Digital Smart Technologies for Amateur Radio

D-STAR

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WHAT IS D-STAR?

D-STAR

- D-STAR (Digital Smart Technologies for Amateur Radio) is a digital voice and data protocol specification developed as the result of research by the Japan Amateur Radio League to investigate digital technologies for amateur radio. While there are other digital on-air technologies being used by amateurs that have come from other services, D-STAR is one of the first on-air and packet-based standards to be widely deployed and sold by a major radio manufacturer that is designed specifically for amateur service use. - Wikipedia

D-STAR

- D-STAR is an open worldwide standard for digital communications over Amateur Radio
- The D-STAR standard was developed by the Japan Amateur Radio League (JARL)
- D-STAR uses the AMBE vocoder chip under license from DVSI
- Icom is initial manufacturer of mobiles, HTs, repeaters and controllers
- Non-Icom hardware and software developed for repeaters, hotspots, access points and accessories

HOW D-STAR IS DIFFERENT

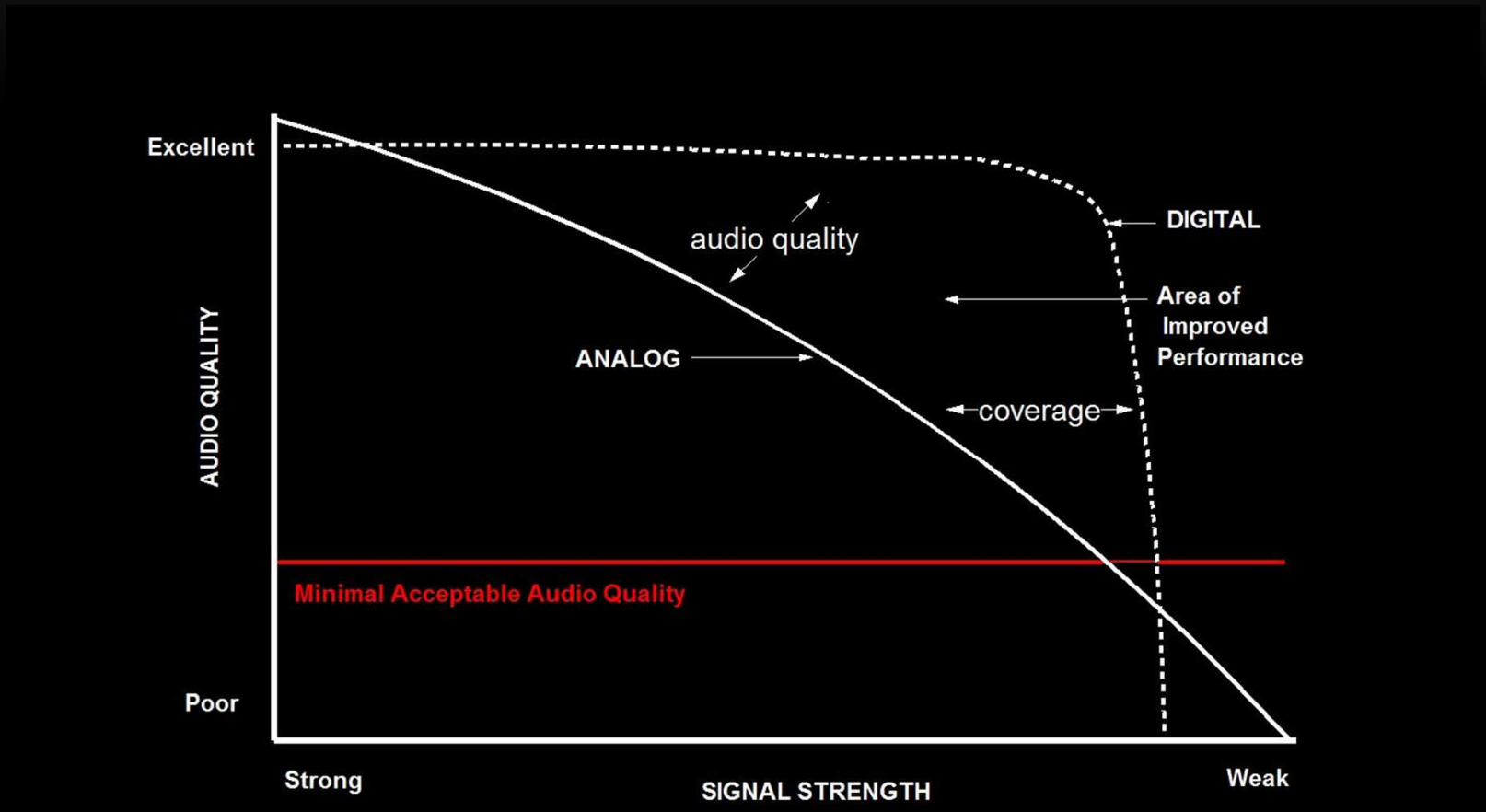
HOW D-STAR IS DIFFERENT

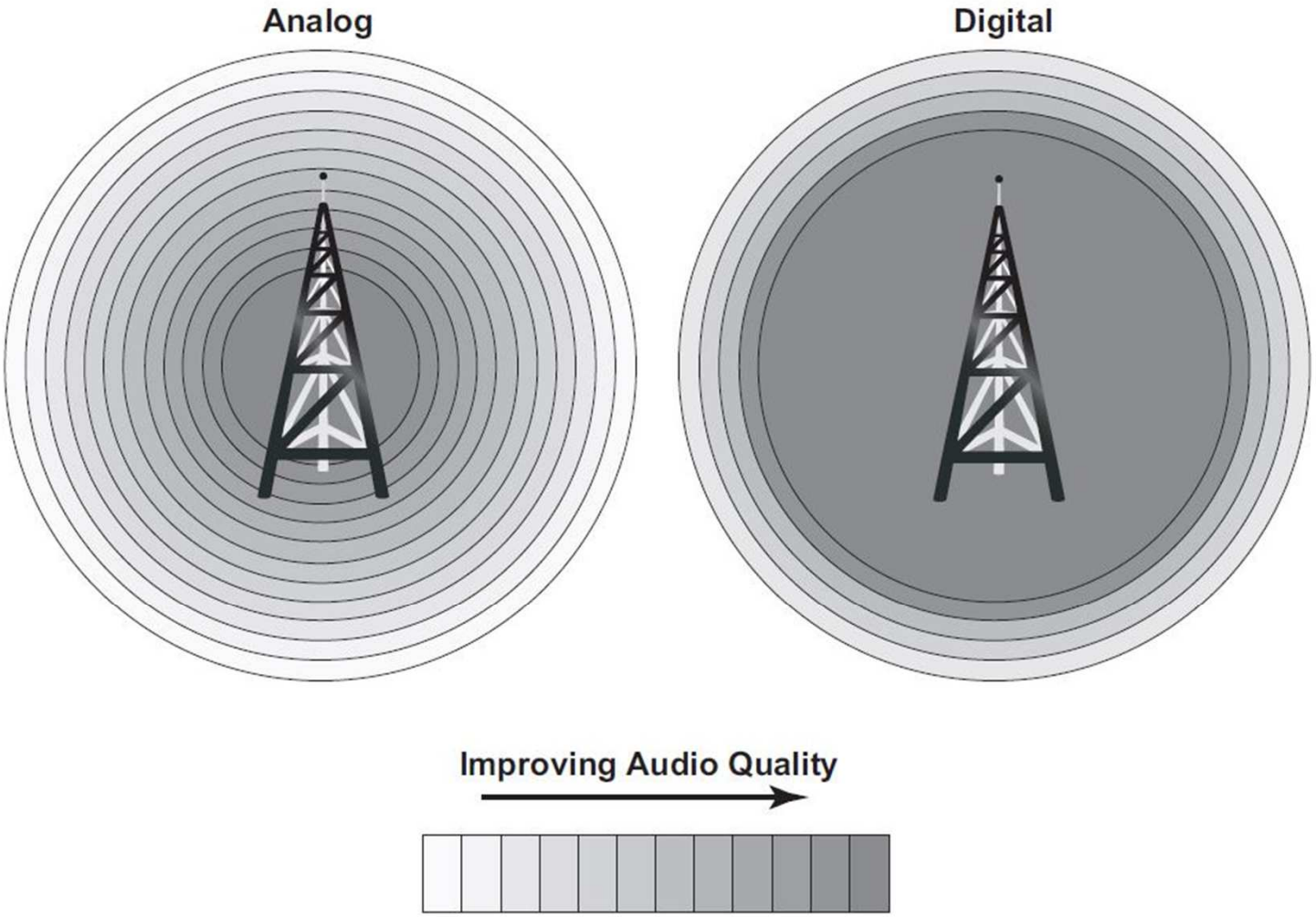
- D-STAR is digital modulation
- D-Star radios convert your voice to digital before transmission.
- Additional information is included in the “digital stream” that is transmitted (and displayed on the receiving radio):
- Your call sign (“MyCall”) is included – you never have to verbally “identify” again!
- You can set a short (4 character) tag, & a short (20 character) text message that is included.
- You can also include low-speed digital data or GPS positioning information.

