



CIVIL AIR PATROL

Texas Wing
Communications Radio Guide Book
2009 R2 Version



This Guide Book is for the benefit of the Texas Wing Civil Air Patrol. It is to be used for Civil Air Patrol Official Business.

Communications Radio Guide Book contains channel assignments for Texas Wing. Also contains procedures for Texas communications and surrounding wings. This book will assist all members in the ability to maintain communications while on various missions and activities when VHF radios are in use.

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PLEASE PRACTICE and USE your Radio Gear on a regular basis.
The Radios are meant to be used. Use them properly.

For additional information regarding Texas Communications, see <http://www.txwgcap.org/comm/comm.htm>

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Civil Air Patrol Communications Guide Book 2009 r2 version
Designed by Texas Wing Communications Staff (2009) & Capt S C Rollins (INWG)



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CAP Radio Procedures

Radio Communication Format	Method of Speech
If Station Is Not Heard Call <i>station not heard</i> "Your station call sign" "STATION NOT HEARD" THIS IS TEXAS CAP 114 OUT"	Rhythm - Use short sentences, divided up in useable lengths Speed - Speak slower when delivering messages/traffic
Formal Messages Call <i>station called call sign</i> "your message" "your station call sign" "out" TEXAS CAP 114 "MESSAGE" TEXAS CAP 101 OVER	Volume - Normal levels (No Shouting) Pitch - Slightly higher than normal conversations
	Aids to Accuracy
Prowords (Common Ones)	Pronunciation of Letters
Roger = Instructions Received	Rules of Figures (Numbers)
Over = I am finished talking.	Rules of Mixed Groups
Out = Communication is complete frequency is free and open for next station use.	Corrections
	Over The Air "Don'ts"
This Is = Before call sign	Identify Operator by Name
Wait = I must pause for a few seconds do not transmit	Radio Frequencies (numbers)
Say Again = Repeat your transmission(message)	Profane or Inappropriate Language
Affirmative = "YES"	Transmission of Nicknames or False Call Signs
Negative = "NO"	Do Not Argue or Identify Search Subjects

CAP procedures require normal plain english, no 10 codes or Q codes are to be used. Under the new ICS/FEMA structure all information is to be passed in plain english no special use language.



CAP Aircraft Radios
VHF Frequency Designator Table 9

Channel		Remarks/Use	Designator
TDFM	NAT		
153	90		R 53
154	91		R 54
155	92		R 55
156	93		R 56
157	94		R 57
158	95		R 58
159	96		R 59
160	97		R 60
161	98		R 61
162	99		R 62
163			R 63
164			R 64
	GD1	Guard V1	GD1
	GD2	Guard V4	GD2
GD1		Guard 1 (NarrowBand)	GD1
GD2		TAC 1 (NarrowBand)	GD2

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CAP Aircraft Radios			
VHF Frequency Designator Table 8			
Channel		Remarks/Use	Designator
TDFM	NAT		
134	71		R 34
135	72		R 35
136	73		R 36
137	74		R 37
138	75		R 38
139	76		R 39
140	77		R 40
141	78		R 41
142	79		R 42
143	80		R 43
144	81		R 44
145	82		R 45
146	83		R 46
147	84		R 47
148	85		R 48
149	86		R 49
150	87		R 50
151	88		R 51
152	89		R 52



Radio Quick Reference (Helpful Hints)

Reference Material - CAPR 100-1 and 100-3
Reference Material - CAPR 60-3

PHONETIC ALPHABET		
ALPHA	JULIET	SIERRA
BRAVO	KILO	TANGO
CHARLIE	LIMA	UNIFORM
DELTA	MIKE	VICTOR
ECHO	NOVEMBER	WHISKEY
FOXTROT	OSCAR	XRAY
GOLF	PAPA	YANKEE
HOTEL	QUEBEC	ZULU
INDIA	ROMEO	

PHONETIC NUMBERS	
1 - ONE	6 - SIX
2 - TWO	7 - SEVEN
3 - TREE	8 - EIGHT
4 - FOUR	9 - NINER
5 - FIF (FIVE)	10 - TEN
URGENCY SIGNALS	
MAYDAY	PAN PAN
SECURITE' (Used for urgent warnings or navigational concerns)	

