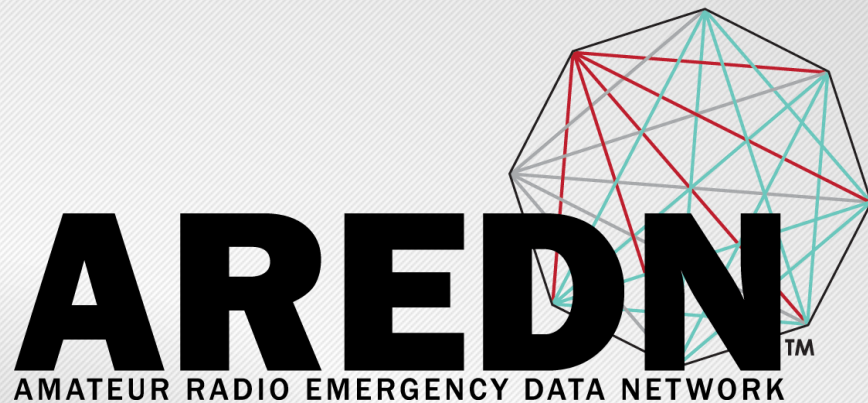
Andre Hansen, K6AH

Yuma Hamfest - 2020
Yuma County Fairgrounds
February 15, 2020

- Team Members
- New Device Support
- Network Growth in the SW Division
- Threats to Our 3 & 5 GHZ Allocations

Presentation Overview

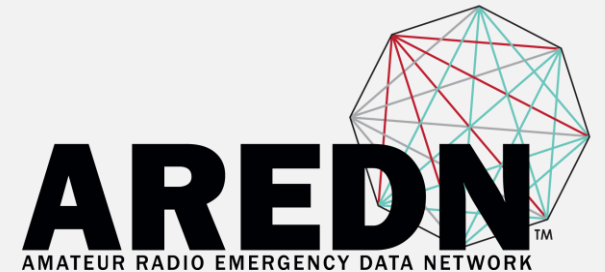




Team Members

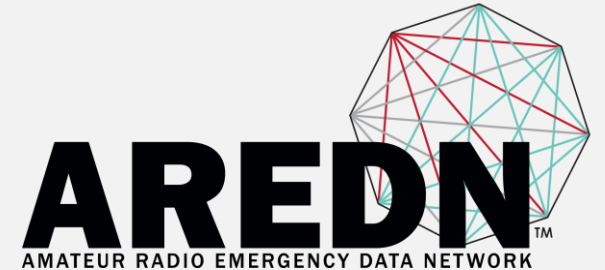
- Randy, WU2S - President, Webmaster
- Joe, AE6XE - Lead Developer
- Darryl, K5DLQ - Lead Developer
- Andre, K6AH - Project Manager

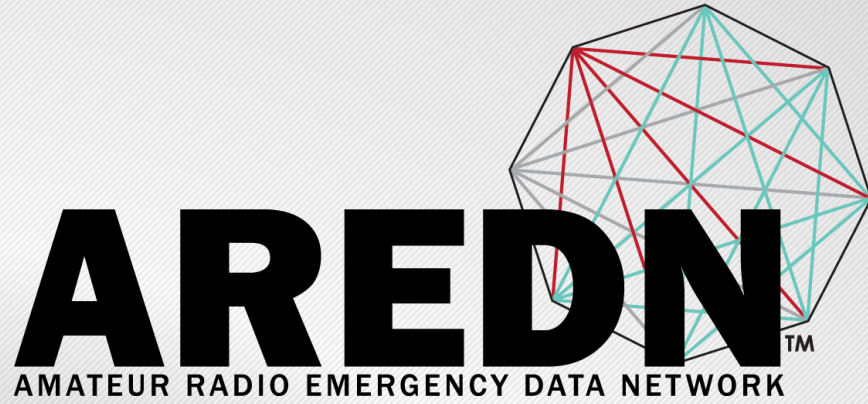
Core Team



- Andrew, KK4ZUZ - New device support
- Eric, KG6WXC - Maps, various
- Steve, KC0EUW - Documentation

Additional Contributors





New Device Support

MikroTik hAP AC Lite RB952Ui-5ac2nD



~\$40

Dual radios (2 & 5 GHz)