HOW D-STAR IS DIFFERENT

- D-Star transmissions are clear and free of noise
- Low strength signals sound just a good as full strength signals
- D-Star is not perfect, of course, neither is any system
- R2-D2 – Multipath, QRM, packet loss
- Remember, digital is different, and that must be considered when comparing digital to analog.
- Overall, just forget the silly little arguments…D-Star works just fine.

DIGITAL VS. ANALOG

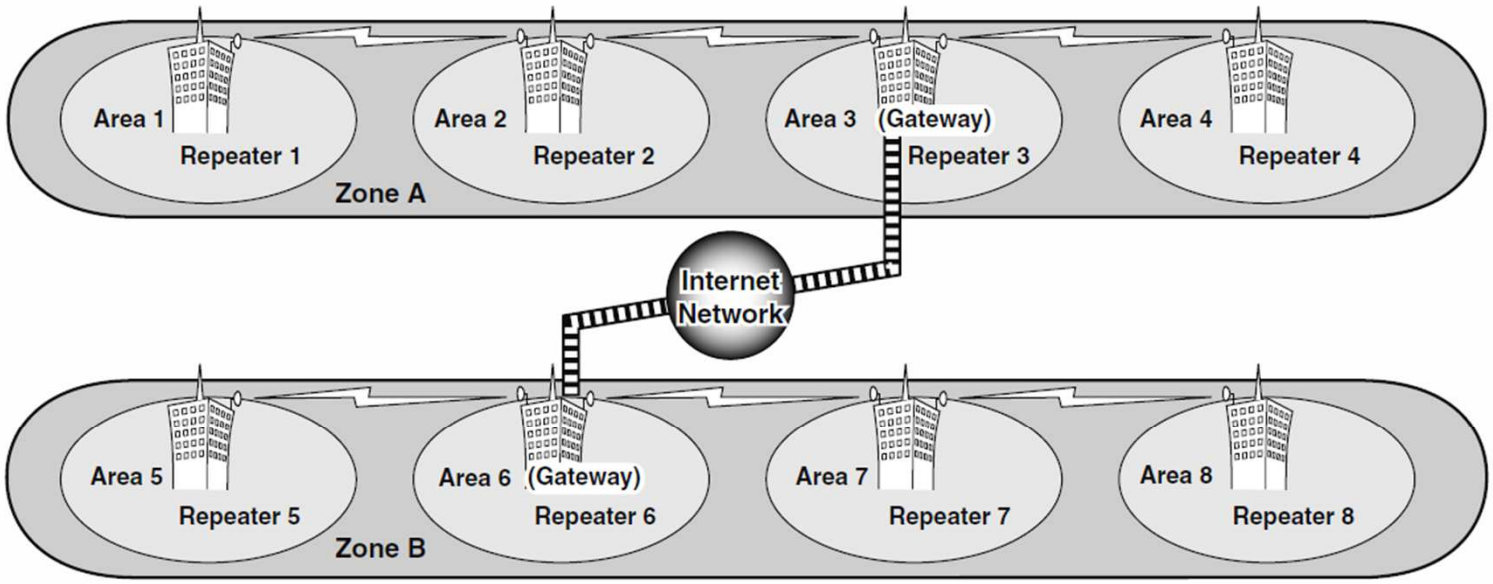



Analog
Digital
Improving Audio Quality

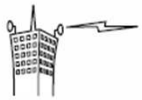
D-Star History and Evolution

Original Architecture

◇ **System description**



Area:
The Area is the communication range that is covered by a single repeater.
The repeater is called an area repeater in the D-STAR system.



Link repeater:
The microwave (10 GHz) link repeater provides to linking with another repeater site (Area) for zone construction.

Zone:
The Zone is composed of several areas, that are linked by a 10 GHz microwave link.
The areas 1 to 4 and 5 to 8 make up a zone at the example above.

Gateway repeater:
Gateway repeaters provide communications between different zones via the internet.
The repeater 3 and 6 are gateway repeaters at the example above.