Flash(Z) (Rarely Used)	Immediate(O) (Rarely Used)	Priority(P) (Common Use)	Routine(R) (Common Use)
Messages for extreme urgency	Messages for that effect the security of the nation	Messages requiring action. Above Routine(R) messages.	Messages requiring normal action times

- * Use Minimum Transmission Power To Satisfactorily Complete Communication
- * VHF is Line Of Sight Transmissions.
- * HF transmissions Are Used For Long Distance Communications.
- * Use Simplex Frequencies First Then Use Repeaters If Needed.
(The use of repeaters extends range of communications)
- * Operations of CAP Frequencies In Canada and Mexico Is Prohibited.
- * Use CAPF 105 Form For Formal Message Logging
- * **List of Communications Forms**
ICS 309, ICS 205, ICS 216, ICS 217, CAPF 110, CAPF 105
- * For additional communication information and regulatory information reference CAPR 100-1 and 100-2 and 100-3
- * All Communications is to be done in plain english. This follows the ICS rules.

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EFJ 5300 series & 5100 series Radios VHF Frequency Designator Table 1			
Zone	Channel	Remarks/Use	Designator
1	1	Command Control 1	CC 1
1	2	Command Control 2	CC 2
1	3	Air to Air	AIR 1
1	4	Air to Air	AIR 2
1	5	Back Up Guard Channel	GUARD 1
1	6	Tactical Use (Misc use)	TAC 1
1	7		R65 CAT
1	8		R66 CAT
1	9		R67 CAT
1	10		R68
1	11		R69
1	12		R70
1	13		R63
1	14		R64
1	15		
1	16		
2	1	Old Simplex Channel (WideBand)	V 1
2	2	Old Simplex Channel (WideBand)	V 2
2	3	Old Simplex Channel (WideBand)	V 3
2	4	Old Simplex Channel (WideBand)	V 4



CAP Aircraft Radios VHF Frequency Designator Table 7			
Channel		Remarks/Use	Designator
TDFM	NAT		
115			R 15
116	54		R 16
117	55		R 17
118	56		R 18
119	57		R 19
120	58		R 20
121	59		R 21
122			R 22
123	60		R 23
124	61		R 24
125	62		R 25
126	63		R 26
127	64		R 27
128	65		R 28
129	66		R 29
130	67		R 30
131	68		R 31
132	69		R 32
133	70		R 33

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CAP Aircraft Radios			
VHF Frequency Designator Table 6			
Channel		Remarks/Use	Designator
TDFM	NAT		
096	38	United States Coast Guard	USCG 82A
097	39	United States Coast Guard	USCG 83A
098			
099			
100			
101	40		R 01
102	41		R 02
103	42		R 03
104	43		R 04
105	44		R 05
106	45		R 06
107	46		R 07
108	47		R 08
109	48		R 09
110	49		R 10
111	50		R 11
112	51		R 12
113	52		R 13
114	53		R 14



EFJ 5300 series & 5100 series Radios			
VHF Frequency Designator Table 2			
Zone	Channel	Remarks/Use	Designator
2	5	<i>Old Fixed Repeater (WideBand)</i>	P 23
2	6	<i>Old Fixed Repeater (WideBand)</i>	P 25
2	7	<i>Old Fixed Repeater (WideBand)</i>	P 27
2	8	<i>Old Fixed Repeater (WideBand)</i>	P 29
2	9	<i>Old Fixed Repeater (WideBand)</i>	P 31
2	10	<i>Old Fixed Repeater (WideBand)</i>	P 33
2	11	<i>Old Fixed Repeater (WideBand)</i>	P 35
2	12	<i>Old Fixed Repeater (WideBand)</i>	P 39
2	13	<i>Old Fixed Repeater (WideBand)</i>	P 41
2	14	<i>Old Fixed Repeater (WideBand)</i>	P 43
2	15	<i>Old Fixed Repeater (WideBand)</i>	P 45
2	16	<i>Old Fixed Repeater (WideBand)</i>	P 47
3	1	<i>Old Fixed Repeater (WideBand)</i>	PC
3	2	<i>Old Fixed Repeater (WideBand)</i>	PD
3	3	<i>Old Fixed Repeater (WideBand)</i>	P 55
3	4	<i>Old Airborne Repeater (WideBand)</i>	PA
3	5	<i>Old Fixed Repeater (WideBand)</i>	P 56
3	6	<i>Old Airborne Repeater (WideBand)</i>	PB
3	7		
3	8		

