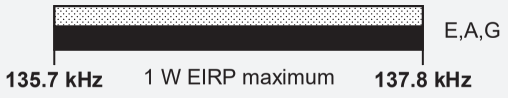
US Amateur Radio Bands

US AMATEUR POWER LIMITS — FCC 97.313 An amateur station must use the minimum transmitter power necessary to carry out the desired communications. (b) No station may transmit with a transmitter power exceeding 1.5 kW PEP.

ARRL The National Association for Amateur Radio®

Amateurs wishing to operate on either 2,200 or 630 meters must first register with the Utilities Technology Council online at **https://utc.org/plc-database-amateur-notification-process/** You need only register once for each band.

2,200 Meters (135 kHz)

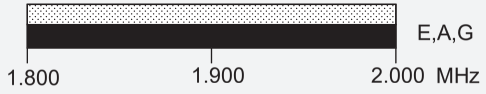


630 Meters (472 kHz)

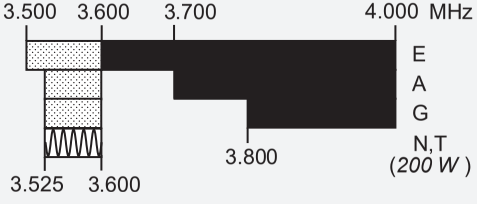
5 W EIRP maximum, except in Alaska within 496 miles of Russia where the power limit is 1 W EIRP.

160 Meters (1.8 MHz)

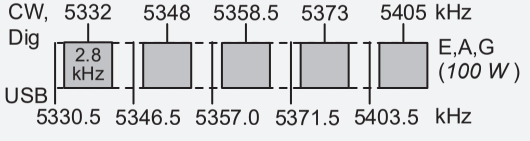
Avoid interference to radiolocation operations from 1.900 to 2.000 MHz



80 Meters (3.5 MHz)

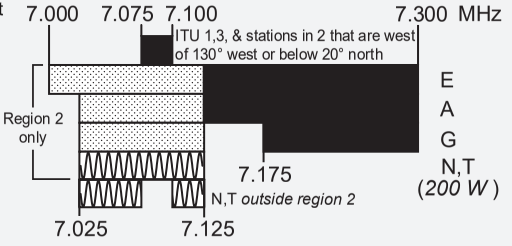


60 Meters (5.3 MHz)



General, Advanced, and Extra licensees may operate on a secondary basis with a maximum ERP of 100 W (relative to a half-wave dipole antenna).

40 Meters (7 MHz)

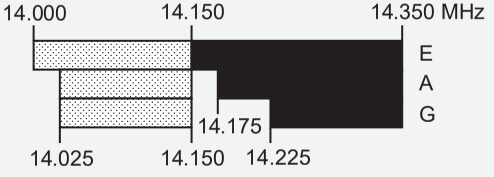


See Sections 97.305(c), 97.307(f)(11) and 97.301(e). These exemptions do not apply to stations in the continental US.

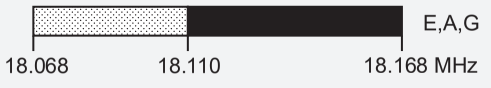
30 Meters (10.1 MHz)

Avoid interference to fixed services outside the US.

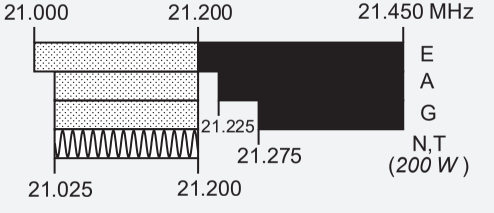
20 Meters (14 MHz)



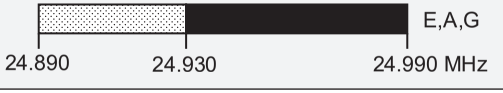
17 Meters (18 MHz)



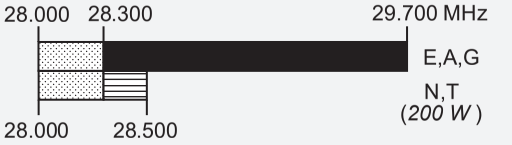
15 Meters (21 MHz)



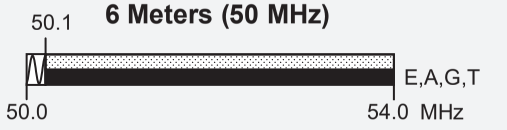
12 Meters (24 MHz)



10 Meters (28 MHz)



6 Meters (50 MHz)



2 Meters (144 MHz)

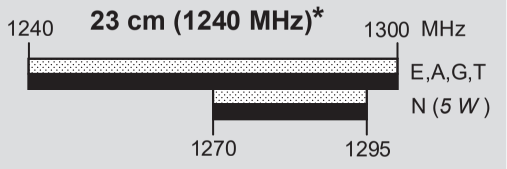
1.25 Meters (222 MHz)

*Geographical and power restrictions may apply to all bands above 420 MHz. See FCC Part 97.303 for information about your area.