200 mW

New and Novel

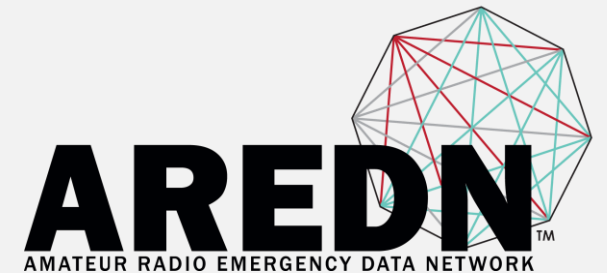


MikroTik LHG XL HP5

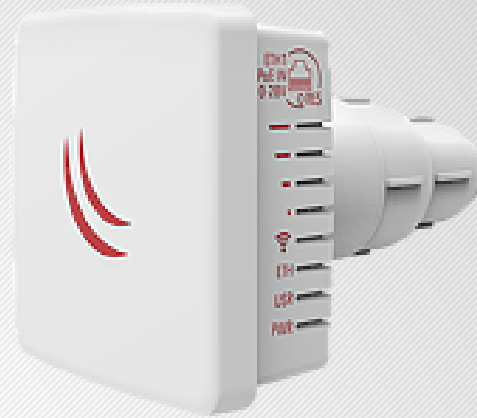


~\$80
27 dBi gain antenna
630 mW

New and Novel



MicroTik LDF 5 - RBLDF-5nD

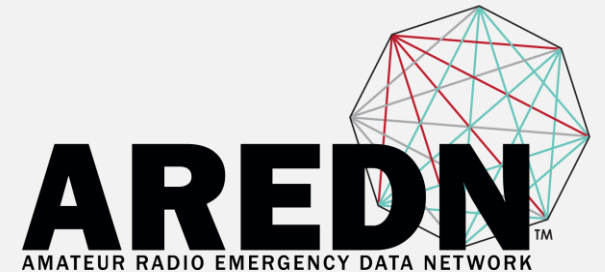


~\$45

315 mW

9 dB antenna + your dish

New and Novel

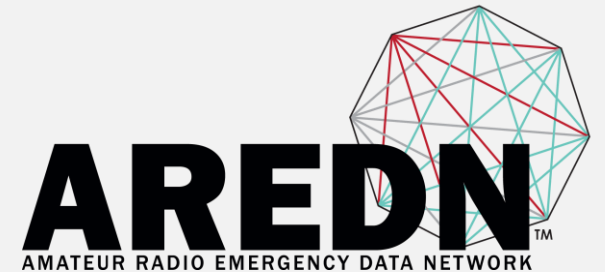


MicroTik RB911G-5HPnD-QRT



~\$140
24dB gain antenna
1000 mW
~12" x 12"

New and Novel





Device Selection Guide

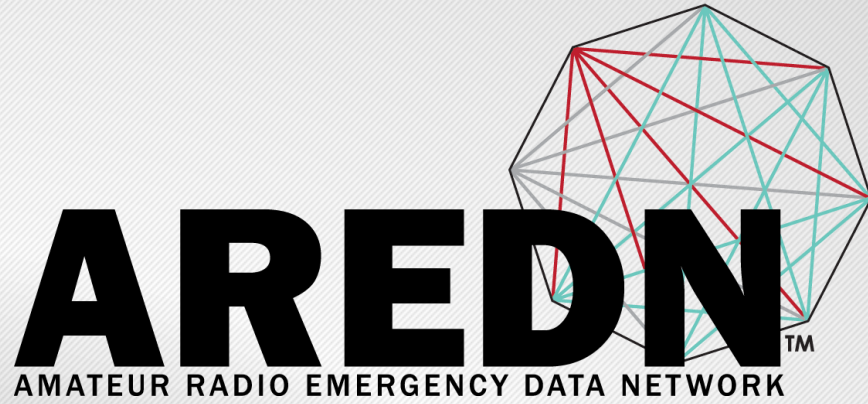
Notes:

- Prices do not include an antenna unless it is integrated in the device.
- Refer to the Supported Platform Matrix for device compatibility.