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EFJ 5300 series & 5100 series Radios			
VHF Frequency Designator Table 3			
Zone	Channel	Remarks/Use	Designator
3	9		
3	10		
3	11		
3	12		
3	13		
3	14		
3	15		
3	16		
4	1	<i>TX Interoperability (WideBand)</i>	TX LAW 1
4	2	<i>TX Interoperability (WideBand)</i>	TX LAW 2
4	3	<i>TX Interoperability (WideBand)</i>	TX LAW 3
4	4	<i>TX Interoperability (WideBand)</i>	TX FIRE 1
4	5	<i>TX Interoperability (WideBand)</i>	TX FIRE 2
4	6	<i>TX Interoperability (WideBand)</i>	TX FIRE 3
4	7	<i>TX Interoperability (WideBand)</i>	TX MED 1
4	8	<i>TX Interoperability (WideBand)</i>	TX AIR 2
4	9	<i>TX Interoperability (WideBand)</i>	V CALL 10
4	10	<i>TX Interoperability (NarrowBand)</i>	V TAC 11
4	11	<i>TX Interoperability (NarrowBand)</i>	V TAC 12
4	12	<i>TX Interoperability (NarrowBand)</i>	V TAC 13



CAP Aircraft Radios			
VHF Frequency Designator Table 5			
Channel		Remarks/Use	Designator
TDFM	NAT		
077	14	OLD Simplex Channel 2 (<i>WideBand</i>)	V 2
078	15	OLD Simplex Channel 3 (<i>WideBand</i>)	V 3
079			
080	17		PA
081	18		PB
082			P 25
083			P 27
084			P 29
085			P 31
086			P 33
087			P 41
088			P 43
089			P 45
090	32	United States Coast Guard	USCG 6
091	33	United States Coast Guard	USCG 16
092	34	United States Coast Guard	USCG 21A
093	35	United States Coast Guard	USCG 22A
094	36	United States Coast Guard	USCG 23A
095	37	United States Coast Guard	USCG 81A

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CAP Aircraft Radios			
VHF Frequency Designator Table 4			
Channel		Remarks/Use	Designator
TDFM	NAT		
058	29		V CALL 10
059	30		V TAC 11
060	31		V FIRE 21
061			V MED 28
062	00		V LAW 31
063			
064			
065			
066			
067			
068			
069			
070			
071			
072			
073			
074			
075			
076	13	OLD Simplex Channel 1 (<i>WideBand</i>)	V 1



EFJ 5300 series & 5100 series Radios			
VHF Frequency Designator Table 4			
Zone	Channel	Remarks/Use	Designator
4	13	<i>TX Interoperability (NarrowBand)</i>	V TAC 14
4	14	<i>TX Interoperability (NarrowBand)</i>	V TAC 17
4	15	<i>TX Interoperability (NarrowBand)</i>	V TAC 17 D
4	16	<i>TX Interoperability (NarrowBand)</i>	V TAC 19
5	1	<i>TX Interoperability (NarrowBand)</i>	V TAC 19 D
5	2	<i>TX Interoperability (NarrowBand)</i>	V FIRE 21
5	3	<i>TX Interoperability (NarrowBand)</i>	V FIRE 22
5	4	<i>TX Interoperability (NarrowBand)</i>	V FIRE 23
5	5	<i>TX Interoperability (NarrowBand)</i>	V FIRE 24
5	6	<i>TX Interoperability (NarrowBand)</i>	V FIRE 25
5	7	<i>TX Interoperability (NarrowBand)</i>	V FIRE 26
5	8	<i>TX Interoperability (NarrowBand)</i>	V MED 28
5	9	<i>TX Interoperability (NarrowBand)</i>	V MED 29
5	10	<i>TX Interoperability (NarrowBand)</i>	V LAW 31
5	11	<i>TX Interoperability (NarrowBand)</i>	V LAW 32
5	12		
5	13		
5	14		
5	15		
5	16		