70 cm (420 MHz)*

33 cm (902 MHz)*

23 cm (1240 MHz)*



All licensees except Novices are authorized all modes on the following frequencies:

2300-2310 MHz	10.0-10.5 GHz ‡	122.25-123.0 GHz
2390-2450 MHz	24.0-24.25 GHz	134-141 GHz
3400-3450 MHz	47.0-47.2 GHz	241-250 GHz
5650-5925 MHz	76.0-81.0 GHz	All above 275 GHz

‡ No pulse emissions

KEY

Note:

CW operation is permitted throughout all amateur bands.

MCW is authorized above 50.1 MHz, except for 144.0-144.1 and 219-220 MHz.

Test transmissions are authorized above 51 MHz, except for 219-220 MHz

- = RTTY and data
- = phone and image
- = CW *only*
- = SSB phone
- = USB phone, CW, RTTY, and data.
- = Fixed digital message forwarding systems *only*

E = Amateur Extra
A = Advanced
G = General
T = Technician
N = Novice

See *www.arrl.org/band-plan* for detailed band plans.

ARRL
We're At Your Service

ARRL Headquarters:
860-594-0200 (Fax 860-594-0259)
email: hq@arrl.org

Publication Orders:
www.arrl.org/shop
Toll-Free 1-888-277-5289 (860-594-0355)
email: orders@arrl.org

Membership/Circulation Desk:
www.arrl.org/membership
Toll-Free 1-888-277-5289 (860-594-0338)
email: membership@arrl.org

Getting Started in Amateur Radio:
Toll-Free 1-800-326-3942 (860-594-0355)
email: newham@arrl.org

Exams: 860-594-0300 email: vec@arrl.org

 rev. 07/25/2024

The Considerate Operator's Frequency Guide

The following frequencies are generally recognized for certain modes or activities (all frequencies are in MHz) during normal conditions. These are not regulations and occasionally a high level of activity, such as during a period of emergency response, DXpedition or contest, may result in stations operating outside these frequency ranges.