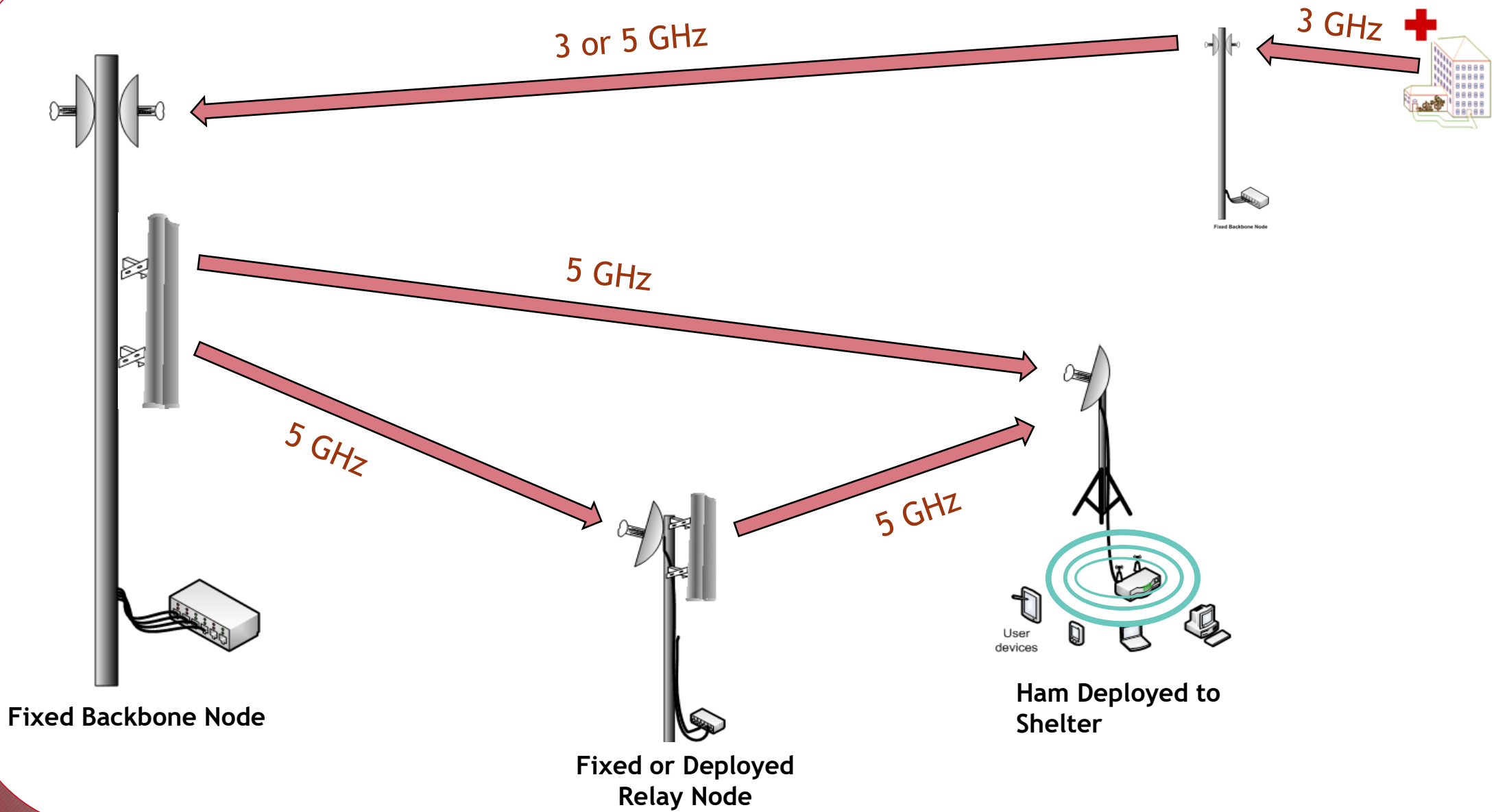
	Manuf	Model	Band	Line	Antenna	RAM	Flash	Power	Ant	IERP	MIMO	Recv	Rel Link	#
1	GL.iNET	AR150	2		Integrated	64	16	18	3	21	No	-84	Very short	
2	GL.iNET	AR300M16	2		Integrated	128	16	23	6	29	Yes	-84	Very short	
3	GL.iNET	AR750	2		Integrated	128	16	23	6	29	Yes	-84	Very short	
4	GL.iNET	USB150	2		Integrated	64	16	20	0	20	No	-84	Very short	
5	Mikrotik	Basebox2	2	0.5	Sector2	128	64	30	16	46	Yes	-96	Long	
6	Mikrotik	Basebox2	2	0.5	RocketDish2	128	64	30	24	54	Yes	-96	Very Long	
7	Mikrotik	Basebox5	5	0.5	Sector5	128	64	30	19	49	Yes	-96	Long	
8	Mikrotik	Basebox5	5	0.5	RocketDish5	128	64	30	30	60	Yes	-96	Very Long	
9	Mikrotik	hAP AC Lite	2		Integrated	64	16	23	0	23	No	-94	Very short	
10	Mikrotik	LDF RBLDF-2nD	2		Sat TV Dish	64	16	28	18	46	Yes	-94	Long	
11	Mikrotik	LDF	5		Integrated	64	16	25	9	34	Yes	-96	Very short	
12	Mikrotik	LHG RBLHG-2nD	2		Integrated	64	16	28	18	46	Yes	-94	Long	
13	Mikrotik	LHG RBLHG-2nD-XL	2		Integrated	64	16	25	21	46	Yes	-94	Long	
14	Mikrotik	LHG RBLHG-5nD	5		Integrated	64	16	25	24.5	49.5	Yes	-96	Long	
15	Mikrotik	LHG RBLHG-5nD-XL	5		Integrated	64	16	28	27	55	Yes	-96	Very Long	
16	Mikrotik	LHG-HP RBLHG-5HPnD	5		Integrated	64	16	28	24.5	52.5	Yes	-96	Very Long	
17	Mikrotik	QRT	5		Integrated	64	128	30	24	54	Yes	-96	Very Long	
18	Mikrotik	QRT	2		Integrated	64	16	35	17	52	Yes	-96	Very Long	
19	TP-Link	CPE210	2		Integrated	64	8	27	9	36	Yes	-95	Short	