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CAP Old Analog Channels and Designators
For use with Radios that are not P25 or Narrow Band Compliant

EFJ 5300 series & 5100 series Radios
VHF Frequency Designator Table 5

Zone	Channel	Remarks/Use	Designator
6	1	Old Direct (WideBand)	V 1
6	2	Old Direct (WideBand)	V 2
6	3	Old Direct (WideBand)	V 3
6	4	Old Direct (WideBand)	V 4
6	5	Old Airborne Repeater (WideBand)	PA
6	6	Old Airborne Repeater (WideBand)	PB
6	7	Old Fixed Repeater (WideBand)	PC
6	8	Old Fixed Repeater (WideBand)	PD
6	9		
6	10		
6	11		
6	12		
6	13		
6	14		
6	15		
6	16		



CAP Aircraft Radios
VHF Frequency Designator Table 3

Channel		Remarks/Use	Designator
TDFM	NAT		
039			
040			
041			
042			
043			
044			
045			
046			
047			
048			
049			
050	21		TX LAW 1
051	22		TX LAW 2
052	23		TX LAW 3
053	24		TX FIRE 1
054	25		TX FIRE 2
055	26		TX FIRE 3
056	27		TX MED 1
057	28		TX AIR 2

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CAP Aircraft Radios			
VHF Frequency Designator Table 2			
Channel		Remarks	Designator
TDFM	NAT		
020			R 67 P
021			R 68 P
022			R 69 P
023			R 70 P
024			R 63 P
025			R 64 P
026			
027			
028			
029			
030			
031			
032			
033			
034			
035			
036			
037			
038			



EFJ 5300 series & 5100 series Radios			
VHF Frequency Designator Table 6			
Zone	Channel	Remarks/Use	Designator
7	1	Liaison: Coast Guard	CG 06
7	2	Liaison: Coast Guard	CG 16
7	3	Liaison: Coast Guard	CG 21A
7	4	Liaison: Coast Guard	CG 22A
7	5	Liaison: Coast Guard	CG 23A
7	6	Liaison: Coast Guard	CG 81A
7	7	Liaison: Coast Guard	CG 82A
7	8	Liaison: Coast Guard	CG 83A
7	9	Weather Channel 1	WX 1
7	10	Weather Channel 2	WX 2
7	11	Weather Channel 3	WX 3
7	12	Weather Channel 4	WX 4
7	13	Weather Channel 5	WX 5
7	14	Weather Channel 6	WX 6
7	15	Weather Channel 7	WX 7
7	16		
8	1		R 01
8	2		R 02
8	3		R 03
8	4		R 04

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EFJ 5300 series & 5100 series Radios VHF Frequency Designator Table 7			
Zone	Channel	Remarks/Use	Designator
8	5		R 05
8	6		R 06
8	7		R 07
8	8		R 08
8	9		R 09
8	10		R 10
8	11		R 11
8	12		R 12
8	13		R 13
8	14		R 14
8	15		R 15
8	16		R 16
9	1		R 17
9	2		R 18
9	3		R 19
9	4		R 20
9	5		R 21
9	6		R 22
9	7		R 23
9	8		R 24



CAP Aircraft Radios VHF Frequency Designator Table 1			
Channel		Remarks/Use	Designator
TDFM	NAT		
001	01	Command Control 1	CC 1
002	02	Command Control 2	CC 2
003	03	Air to Air	AIR 1
004	04	Air to Air	AIR 2
005	06	Tactical 1	TAC 1
006	07		R 67
007	08		R 68
008	09		R 69
009	10		R 70
010	11		R 63
011	12		R 64
012			
013			
014		Command Control 1 Digital	CC 1 P
015		Command Control 2 Digital	CC 2 P
016		Air to Air	AIR 1 P
017		Air to Air	AIR 2 P
018		Guard 1 Digital	GUARD 1 P
019		Tactical 1	TAC 1 P

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EFJ 5300 series & 5100 series Radios
VHF Frequency Designator Table 9