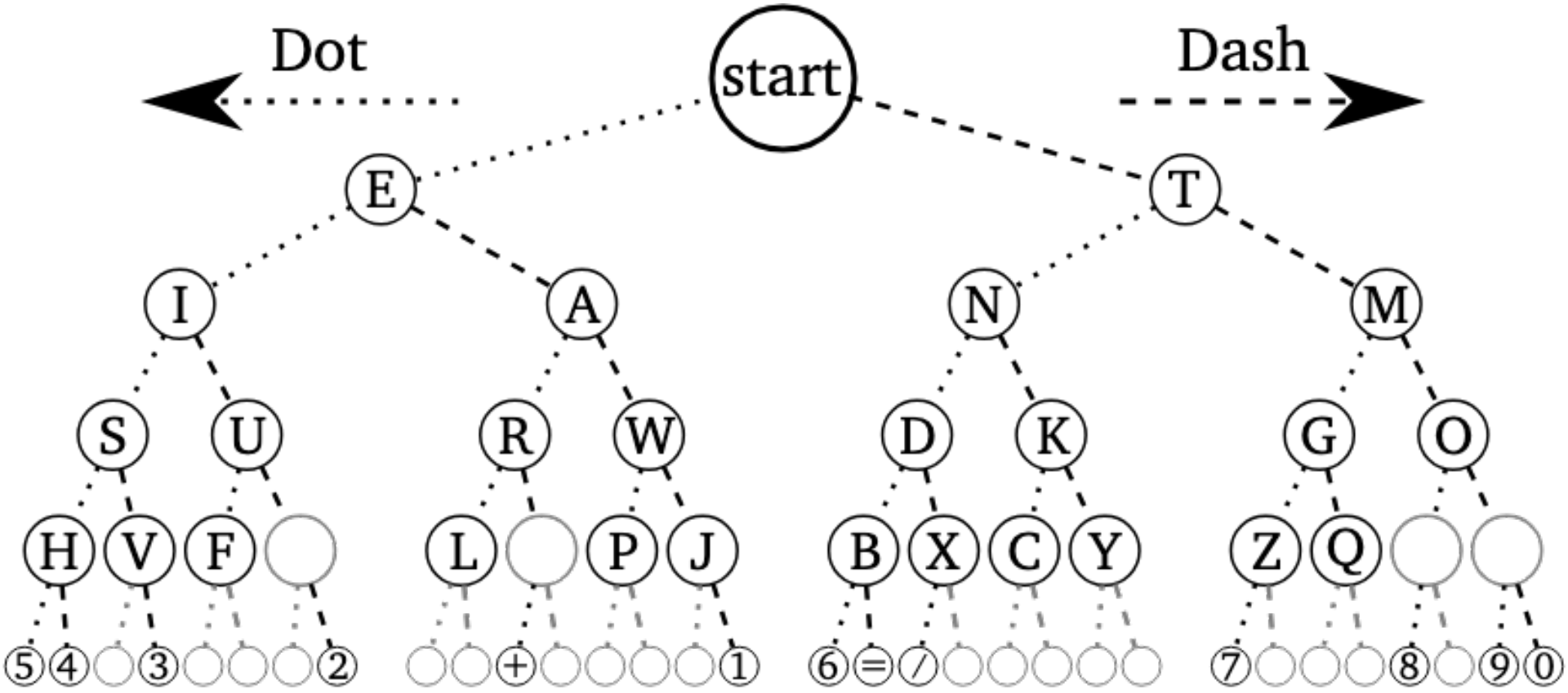
Nothing in the rules recognizes a net's, group's or any individual's special privilege to any specific frequency. Section 97.101(b) of the Rules states that "Each station licensee and each control operator must cooperate in selecting transmitting channels and in making the most effective use of the amateur service frequencies. No frequency will be assigned for the exclusive use of any station." No one "owns" a frequency.

It's good practice — and plain old common sense — for any operator, regardless of mode, to check to see if the frequency is in use prior to engaging operation. If you are there first, other operators should make an effort to protect you from interference to the extent possible, given that 100% interference-free operation is an unrealistic expectation in today's congested bands.

Frequencies	*Modes/Activities*
1.800-2.000	CW
1.800-1.810	Digital Modes
1.810	CW QRP calling frequency
1.843-2.000	SSB, SSTV and other wideband modes
1.910	SSB QRP
1.995-2.000	Experimental
1.999-2.000	Beacons
3.500-3.510	CW DX window
3.560	QRP CW calling frequency
3.570-3.600	RTTY/Data
3.585-3.600	Automatically controlled data stations
3.590	RTTY/Data DX
3.790-3.800	DX window
3.845	SSTV
3.885	AM calling frequency
3.985	QRP SSB calling frequency
7.030	QRP CW calling frequency
7.040	RTTY/Data DX
7.070-7.125	RTTY/Data
7.100-7.105	Automatically controlled data stations
7.171	SSTV
7.173	D-SSTV
7.285	QRP SSB calling frequency
7.290	AM calling frequency
10.130-10.140	RTTY/Data
10.140-10.150	Automatically controlled data stations
14.060	QRP CW calling frequency
14.070-14.095	RTTY/Data
14.095-14.0995	Automatically controlled data stations
14.100	IBP/NCDXF beacons
14.1005-14.112	Automatically controlled data stations
14.230	SSTV
14.233	D-SSTV
14.236	Digital Voice
14.285	QRP SSB calling frequency
14.286	AM calling frequency
18.100-18.105	RTTY/Data
18.105-18.110	Automatically controlled data stations
18.110	IBP/NCDXF beacons
18.162.5	Digital Voice
21.060	QRP CW calling frequency
21.070-21.110	RTTY/Data
21.090-21.100	Automatically controlled data stations
21.150	IBP/NCDXF beacons
21.340	SSTV
21.385	QRP SSB calling frequency
24.920-24.925	RTTY/Data
24.925-24.930	Automatically controlled data stations
24.930	IBP/NCDXF beacons
28.060	QRP CW calling frequency
28.070-28.120	RTTY/Data
28.120-28.189	Automatically controlled data stations
28.190-28.225	Beacons
28.200	IBP/NCDXF beacons
28.385	QRP SSB calling frequency
28.680	SSTV
29.000-29.200	AM
29.300-29.510	Satellite downlinks
29.520-29.580	Repeater inputs
29.600	FM simplex
29.620-29.680	Repeater outputs

ARRL band plans for frequencies above 28.300 MHz are shown in *The ARRL Repeater Directory* and on **www.arrl.org**.