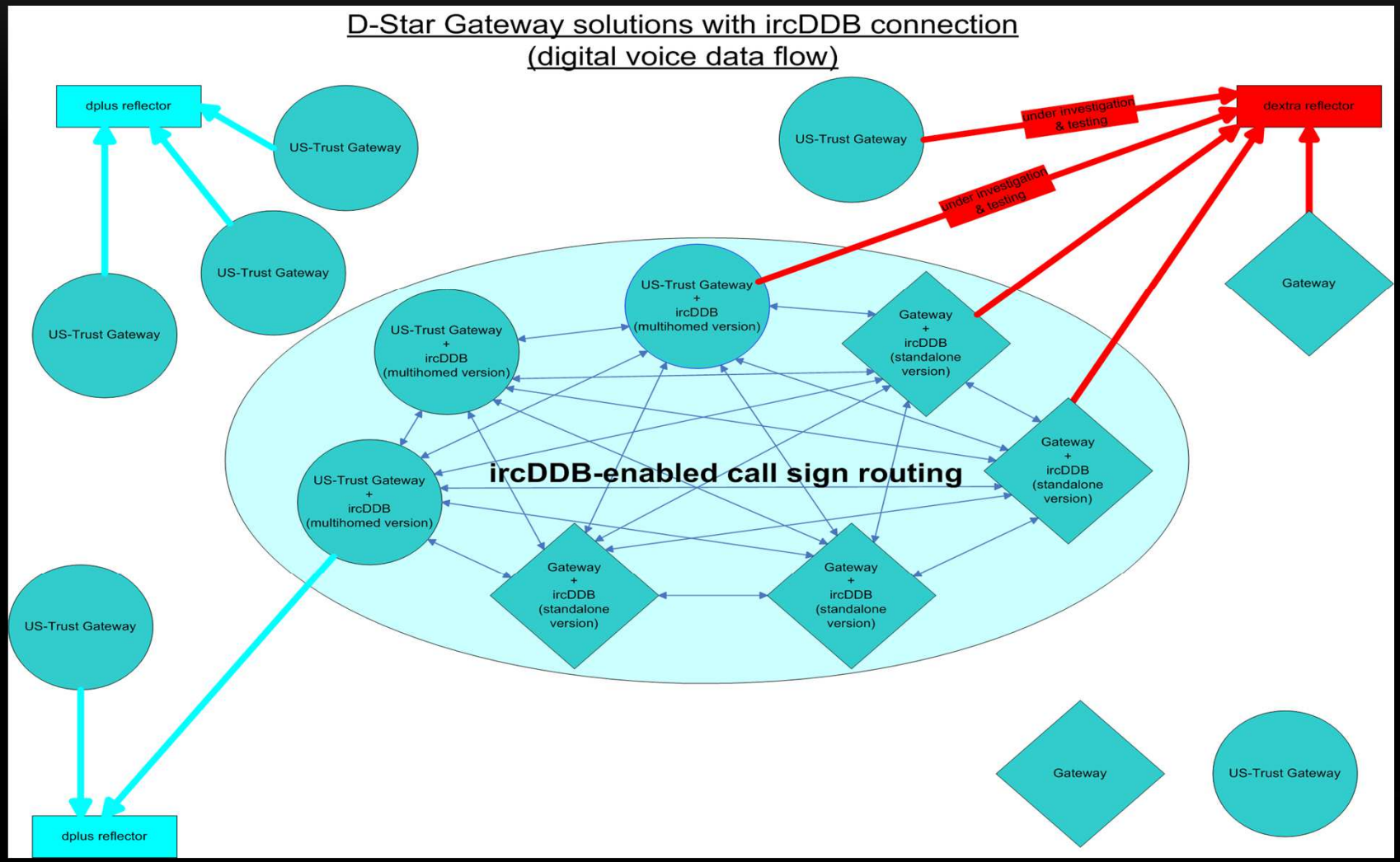
D-Star History and Evolution

D-Plus reflectors added

Reflector	Usage	Location	Links	Speed
REF001B	Illinois D-STAR repeaters	London, England	Status	100 Mbps
REF001C	D-STAR's MegaRepeater	London, England	Status	100 Mbps
REF002A	Southeastern US D-STAR Weather Net	NE, United States	Status	100 Mbps
REF002B	Southern Arizona Linked Repeater Network	NE, United States	Status	100 Mbps
REF002C	Some Nets	NE, United States	Status	100 Mbps
REF003A	Ad-hock & Emergency Use - Australia	Australia	Status	
REF003B	Permalink for Repeaters, including all WIA Port B Repeaters – Australia	Australia	Status	
REF003C	Australian Nets	Australia	Status	
REF004A	Alternate for Southeastern US D-STAR Weather Net	United States	Status	1 Gbps
REF004B	Texas Permalink Repeaters	United States	Status	1 Gbps
REF004C	General Rag Chew (English only please)	United States	Status	1 Gbps
REF005A	UK Nets, Permalink Repeaters	London, England	Status Usage Guide Information	100 Mbps
REF005B	Kent Net (UK Repeaters around Kent)	London, England	Status Usage Guide Information	100 Mbps
REF005C		London, England	Status Usage Guide Information	100 Mbps
REF005D	UKFMGW Net (North West UK Repeaters)	London, England	Status Usage Guide Information	100 Mbps
REF006A	Scottish Net	London, England	Status Usage Guide Information	100 Mbps
REF006B		London, England	Status Usage Guide Information	100 Mbps
REF006C	German Net	London, England	Status Usage Guide Information	100 Mbps
REF007A	Florida	Orlando, FL, United States	Status	100 Mbps
REF007B	Florida	Orlando, FL, United States	Status	100 Mbps
REF007C	Florida	Orlando, FL, United States	Status	100 Mbps
REF008A	Japan G2 repeaters, DVDongles and DVAPs	Japan	Status	
REF008B	Japan G2 repeaters, DVDongles and DVAPs	Japan	Status	
REF008C	Japan G2 repeaters, DVDongles and DVAPs	Japan	Status	
REF009A		AZ, United States	Status	
REF009B		AZ, United States	Status	
REF009C	Arizona Permalink Repeaters	AZ, United States	Status	
REF010A	Emergency Communications	New England, United States	Status	100 Mbps
REF010B	Open	New England, United States	Status	100 Mbps
REF010C	New England Repeaters	New England, United States	Status	100 Mbps
REF011A		Italy	Status	
REF011B		Italy	Status	
REF011C		Italy	Status	
REF012A	Permalink Repeaters	Southern California, United States	Status	100 Mbps
REF012B		Southern California, United States	Status	100 Mbps
REF012C		Southern California, United States	Status	100 Mbps
REF013A		London, England	Status	100 Mbps
REF013B		London, England	Status	100 Mbps
REF013C		London, England	Status	100 Mbps
REF014A	US west coast repeater linking	NE, United States	Status	
REF014B	US west coast repeater linking	NE, United States	Status	
REF014C	US west coast repeater linking	NE, United States	Status	
REF015A	Multimedia (non-DSTAR)	London, England	Status	
REF015B	Multimedia (non-DSTAR)	London, England	Status	
REF015C	Data Only - Worldwide use	London, England	Status	
REF016A		British Columbia, Canada	Status	100 Mbps
REF016B		British Columbia, Canada	Status	100 Mbps
REF016C		British Columbia, Canada	Status	100 Mbps
REF017A	Netherlands (Dutch Speaking repeaters,hotspots and dongles)	Amsterdam, the Netherlands	Status	100 Mbps
REF017B		Amsterdam, the Netherlands	Status	100 Mbps
REF017C		Amsterdam, the Netherlands	Status	100 Mbps
REF018A	Brazil	United States	Status	
REF018B	Brazil	United States	Status	
REF018C	Brazil	United States	Status	
REF019A		WI, United States	Status	100 Mbps
REF019B		WI, United States	Status	100 Mbps
REF019C		WI, United States	Status	100 Mbps
REF020A		NJ, United States	Status	
REF020B		NJ, United States	Status	

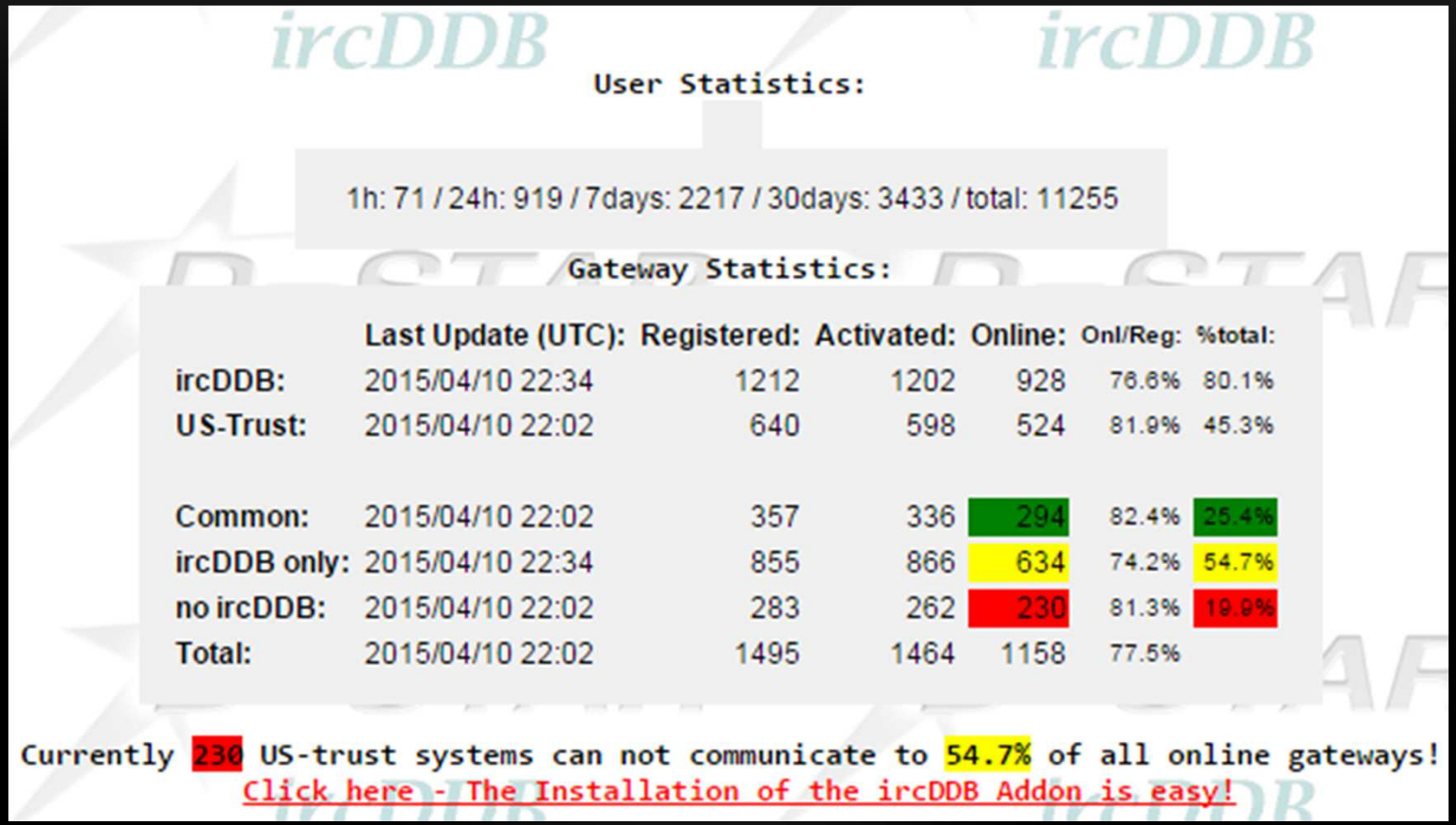
D-Star History and Evolution

IRCDDB added (G4KLX)



D-Star History and Evolution

US-Trust vs. IRCDDB/DCS use statistics



ircDDB ircDDB

User Statistics:

1h: 71 / 24h: 919 / 7days: 2217 / 30days: 3433 / total: 11255

Gateway Statistics:

	Last Update (UTC):	Registered:	Activated:	Online:	Onl/Reg:	%total:
ircDDB:	2015/04/10 22:34	1212	1202	928	76.6%	80.1%
US-Trust:	2015/04/10 22:02	640	598	524	81.9%	45.3%
Common:	2015/04/10 22:02	357	336	294	82.4%	25.4%
ircDDB only:	2015/04/10 22:34	855	866	634	74.2%	54.7%
no ircDDB:	2015/04/10 22:02	283	262	230	81.3%	19.9%
Total:	2015/04/10 22:02	1495	1464	1158	77.5%	

Currently 230 US-trust systems can not communicate to 54.7% of all online gateways!