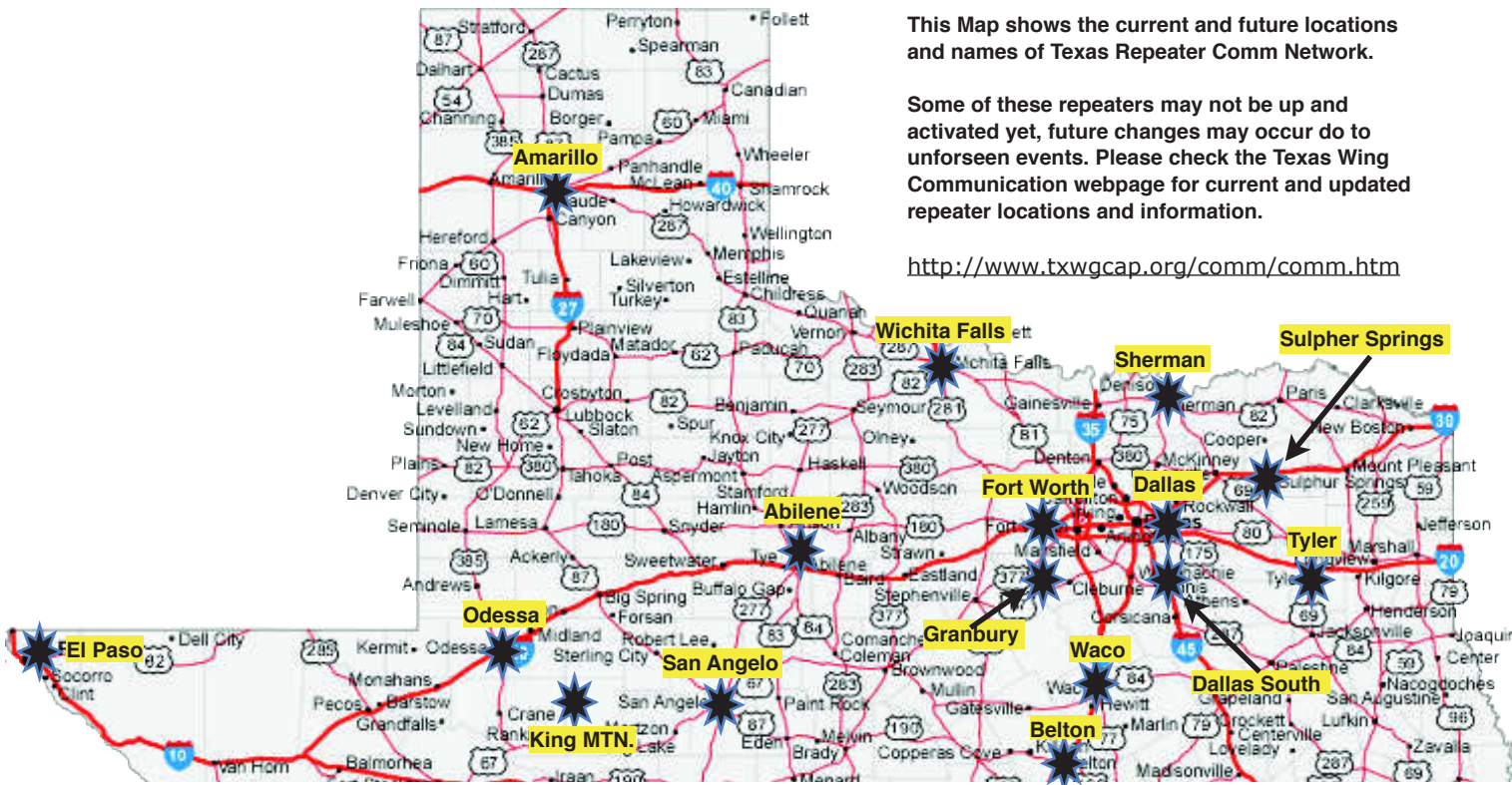
Zone	Channel	Remarks/Use	Designator
10	13		R 45
10	14		R 46
10	15		R 47
10	16		R 48
11	1		R 49
11	2		R 50
11	3		R 51
11	4		R 52
11	5		R 53
11	6		R 54
11	7		R 55
11	8		R 56
11	9		R 57
11	10		R 58
11	11		R 59
11	12		R 60
11	13		R 61
11	14		R 62
11	15		R 63
11	16		R 64