A	.-	N	-.	0	-----	'	.----.
B	-...	O	---	1	.----	!	-.-.--
C	-.-.	P	.--.	2	..---	/	-..-.
D	-..	Q	--.-	3	...--	(	-.--.
E	.	R	.-.	4	....-	)	-.--.-
F	..-.	S	...	5	.....	&	.-...
G	--.	T	-	6	-....	:	---...
H	....	U	..-	7	--...	;	-.-.-.
I	..	V	...-	8	---..	=	-...-
J	.---	W	.--	9	----.	+	.-.-.
K	-.-	X	-..-	.	.-.-.-	-	-....-
L	.-..	Y	-.--	,	--..--	_	..--.-
M	--	Z	--..	?	..--..		


Dot
start
Dash
E
T
I
A
N
M
S
U
R
W
D
K
G
O
H
V
F
L
P
J
B
X
C
Y
Z
Q
5
4
3
2
+
1
6
=
/
7
8
9
0

A	Alpha	N	November
B	Bravo	O	Oscar
C	Charlie	P	Papa
D	Delta	Q	Quebec
E	Echo	R	Romeo
F	Foxtrot	S	Sierra
G	Golf	T	Tango
H	Hotel	U	Uniform
I	India	V	Victor
J	Juliet	W	Thiskey
K	Kilo	X	X-ray
L	Lima	Y	Yankee
M	Mike	Z	Zulu

QRG	Your exact frequency (or that of ___) is ___kHz.	Will you tell me my exact frequency (or that of ___)?
QRL	I am busy (or busy with ___).	Are you busy? (Used to ask if frequency is in use)
QRM	Your transmission is being interfered with ___ (1–5).	Is my transmission being interfered with?
QRN	I am troubled by static ___ (1–5).	Are you troubled by static?
QRO	Increase power.	Shall I increase power?
QRP	Decrease power.	Shall I decrease power?
QRQ	Send faster (___wpm).	Shall I send faster?
QRS	Send more slowly (___wpm).	Shall I send more slowly?
QRT	Stop sending.	Shall I stop sending?
QRU	I have nothing for you.	Have you anything for me?
QRV	I am ready.	Are you ready?
QRX	I will call you again at ___ (on ___kHz).	When will you call me again?
QRZ	**You are being called by ___ (on ___kHz).**	**Who is calling me?**
QSB	Your signals are fading.	Are my signals fading?
QSK	I can hear you between signals.	Can I break in on your transmission?
QSL	**I am acknowledging receipt.**	**Can you acknowledge receipt?**
QSO	**I can communicate with ___ direct (or via ___).**	**Can you communicate with ___ direct or by relay?**
QSP	I will relay to ___.	Will you relay to ___?
QST	General call to all amateurs (CQ ARRL).	–
QSX	I am listening to ___ on ___kHz.	Will you listen to ___ on ___kHz?
QSY	Change to another frequency (or ___kHz).	Shall I change to another frequency?
QTC	I have ___ messages for you (or for ___).	How many messages have you to send?
QTH	**My location is ___.**	**What is your location?**
QTR	The time is ___.	What is the correct time?

Prosigns

AR	End of message	Often sent as “di-dah-di-dah-dit” (•–•–•)
AS	Stand by	“di-dah-di-di-dit”; used to ask someone to wait
BK	Break	Used to invite the other station to transmit immediately
BT	Separator	Break between thoughts or paragraphs (“dah-di-di-di-dah”)
CL	Closing down	Used when signing off the air permanently or for the day
CQ	Calling any station	General call: “di-dah-di-dah” then “dah-dah-di-dah”
CT	Start of message	Used to begin formal traffic messages
EE	Error	Correcting a mistake; usually sent as “di-di-di-di” rapidly
K	Go ahead	Invitation for the other station to transmit
KN	Go ahead, named station only	Stronger version of K—only the called station should respond
R	Roger (message received)	Confirms receipt of last transmission
SK	End of contact	“Silent Key”; final sign-off (di-di-di-dah-di-dah)
SN	Understood	Used in formal message handling (equivalent to “QSL” or “Roger”)

SSB

A (Calling CQ): "CQ CQ CQ, this is K1ABC, Kilo One Alpha Bravo Charlie, calling CQ and standing by."