Click here - The Installation of the ircDDB Addon is easy!

D-Star History and Evolution
The DCS reflector system

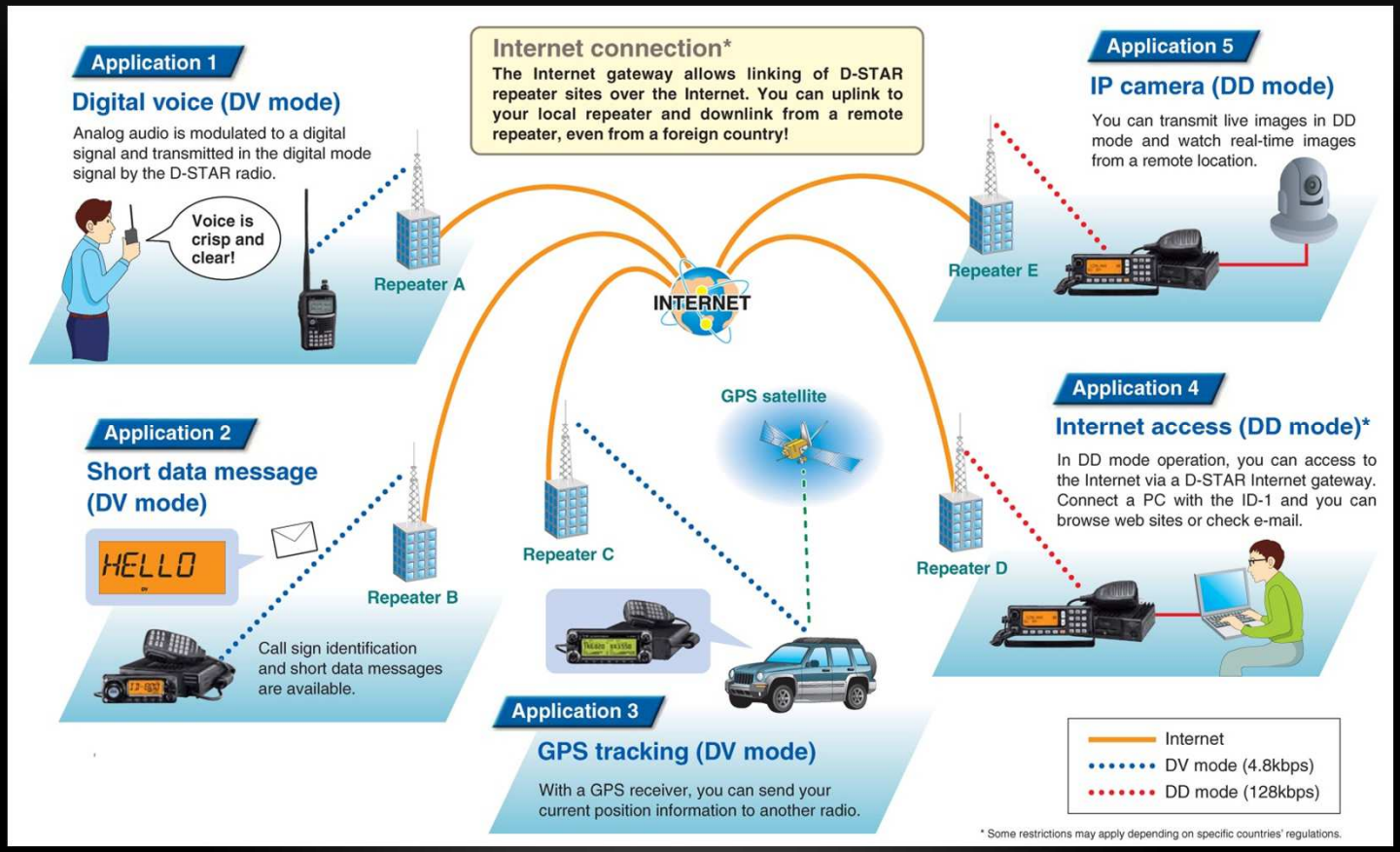
Nr.	MyCall	Source	S+Modul	User DTMF	Your	Message	Last Heard	GROUP	Group DTMF
	IT9ZHS	IT9ZHS	IT9ZHS B	7900	CQCQCQ	ROBERTO*PALERMO	54 m 22 s	Florida DCS024 C	D24C
2	K1WIZ GPS	K1WIZ	K1WIZ C	3935	CQCQCQ	WWW.WIZWORKS.NET	4 h 48 m 13 s	USA DCS024 B	D24B
3	ND1L GPS	ND1L	ND1L B	1291	CQCQCQ	JESS - MOBILE	1 d 7 m 52 s	Florida DCS024 C	D24C
4	KD4JMV GPS A	AC4FL	AC4FL B	6185	CQCQCQ	HARRYPI551	1 d 3 h 32 m 54 s	Florida DCS024 C	D24C
5	N1DL	AB4FL	AB4FL B	1941	CQCQCQ	KARL IN NAPLES, FL	1 d 4 h 37 m 30 s	Florida DCS024 C	D24C
6	K1DSP	K1DSP	K1DSP C	no dtmf	CQCQCQ	No Info	1 d 7 h 1 m 6 s	USA DCS024 B	D24B
7	ZL2TWS -ZL2TWS L- is no Call	ZL2VH	ZL2VH B	7028	CQCQCQ	RPi2+DVRPTR-V1	1 d 20 h 14 m 21 s	Florida DCS024 C	D24C
8	AG0X	AG0X	AG0X C	3371	CQCQCQ	Uli Naples, FL	1 d 23 h 2 m 27 s	Florida DCS024 C	D24C
9	N1PA	N1PA	N1PA B	1000	CQCQCQ	Paul / D-HAP Mobile	2 d 10 h 46 m 40 s	USA DCS024 B	D24B
10	EA5IKG	EA5IKG	EA5IKG C	3471	CQCQCQ	Juan Jose QTH SAX	3 d 3 h 39 m 39 s	Florida DCS024 C	D24C
11	VA3AM	VA3FS	VA3FS B	no dtmf	CQCQCQ	Hamilton Ont Canada	3 d 4 h 21 m 30 s	USA DCS024 B	D24B
12	K3AVR	K5MI	K5MI C	8307	CQCQCQ	No Info	3 d 8 h 49 m 35 s	Florida DCS024 C	D24C
13	G1BJY	N1PA	N1PA B	1322	CQCQCQ	Alan dv-mega Kempsey	4 d 1 h 31 m 13 s	USA DCS024 B	D24B
14	OE7MKT GPS	OE7FMI	OE7FMI B	8657	CQCQCQ	OE7MKT ++portabel++	4 d 10 h 17 m 45 s	Florida DCS024 C	D24C
15	AB1EI	KS1R	KS1R B	4841	CQCQCQ	AB1EI	4 d 22 h 6 m 19 s	Florida DCS024 C	D24C
16	K1CGZ GPS	KS1R	KS1R B	5740	CQCQCQ	Paul, Marco Is., FL	4 d 22 h 16 m 13 s	Florida DCS024 C	D24C
17	W9KB	AA4PP	AA4PP B	2468	CQCQCQ	NAPLES, FL	5 d 3 h 19 m 10 s	Florida DCS024 C	D24C
18	DK1EHK GPS A	DK1EHK	DK1EHK D	6237	CQCQCQ	HELMUT IN WERTH	5 d 7 h 27 m 55 s	Florida DCS024 C	D24C
19	DO4IX	DO4IX	DO4IX B	8636	CQCQCQ	Jean Ratingen R12	5 d 8 h 45 m 7 s	Florida DCS024 C	D24C
20	DG9EIS	DB0PBS	DB0PBS B	7136	CQCQCQ	FRANK NEAR EDLP	6 d 1 h 47 m 40 s	USA DCS024 B	D24B
21	AC0YV	AC0YV	AC0YV B	5828	CQCQCQ	880H COLORADO MIKE	6 d 2 h 33 m 51 s	California DCS024 D	D24D
22	K0BAN	AC0YV	AC0YV B	no dtmf	CQCQCQ	K0BAN ID-51A Plus 0D	6 d 7 h 33 m 25 s	California DCS024 D	D24D
23	M0ZMX	GB7OK	GB7OK C	5750	CQCQCQ	Mark /Isle Of Grain	6 d 10 h 30 m 30 s	Florida DCS024 C	D24C
24	DL2ZEA	DL2ZEA	DL2ZEA B	1104	CQCQCQ	Andreas - Zerbst	7 d 6 h 59 m 1 s	Florida DCS024 C	D24C
25	K2RHK GPS	K2RHK	K2RHK B	no dtmf	CQCQCQ	ALAN NEW YORK NY	9 d 4 s	USA DCS024 B	D24B
26	G4DBR	G4DBR	G4DBR B	8806	CQCQCQ	CHRIS- HILL RIDWARE-	9 d 13 h 40 m 8 s	USA DCS024 B	D24B
27	CT2IHP	MultiLink	HB9IAC B	8052	CQCQCQ	Rui Bernardo - 73	11 d 3 h 6 m 16 s	World Wide DCS024 A	D24A