Device Selection Guide

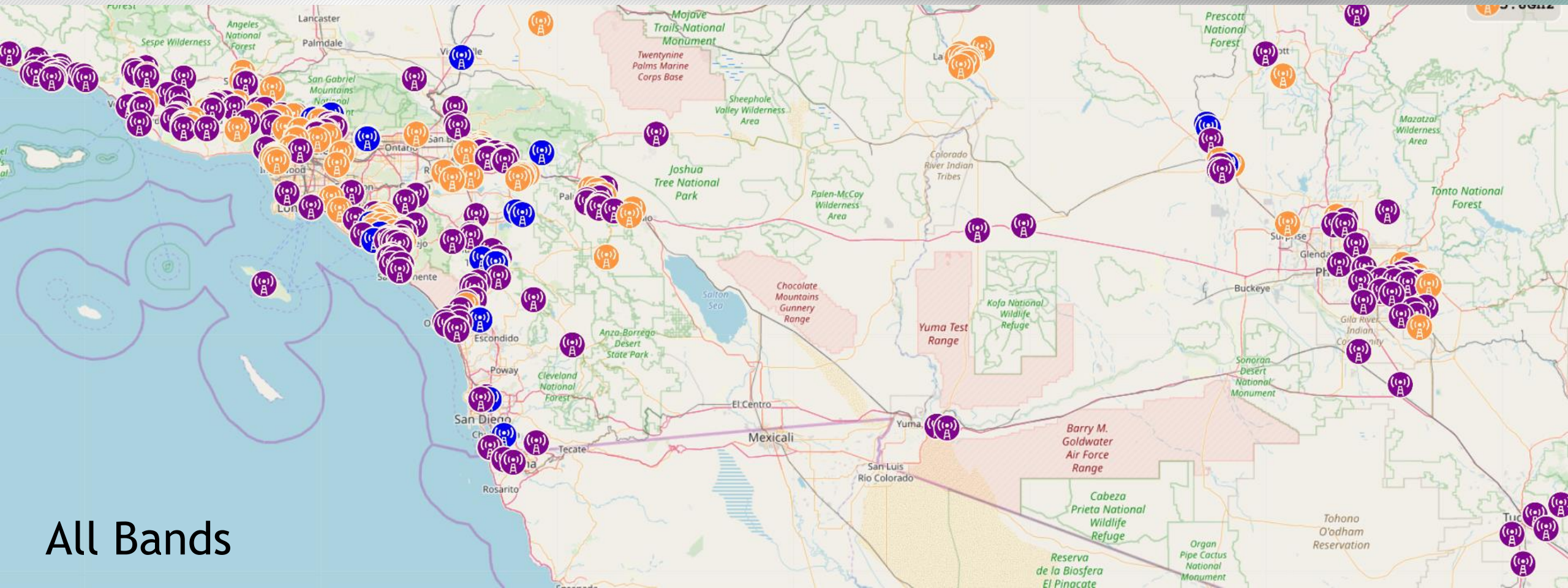




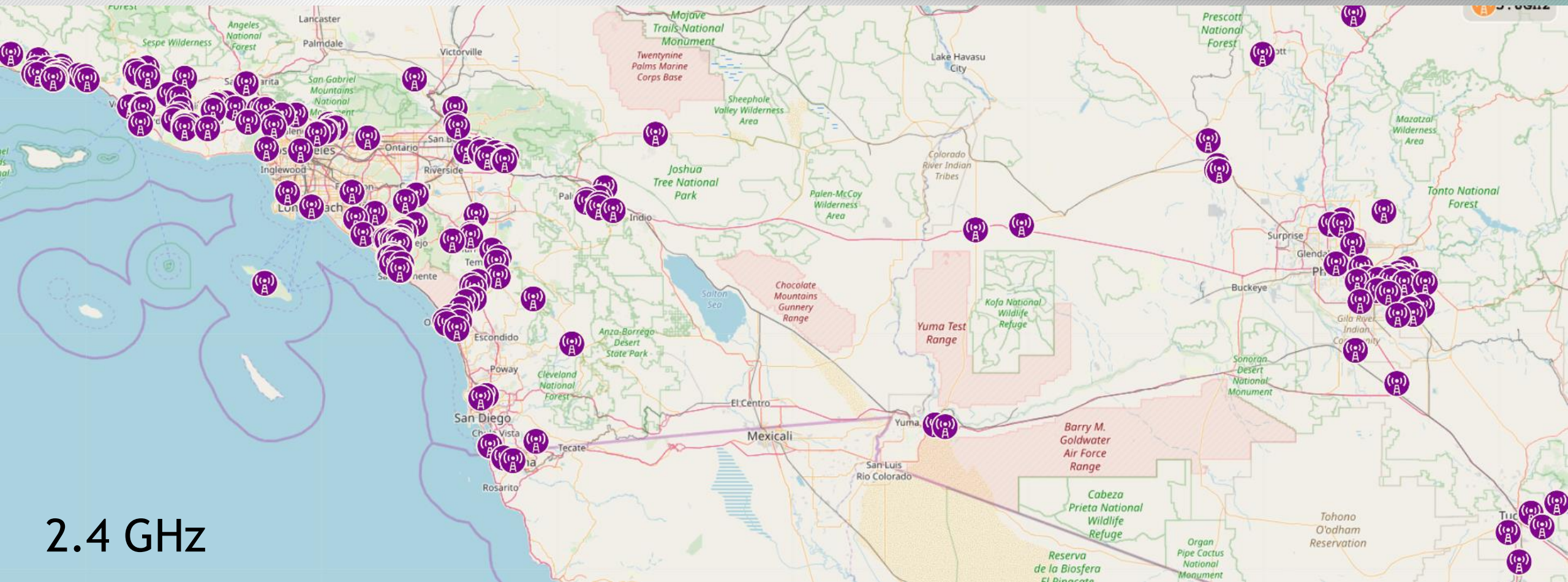
AREDN in the SW Division



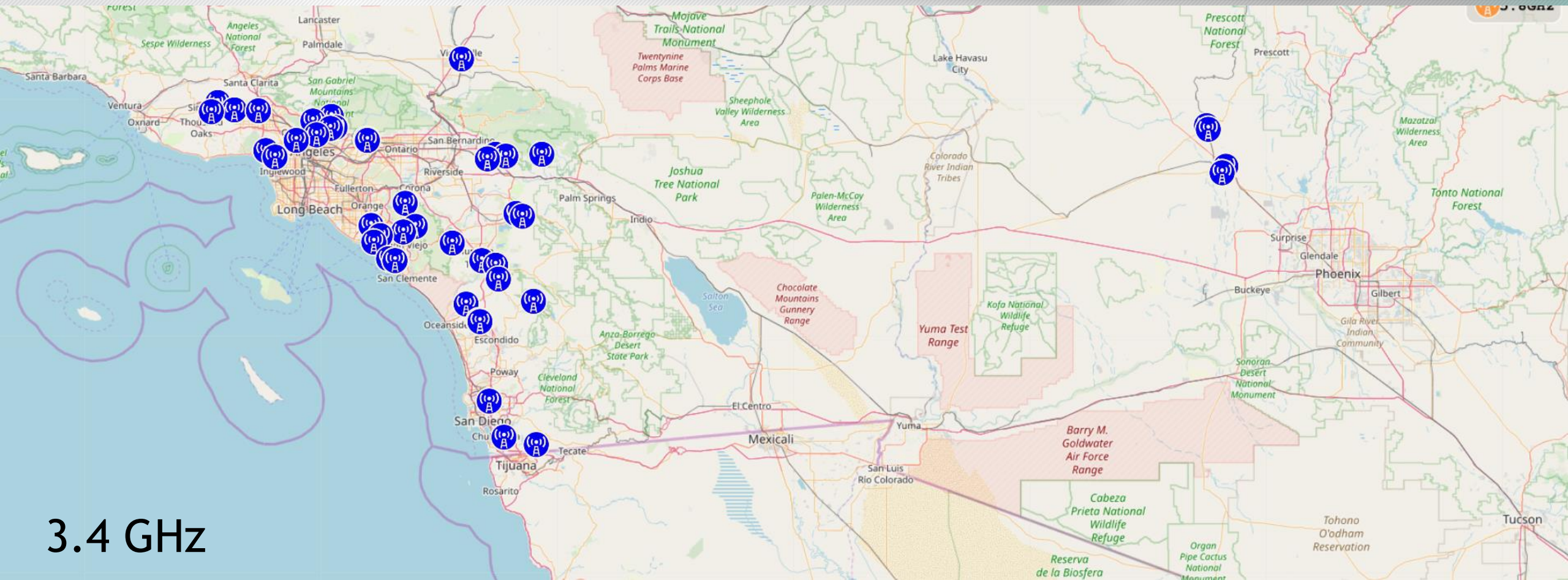
Southwestern Division



Southwestern Division

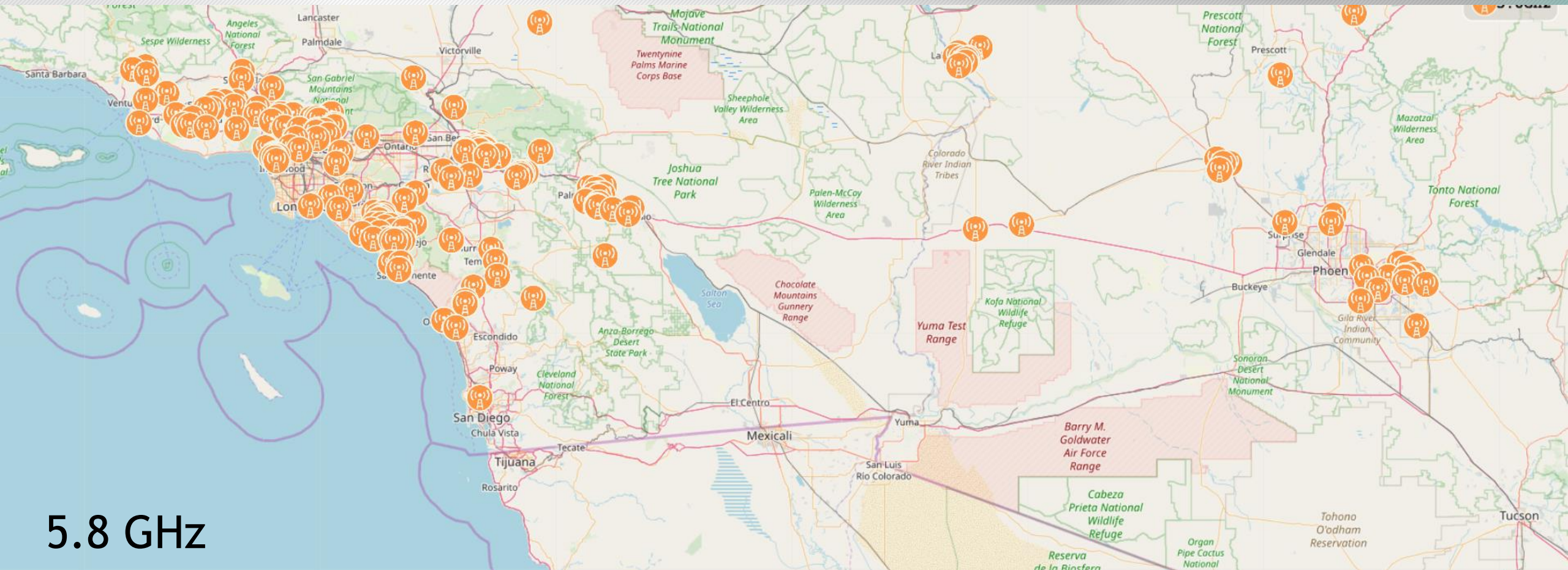


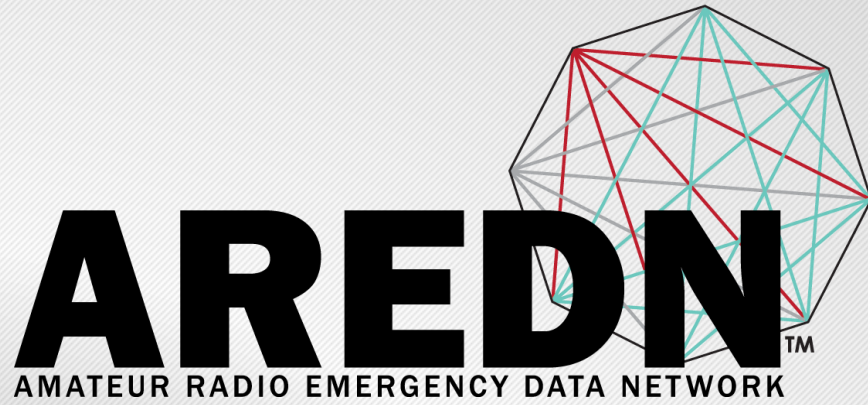
Southwestern Division



3.4 GHz

Southwestern Division





Spectrum at Risk

Bands at Risk - 3.4 GHz Docket 19-348



24 Non-Shared Channels on 3.4 GHz

3.4 GHz	Channel Status Freq	76	77	78	79	80	81	82	83	84	85	86	87
		Ham Band											
		3.380	3.385	3.390	3.395	3.400	3.405	3.410	3.415	3.420	3.425	3.430	3.435
		88	89	90	91	92	93	94	95	96	97	98	99
		3.440	3.445	3.450	3.455	3.460	3.465	3.470	3.475	3.480	3.485	3.490	3.495

- Removes existing nonfederal secondary radiolocation and amateur allocations in the 3.3-3.55 GHz band
- Seeks comment on relocation options and transition mechanisms