B (Responding): "K1ABC, this is W2XYZ, Whiskey Two X-ray Yankee Zulu."

A: "W2XYZ, good afternoon, you're 59 here in Boston, Massachusetts. Name is John, Juliet Oscar Hotel November. Back to you, W2XYZ from K1ABC."

B: "Thanks John, you're 59 as well in New Jersey. Name is Mike, Mike India Kilo Echo. Nice to meet you, John. K1ABC, this is W2XYZ."

A: "Very good Mike, thanks for the QSO. 73 and have a great day. K1ABC is now clear."

SSB Contest

Activator (A) calling: "CQ POTA, CQ Parks on the Air, this is K1ABC, Kilo One Alpha Bravo Charlie, calling CQ POTA and standing by."

Hunter (B) responds: "K1ABC, this is W2XYZ."

Activator (A): "W2XYZ, you're 59 into park K-1234."

Hunter (B): "Thanks for the 59. You're 57 in New Jersey. 73!"

Activator (A): "Copy the 57 New Jersey. Thanks for hunting! QRZ, this is K1ABC, park K-1234."

CW

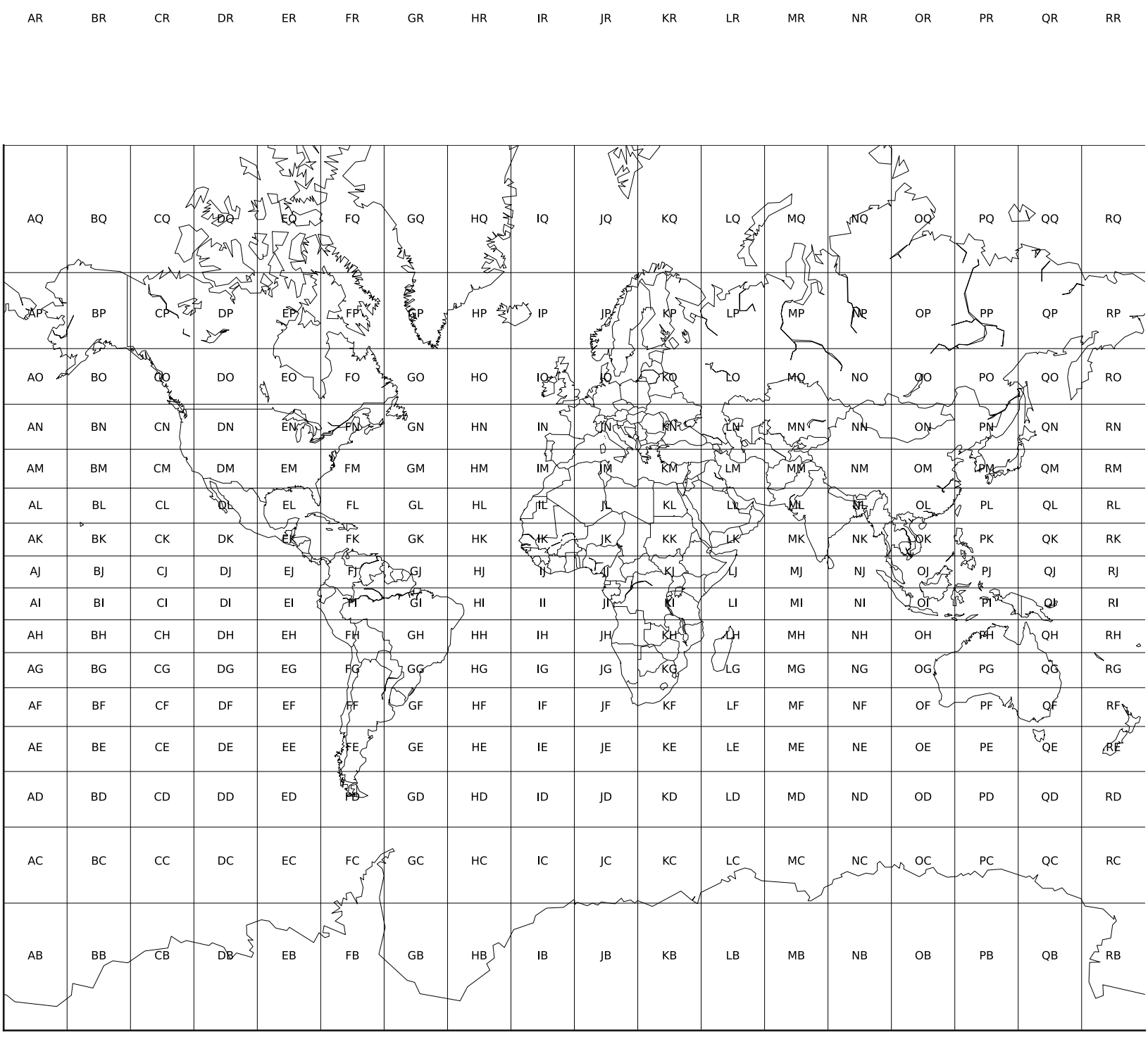
A (Calling CQ): "CQ CQ CQ DE K1ABC K1ABC K1ABC K"
(Calling any station, this is K1ABC, standing by)