EFJ 5300 series & 5100 series Radios
VHF Frequency Designator Table 8

Zone	Channel	Remarks/Use	Designator
9	9		R 25
9	10		R 26
9	11		R 27
9	12		R 28
9	13		R 29
9	14		R 30
9	15		R 31
9	16		R 32
10	1		R 33
10	2		R 34
10	3		R 35
10	4		R 36
10	5		R 37
10	6		R 38
10	7		R 39
10	8		R 40
10	9		R 41
10	10		R 42
10	11		R 43
10	12		R 44

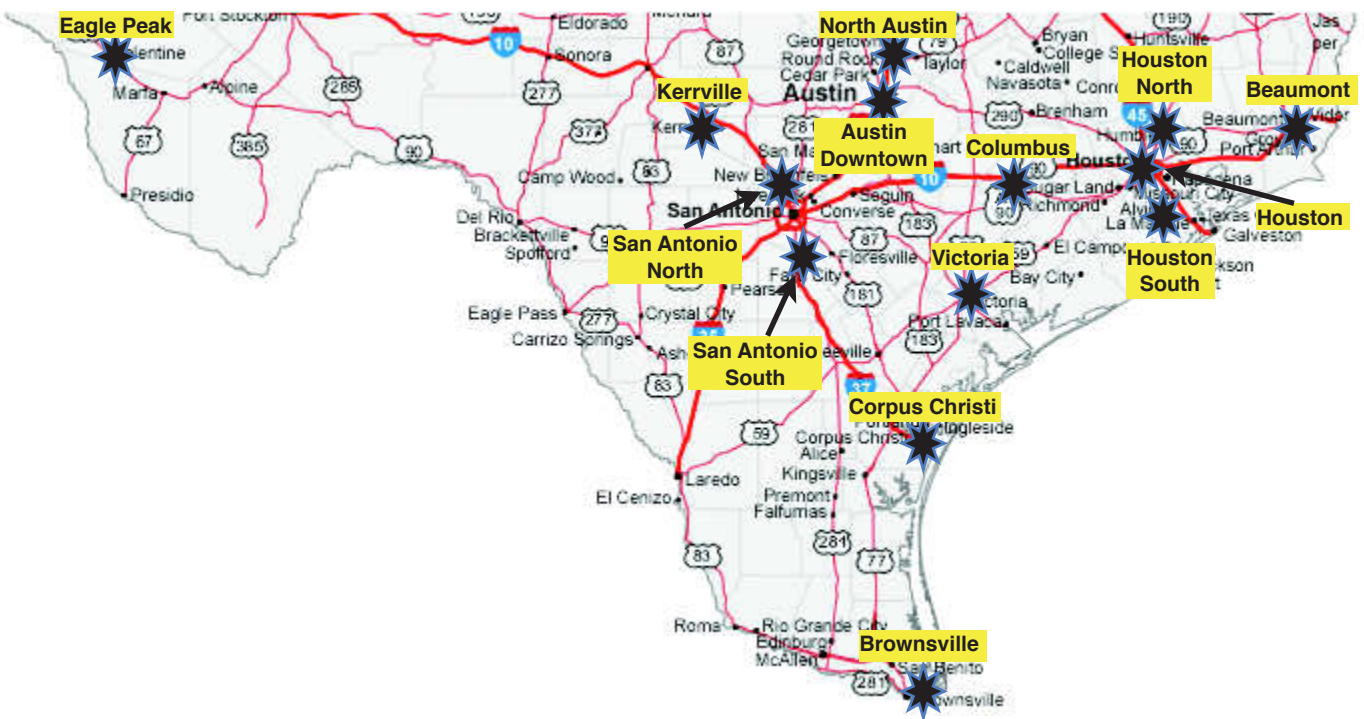
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This Map shows the current and future locations and names of Texas Repeater Comm Network.

Some of these repeaters may not be up and activated yet, future changes may occur do to unforeseen events. Please check the Texas Wing Communication webpage for current and updated repeater locations and information.

<http://www.txwgcap.org/comm/comm.htm>



Narrow Band Repeater Locations