WHAT CAN YOU DO WITH D-STAR?

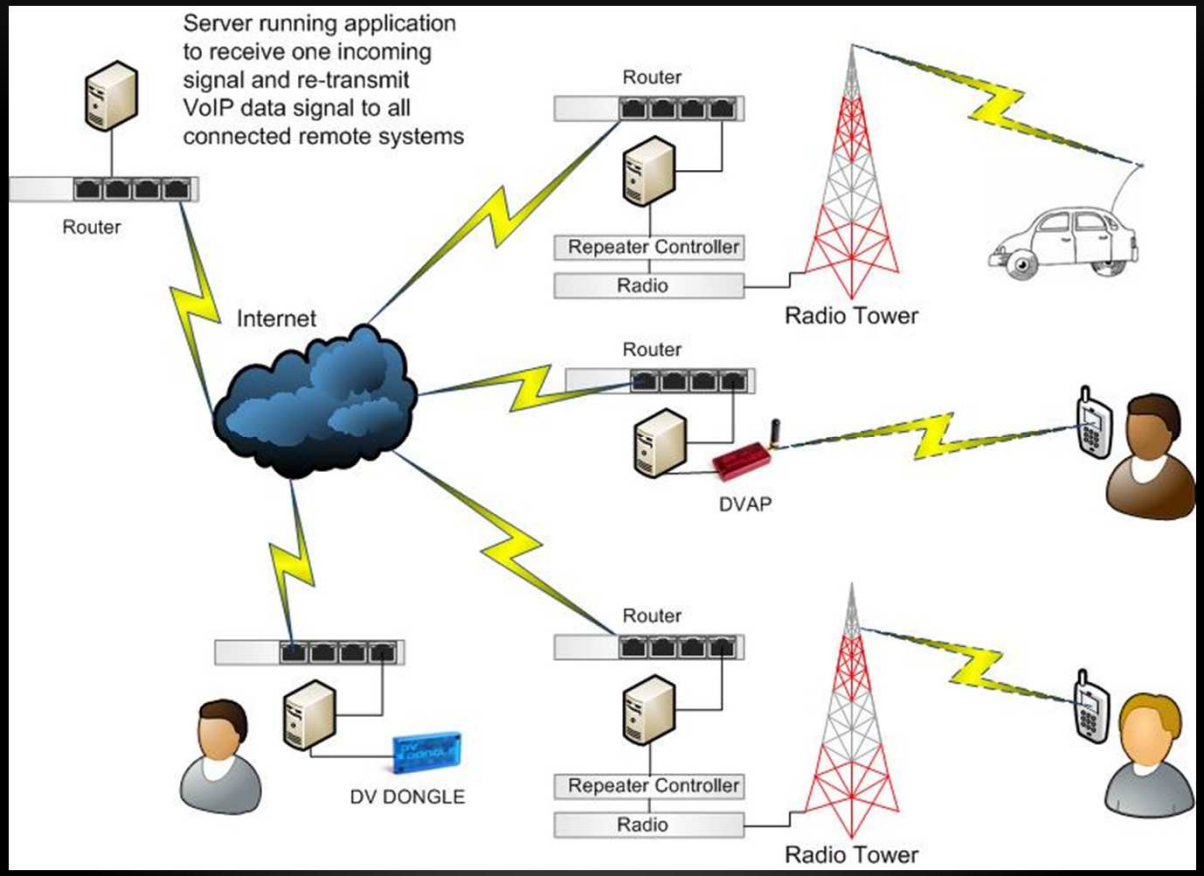
WHAT CAN YOU DO WITH D-STAR?

- Simplex communications, of course
- Repeaters
- Reflectors – This is where most of the traffic is found
- Data
- Call Sign Routing
- Repeater Linking
- CCS – Call Connection Service
- Registration is required to use most US reflectors

WHAT CAN YOU DO WITH D-STAR?



WHAT CAN YOU DO WITH D-STAR?



HOW DO I DO IT?