B (Responding): "K1ABC DE W2XYZ W2XYZ K"
(*K1ABC, this is W2XYZ, over*)

A: "W2XYZ DE K1ABC UR 599 IN MA. NAME JOHN. HW? W2XYZ DE K1ABC K"
(*You're 599 in Massachusetts. My name is John. How do you copy?*)

B: "K1ABC DE W2XYZ R UR 589 IN NJ. NAME MIKE. RIG KX3, 10W. WX SUNNY. K1ABC DE W2XYZ K"
(*Roger, you're 589 in New Jersey. My name is Mike. My rig is a KX3 running 10 watts. Weather is sunny.*)

A: "R TNX MIKE. 73 ES HPE CUAGN. W2XYZ DE K1ABC SK"
(*Roger, thanks Mike. Best regards and hope to see you again. Signing off.*)


AR BR CR DR ER FR GR HR IR JR KR LR MR NR OR PR QR RR
AQ BQ CQ DQ EQ FQ GQ HQ IQ JQ KQ LQ MQ NQ OQ PQ QQ RQ
AP BP CP DP EP FP GP HP IP JP KP LP MP NP OP PP QP RP
AO BO CO DO EO FO GO HO IO JO KO LO MO NO OO PO QO RO
AN BN CN DN EN FN GN HN IN JN KN LN MN NN ON PN QN RN
AM BM CM DM EM FM GM HM IM JM KM LM MM NM OM PM QM RM
AL BL CL DL EL FL GL HL IL JL KL LL ML NL OL PL QL RL
AK BK CK DK EK FK GK HK IK JK KK LK MK NK OK PK QK RK
AJ BJ CJ DJ EJ FJ GJ HJ IJ JJ KJ LJ MJ NJ OJ PJ QJ RJ
AI BI CI DI EI FI GI HI II JI KI LI MI NI OI PI QI RI
AH BH CH DH EH FH GH HH IH JH KH LH MH NH OH PH QH RH
AG BG CG DG EG FG GG HG IG JG KG LG MG NG OG PG QG RG
AF BF CF DF EF FF GF HF IF JF KF LF MF NF OF PF QF RF
AE BE CE DE EE FE GE HE IE JE KE LE ME NE OE PE QE RE
AD BD CD DD ED FD GD HD ID JD KD LD MD ND OD PD QD RD
AC BC CC DC EC FC GC HC IC JC KC LC MC NC OC PC QC RC
AB BB CB DB EB FB GB HB IB JB KB LB MB NB OB PB QB RB

U.S. Grid Square Map

Maidenhead

CN DN EN FN

CM DM EM FM

DL EL FL

Washington Montana North Dakota Michigan U.P. Maine

Oregon Idaho South Dakota Minnesota Wisconsin Vermont New Hampshire

Wyoming Nebraska Iowa Illinois Michigan New York Massachusetts

Conneticut Rhode Island N.Y.

Pennsylvania New Jersey

Nevada Utah Colorado Kansas Missouri Indiana Ohio Maryland Delaware D.C.