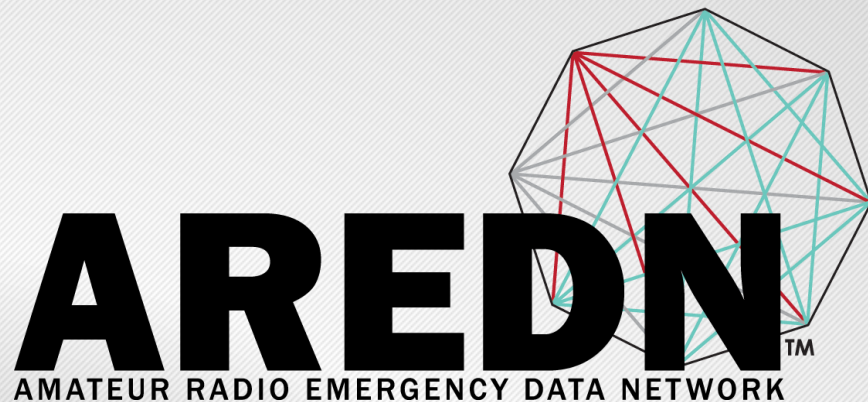
Bands at Risk - 5.9 GHz Docket 19-138



52 Channels, 14 Non-Shared, on 5.8 GHz

5.8 GHz	Channel	133	134	135	136	137	138	139	140	141	142	143	144	145
	Status	Ham Band shared with U-NII-2C/wifi/unlicensed												
	Freq	5.665	5.670	5.675	5.680	5.685	5.690	5.695	5.700	5.705	5.710	5.715	5.720	5.725
	Channel	146	147	148	149	150	151	152	153	154	155	156	157	158
	Status	Ham Band shared with U-NII-3/wifi/unlicensed												
	Freq	5.730	5.735	5.740	5.745	5.750	5.755	5.760	5.765	5.770	5.775	5.780	5.785	5.790
	Channel	159	160	161	162	163	164	165	166	167	168	169	170	171
	Status	Ham Band shared with U-NII-3/wifi/unlicensed							Ham Band					
	Freq	5.795	5.800	5.805	5.810	5.815	5.820	5.825	5.830	5.835	5.840	5.845	5.850	5.855
	Channel	172	173	174	175	176	177	178	179	180	181	182	183	184
	Status	Ham Band												
	Freq	5.860	5.865	5.870	5.875	5.880	5.885	5.890	5.895	5.900	5.905	5.910	5.915	5.920

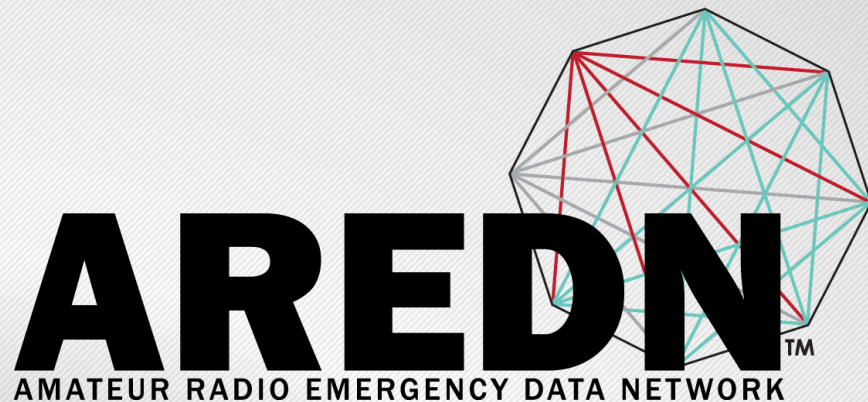
- Allows WiFi/WISP operations from 5.850-5.895 GHz (170-179)
- Assigns 5.895-5.925 GHz to Intelligent Transportation Systems (179-184)



Spectrum at Risk

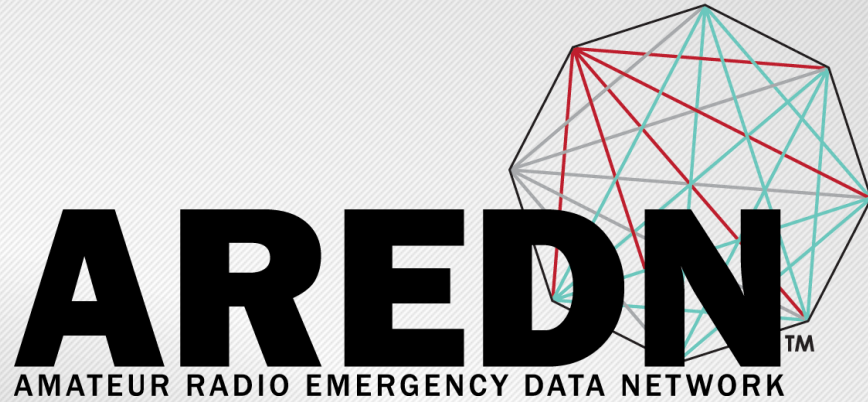
- Docket 19-348 (3Ghz)
- Docket 19-138 (5Ghz)

<https://www.fcc.gov/ecfs/filings/express>



For More Info

- WWW.AREDNMesh.ORG
- QST June 2017, ARRL
- TAPR/ARRL DCC Proceedings 2015
- TAPR/ARRL DCC Proceedings 2016
- Search YouTube, HamRadioNow, HamNation videos



Contact Info

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www.arednmesh.org/forum