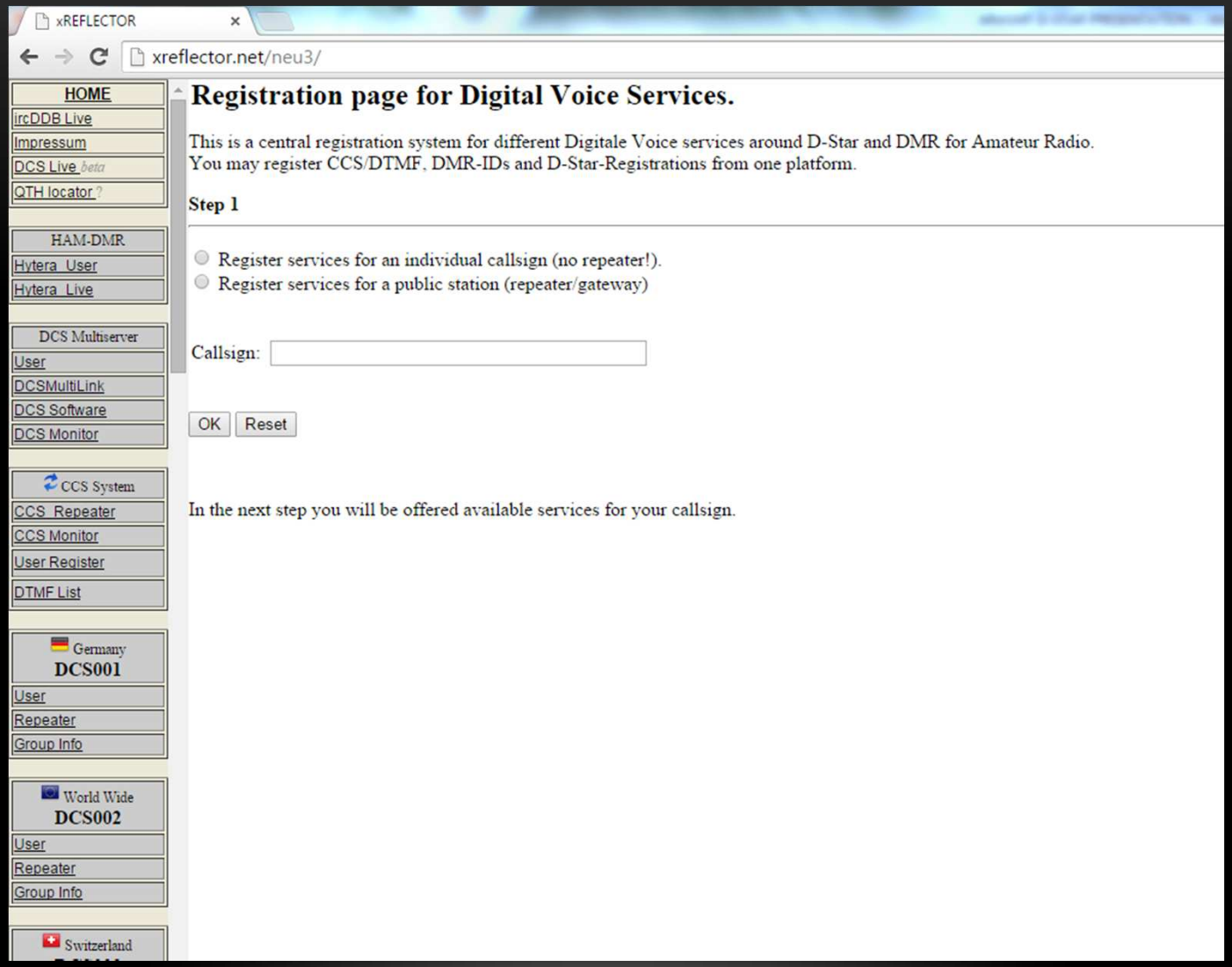
PROGRAM MY RADIO

Memory Channel

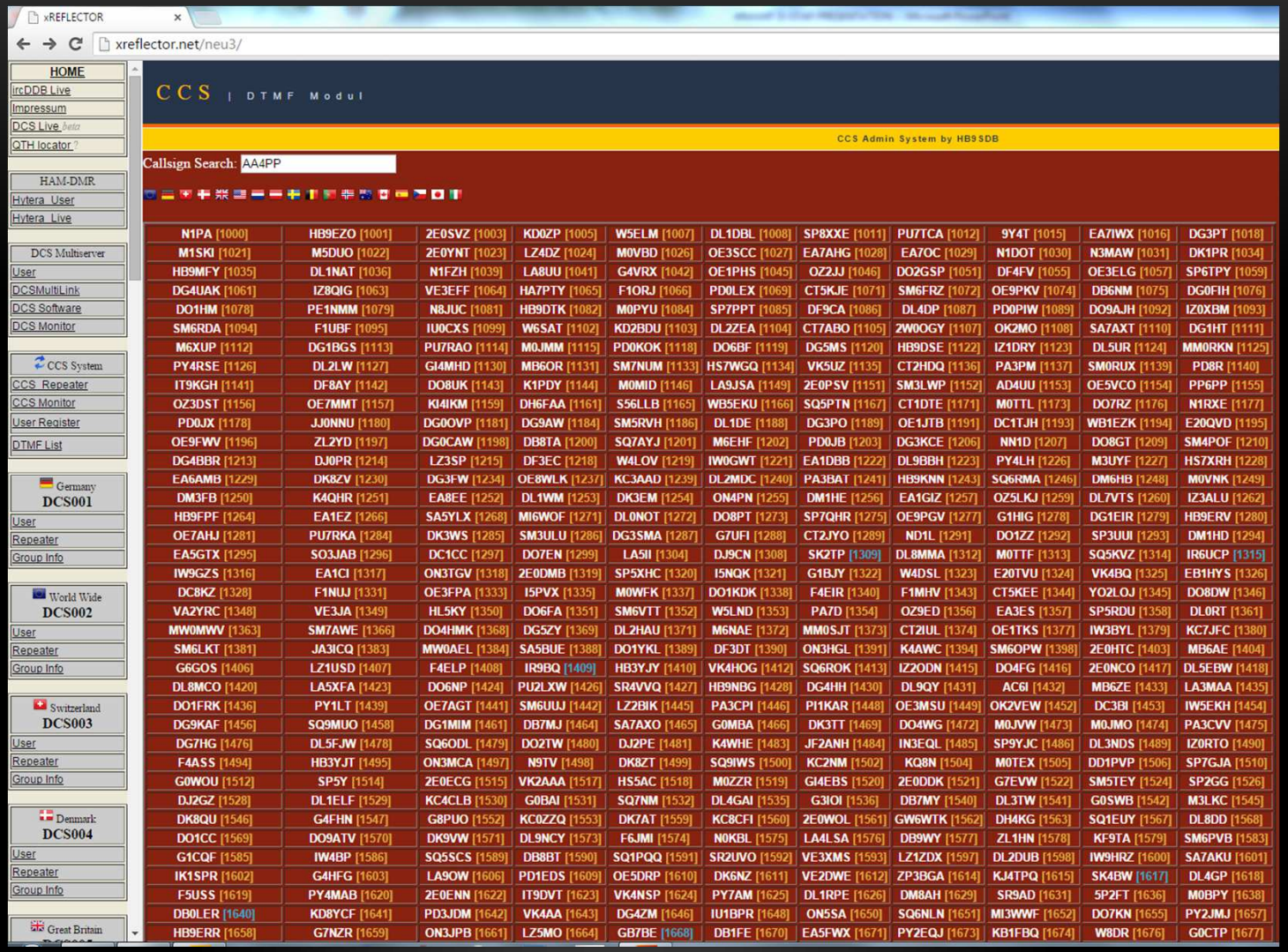
	Frequency							Tone/TSQL/DTCS					Digital		Call Sign			Bank	
CH	Operating Freq	DUP	Offset Freq	TS	Mode	Name	Skip	Tone	Repeater Tone	TSQL Freq	DTCS	DTCS Polarity	DSQL	Code	Your	RPT1	RPT2	Group	Ch
0	146.520000		0.600000	15k	FM	SIMPLEX			141.3	141.3	023	Both N		00	CQCQCQ			A	0
1	146.670000	-DUP	0.600000	15k	FM	ARASWF		TONE	136.5	136.5	023	Both N		00	CQCQCQ			A	1
2	146.640000	-DUP	0.600000	15k	FM	NAPLES64		TONE	136.5	136.5	023	Both N		00	CQCQCQ			A	2
3	147.030000	+DUP	0.600000	15k	FM	EOC		TONE	136.5	88.5	023	Both N		00	CQCQCQ			A	3
4	147.105000	-DUP	0.600000	15k	FM	147.105		TONE	136.5	88.5	023	Both N		00	CQCQCQ				
5	147.505000	-DUP	1.000000	10k	FM	KC1AR		TONE	67.0	88.5	023	Both N		00	CQCQCQ			A	5
6	443.900000	+DUP	5.000000	25k	FM	KC1AR U		TONE	67.0	88.5	023	Both N		00	CQCQCQ			A	9
7	443.100000	+DUP	5.000000	15k	FM	KC4RRP		TONE	136.5	136.5	023	Both N		00	CQCQCQ			A	4
8	443.600000	+DUP	5.000000	25k	FM	VINEYRDS		TONE	114.8	88.5	023	Both N		00	CQCQCQ			A	11
9	442.750000	+DUP	5.000000	25k	FM	KC1AR		TONE	67.0	88.5	023	Both N		00	CQCQCQ	KC1AR B	KC1AR G	A	12
10	145.725000		0.600000	12.5k	DV	HOTSPOT			88.5	88.5	023	Both N		00	CQCQCQ	AG0X C	AG0X G	A	31
11	441.500000	+DUP	5.000000	15k	DV	AA4PP B			88.5	88.5	023	Both N		00	CQCQCQ	AA4PP B	AA4PP G	A	13
12	145.490000	-DUP	0.600000	15k	DV	AA4PP C			88.5	88.5	023	Both N		00	CQCQCQ	AA4PP C	AA4PP G	A	14
13	145.270000	-DUP	0.600000	15k	DV	AB4NP C			88.5	88.5	023	Both N		00	CQCQCQ	AB4NP C	AB4NP G	A	16
14	443.275000	+DUP	5.000000	15k	DV	AC4FL B			88.5	88.5	023	Both N		00	CQCQCQ	AC4FL B	AC4FL G	A	17
15	146.985000	-DUP	0.600000	15k	DV	AC4FL C			88.5	88.5	023	Both N		00	CQCQCQ	AC4FL C	AC4FL G	A	18
16	147.315000	+DUP	0.600000	15k	DV	AD4SW C			88.5	88.5	023	Both N		00	CQCQCQ	AD4SW C	AD4SW G	A	19
17	443.650000	+DUP	5.000000	15k	FM	K5MI FM		TONE	141.3	88.5	023	Both N		00	CQCQCQ	K5MI B	K5MI G	A	20
18	146.985000	-DUP	0.600000	15k	DV	K5MI C			88.5	88.5	023	Both N		00	CQCQCQ	K5MI C	K5MI G	A	21
19	146.850000	-DUP	0.600000	15k	FM	MARCO V		TONE	141.3	88.5	023	Both N		00	CQCQCQ			A	22
20	443.650000	+DUP	5.000000	15k	FM	MARCO U		TONE	141.3	88.5	023	Both N		00	CQCQCQ			A	23
21	442.125000	+DUP	5.000000	25k	FM	ESTERO U		TONE	67.0	88.5	023	Both N		00	CQCQCQ			A	24
22	444.450000	+DUP	5.000000	25k	FM	FT MYERS		TONE	77.0	88.5	023	Both N		00	CQCQCQ			A	35
23	146.880000	-DUP	0.600000	15k	FM	FMARC V		TONE	136.5	88.5	023	Both N		00	CQCQCQ			A	26
24	145.170000	-DUP	0.600000	15k	FM	FMARC 2		TONE	136.5	88.5	023	Both N		00	CQCQCQ				
25	442.450000	+DUP	5.000000	25k	FM	FMARC U		TONE	136.5	88.5	023	Both N		00	CQCQCQ			A	27
26	146.880000	-DUP	0.600000	15k	FM	LEE EOC		TONE	136.5	88.5	023	Both N		00	CQCQCQ			A	28
27	146.790000	-DUP	0.600000	15k	FM	SANIBEL		TONE	136.5	88.5	023	Both N		00	CQCQCQ			A	29
28	443.425000	+DUP	5.000000	25k	FM	SANIBEL		TONE	136.5	88.5	023	Both N		00	CQCQCQ			A	30
29	445.400000		5.000000	25k	DV	UHF HOTS			88.5	88.5	023	Both N		00	CQCQCQ	AG0X B	AG0X G	A	6
30	147.975000	-DUP	0.600000	15k	DV	W7AES C			88.5	88.5	023	Both N		00	CQCQCQ	W7AES C	W7AES G	A	32
31	449.575000	-DUP	5.000000	12.5k	DV	W7AES B			88.5	88.5	023	Both N		00	CQCQCQ	W7AES B	W7AES G	A	33
32	443.400000	+DUP	5.000000	5k	FM	MARCO HB		TONE	141.3	88.5	023	Both N		00	CQCQCQ			A	25