West Virginia Virginia

California Arizona New Mexico Oklahoma Arkansas Kentucky Tennessee North Carolina

South Carolina

Texas Louisiana Mississippi Alabama Georgia

Florida

120° 110° 100° 90° 80° 70° 50° 40° 30°

0 100 200 300 400 500 600 700 800 Kilometers

0 100 200 300 400 Miles

Albers Equal Area Projection - Conterminous USA

Icom America, Inc. • 2380 116th Ave. NE, Bellevue, WA 98004 • www.icomamerica.com

ICOM

Major VHF/UHF Contests

Mid January, Full Weekend
ARRL VHF Sweepstakes

Early March, Full Weekend
ARRL International DX Contest Phone

Early April, Spring Sprint–144 MHz

Early April, Spring Sprint–222 MHz

Early April, Spring Sprint–432 MHz

Early May, Spring Sprint–50 MHz

Mid May, Full Weekend
CQ National Fox Hunting Weekend

Early June, Full Weekend
ARRL VHF QSO Party

Mid June, Full Weekend,
SMIRK 6 meter QSO Party

Mid/Late June, Full Weekend
ARRL Field Day

Mid July,
CQ World Wide VHF Contest

Mid July, Full Weekend
IARU HF World Championships

Early August, Full Weekend
ARRL UHF Contest

Mid September, Full Weekend
ARRL September VHF QSO Party

Courtesy: ***CQ Magazine & ARRL***

Icom Grid Square Tips:

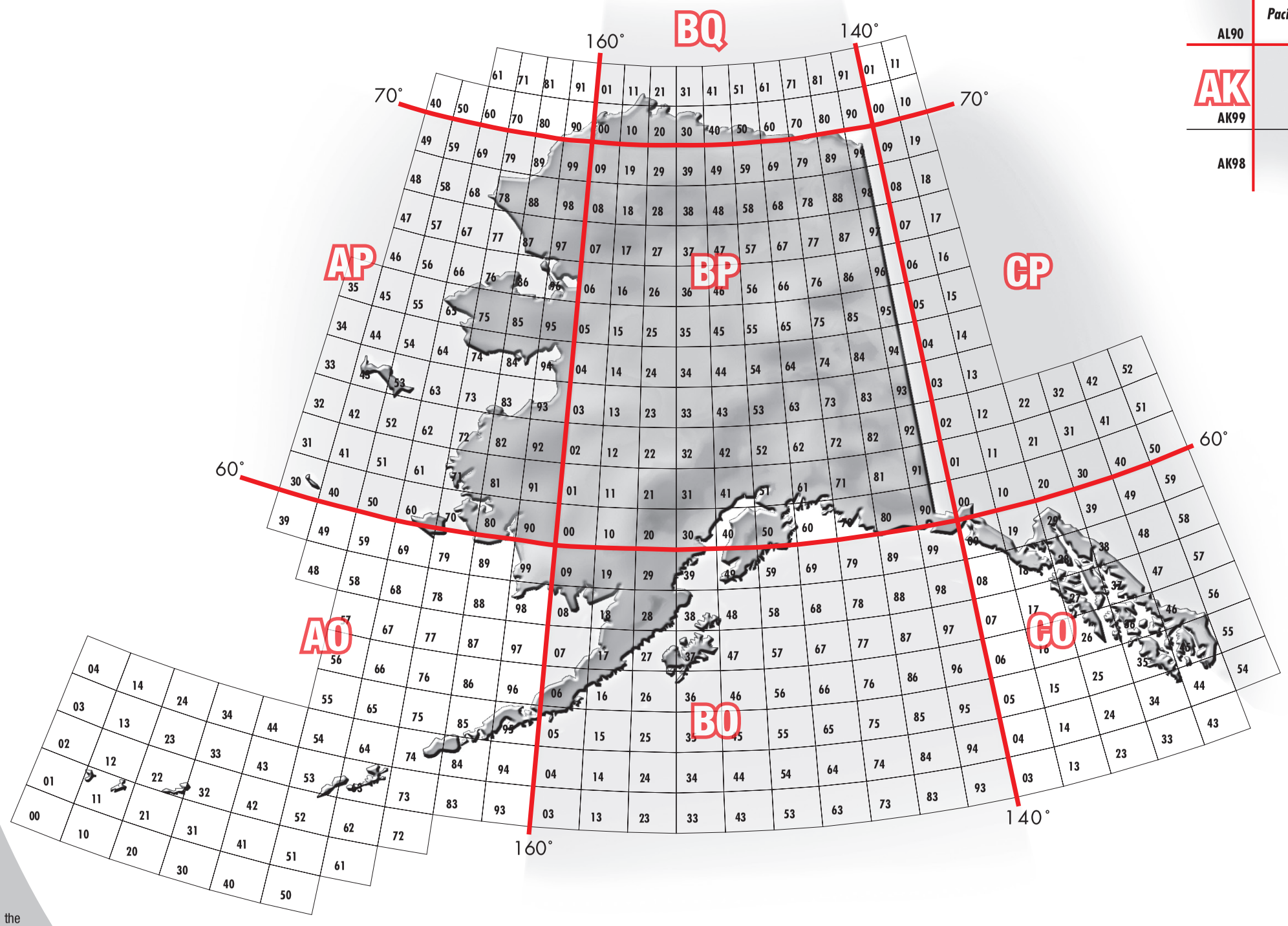
1. Say your grid square location when operating on VHF & UHF bands.
2. Many portable GPS receivers can read out Maidenhead* grid squares automatically.
3. Say your grid square letters phonetically.
   Example: for grid 13 in region DM say "delta, mike, one, three" on air.
4. Give your general location along with your grid square.
5. Have fun on VHF & UHF!