REGISTER WITH US-TRUST

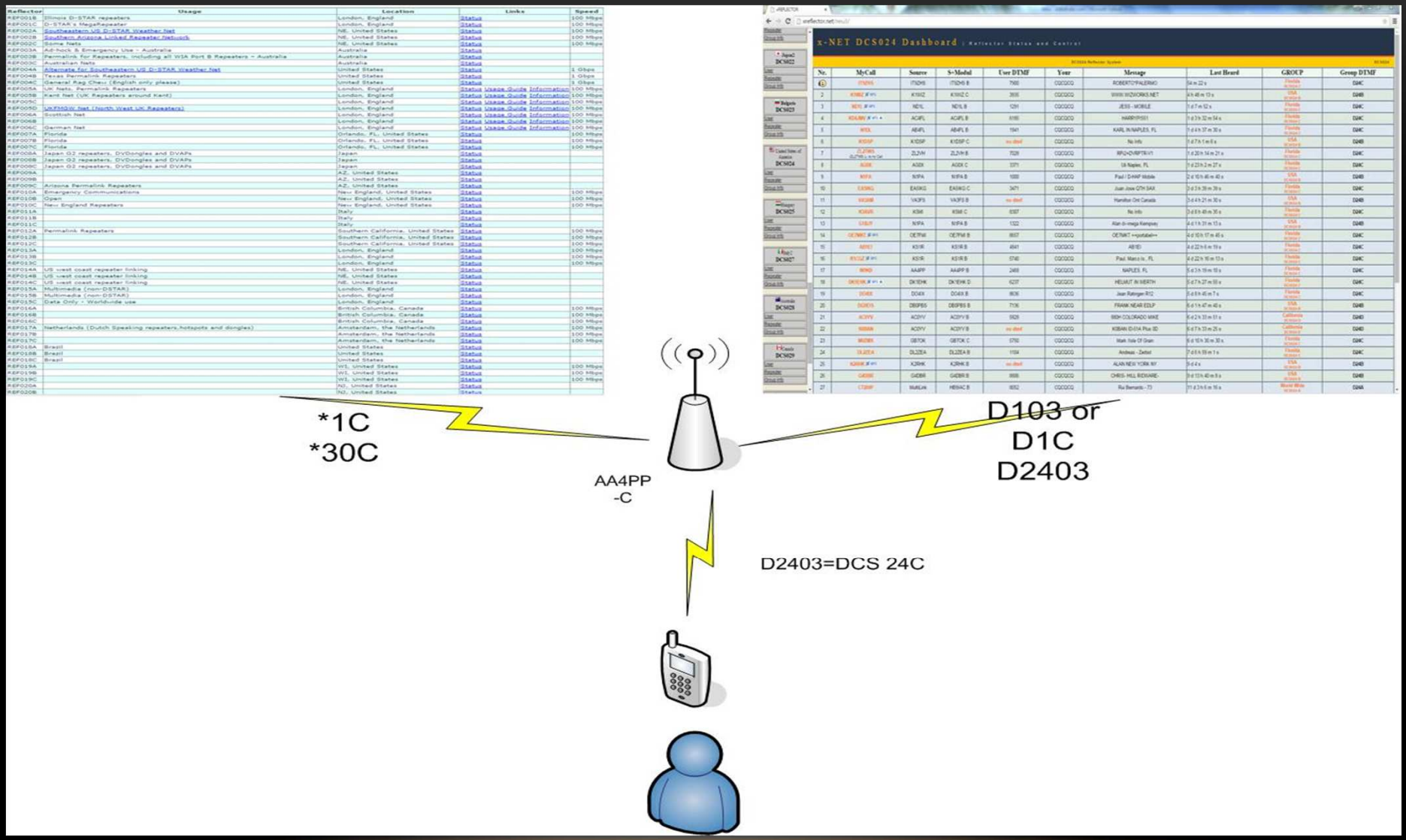
GET A CCS NUMBER (YOUR "PHONE NUMBER")



THE CCS PHONE BOOK



CONNECT TO US-TRUST AND DCS REFLECTORS



D-STAR TRANSMISSION

This was recorded approximately 40 miles from the W4AES Repeater in Orlando. Notice that the signal is not even registering on the S-Meter, yet the signal is as clear as a full scale signal.

D-STAR TERMINOLOGY

- Understand this and you are on your way
- The terminology is from the viewpoint of the transmitting station
- “MyCall” is really **YOUR** call sign; that is, you, the guy or gal holding the radio or microphone.
- “YourCall” (also called “UrCall”) is really the call sign of the **OTHER** person, that is, the person you want to talk to (for the most part, you will use CQCQCQ).
- “Rpt1Call” and “Rpt2Call” (also called “R1Call” & “R2Call”) are also used, and will be discussed next.

D-STAR PROGRAMMING

- Know repeater frequency and callsign
- The four parameters:

1. MY -My callsign (Once set, this will likely never have to be changed again)
2. UR –Your callsign (CQCQCQ for general call)
3. RPT1 –Repeater callsign/module I'm talking to (AA4PP B)
4. RPT2 –Where do I want to go? (usually repeater callsign and gateway …. example AA4PP G)

- The eighth position –Designates module regardless of callsign length (AA4PP●●C, W4BUG●●C, W4AES●●**B**)

● = blank space

LINKING AND ROUTING

- Users can link directly to other repeaters and reflectors
- Linking is generally accomplished by a link command in the Ur call sign field
- Collier County D-Star Repeaters also use DTMF for linking and routing
- D-Star is capable of call sign routing to individual stations
- CCS is a new platform that enables linking to another user with a simple 4-digit DTMF command and other repeaters with a 5-digit DTMF command
- CCS is very new and should make routing to other users and stations easier in many cases

D-STAR EQUIPMENT

D-STAR EQUIPMENT

DVAP AND DV DONGLE

The DV Access Point Dongle connects to your PC or Intel based Mac via a USB port and provides a 2 meter Access Point for use with a D-STAR radio. Using an Internet connection, a user may connect to and communicate with D-STAR gateways and reflectors around the world. The DVAPTool application used with the DV Access Point Dongle may be installed and run on Microsoft Windows XP/Vista/7, Mac OS X Leopard/Snow Leopard, or many flavors of Linux.

DVRPTR

- The DVRPTR-2 board is a DV Modem based on two powerful 32 Bit microcontroller, an ATMEL AT32UC3B0512 and an ARM based TI controller. All DV functions are implemented in software.

DVRPTR

- Personal Hotspot – Simplex solution uses a radio with a 9600 baud packet port, uses personal call sign
- Public Hotspot – Works the same but with higher power and a club call sign
- Gateway Link – Provides internet access for a remote repeater
- Repeater – Use a repeater or two FM transceivers and you have a D-Star repeater
- AMBE Board – Using an add on board, you can plug in a mic and speaker and use a 9600 baud capable transceiver and transmit D-Star digital

RASPBERRY PI & DVAP

RASPBERRY PI & DVMEGA

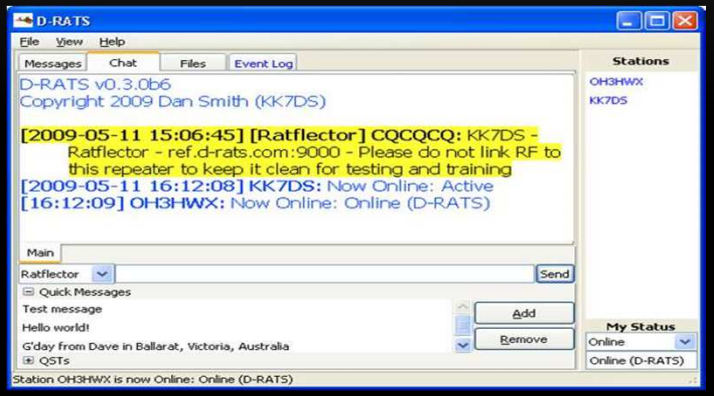
DHAP
(DIGITAL HAM ACCESS POINT)

BABYYSTAR

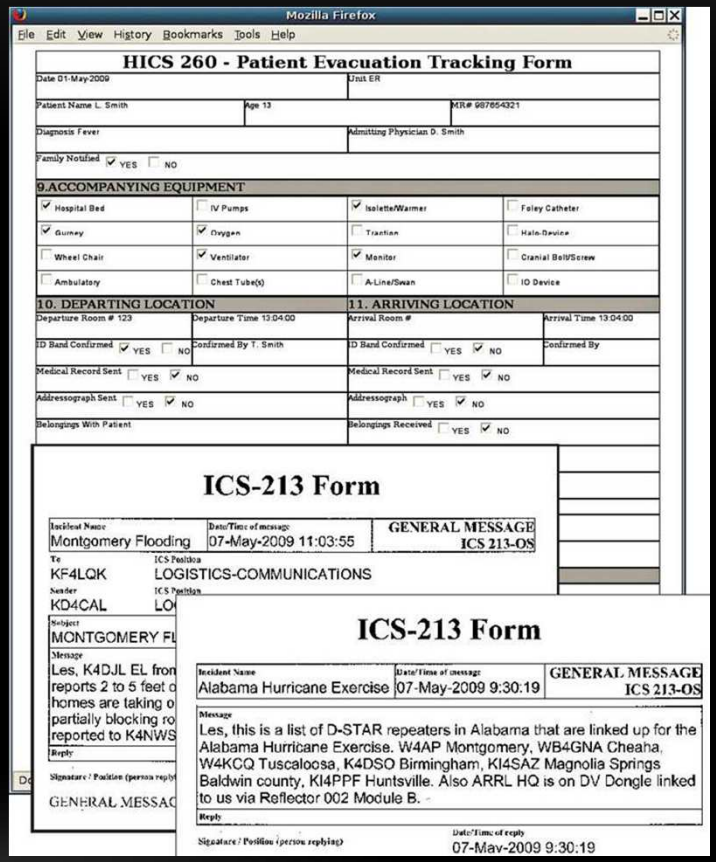
D-RATS

- D-RATS is a full function data communications tool for D-STAR and more…and it's **FREE**
- Written by Dan Smith, KK7DS
- Utilizes D-STAR low-speed data mode (~1200 baud)
- PC connects directly to D-STAR radio (No TNC required)
- Windows, Linux and Mac versions available
- Can be used without radio over Internet or with DV Dongle
- Provides chat, messaging, email, forms, file transfer (unattended), mapping (maps included)

D-RATS


D-RATS
File View Help
Messages Chat Files Event Log
Stations
OH3HWX
KK7DS
D-RATS v0.3.0b6
Copyright 2009 Dan Smith (KK7DS)
[2009-05-11 15:06:45] [Ratflector] CQCQCQ: KK7DS - Ratflector - ref.d-rats.com:9000 - Please do not link RF to this repeater to keep it clean for testing and training
[2009-05-11 16:12:08] KK7DS: Now Online: Active
[16:12:09] OH3HWX: Now Online: Online (D-RATS)
Main
Ratflector
Send
Quick Messages
Test message
Hello world!
G'day from Dave in Ballarat, Victoria, Australia
QSTs
Add
Remove
My Status
Online
Online (D-RATS)
Station OH3HWX is now Online: Online (D-RATS)


D-RATS Station Map
Map
HFD Center
HIO Airport
KE7FTE
HFD Parkwood
KK7DS
US 26
N7OGM
WCSO East
KA7VQH
Show Station Latitude Longitude Distance
Prov. St. Vinc Hosp 45.5094 -122.7716 7.53
WC Fire
Stations
WC EOCs
Washington County ARES
Misc
Zoom
Min Max
Track center
45.5191, -122.8913
Static position


Mozilla Firefox
File Edit View History Bookmarks Tools Help
HICS 260 - Patient Evacuation Tracking Form
Patient Name L. Smith
Diagnosis Fever
9.ACCOMPANYING EQUIPMENT
10. DEPARTING LOCATION
11. ARRIVING LOCATION
ICS-213 Form
Incident Name
Montgomery Flooding
Date/Time of message
07-May-2009 11:03:55
GENERAL MESSAGE
ICS 213-OS
To
KF4LQK
ICS Position
LOGISTICS-COMMUNICATIONS
Sender
KD4CAL
Subject
MONTGOMERY FL
Message
Les, K4DJL EL fron
reports 2 to 5 feet o
homes are taking o
partially blocking ro
reported to K4NWS
Reply
GENERAL MESSAC
ICS-213 Form
Incident Name
Alabama Hurricane Exercise
Date/Time of message
07-May-2009 9:30:19
GENERAL MESSAGE
ICS 213-OS
Message
Les, this is a list of D-STAR repeaters in Alabama that are linked up for the Alabama Hurricane Exercise. W4AP Montgomery, WB4GNA Cheaha, W4KCQ Tuscaloosa, K4DSO Birmingham, KI4SAZ Magnolia Springs Baldwin county, KI4PPF Huntsville. Also ARRL HQ is on DV Dongle linked to us via Reflector 002 Module B.
Reply
Signature / Position (person replying)
Date/Time of reply
07-May-2009 9:30:19

D-STAR IN COLLIER COUNTY

- 6 functional D-Star repeaters in Collier County
- 2 additional D-Star repeaters are in the planning stages
- 2 are located on County Barn Road (AA4PP C & B)
- 1 is located near Wiggins Pass State Park (AC4FL B)
- AB4NP C is co-located with the WB2QLP repeater in North Pelican Bay
- 1 repeaters (K5MI) is on Marco Island 2 m
- 1 repeater is in Ave Maria (AD4SW) (will be simplex UHF repeater and the VHF becomes AllStar node)
- This allows allow D-Star coverage in most of Collier County
- Coverage extends into Lee County and SW Hendry County

D-STAR IN COLLIER COUNTY