*An instrument of the Maidenhead Locator System (named after the town outside London where it was first conceived by a meeting of European VHF managers in 1980), a grid square measures 1° latitude by 2° longitude and measures approximately 70 x 100 miles in the continental US. A grid square is indicated by two letters (the field) and two numbers (the square).. "
From ARRL source: http://www.arrl.org/locate/gridinfo.html

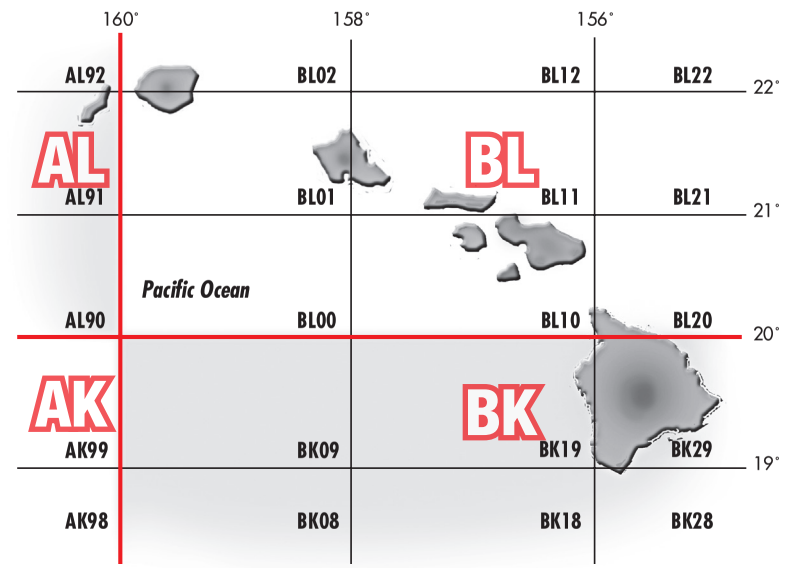
U.S. Grid Square Map

Maidenhead

Alaska



Hawaii**



0 10 20 30 40 50 60 70 800 Kilometers
0 100 200 300 400 Miles

Albers Equal Area Projection - Alaska

Icom America Inc. • 2380 - 116th Ave. NE, Bellevue, WA 98004
www.icomamerica.com

**All maps except Hawaii use an Albers Equal Area Projection. The map of Hawaii is based on the grid square map information from ARRL.

Ø = Zero; "I." = Island; "Is." = Islands

COMMON PREFIXES OF COUNTRIES (2004)

UPDATED 4/04

PREFIX	COUNTRY	PREFIX	COUNTRY	PREFIX	COUNTRY	PREFIX	COUNTRY	PREFIX	COUNTRY
1AØ	Sov. Mil. Order of Malta	C8-C9	Mozambique	H4	Solomon Is.	OJØ	Market Reef	VK9L	Lord Howe I.
1S, 9MØ	Spratly Is.	CA-CE	Chile	H4Ø	Temotu Province	OK-OL	Czech Republic	VK9M	Mellish Reef
3A	Monaco	CEØX	San Felix & San Ambrosio Is.	HA	Hungary	OM	Slovak Republic	VK9N	Norfolk I.
3B6, 3B7	Agalega & St. Brandon Is.	CEØY	Easter I.	HB	Switzerland	ON-OT	Belgium	VK9W	Willis I.
3B8	Mauritius	CEØZ	Juan Fernandez Is.	HBØ	Liechtenstein	OX	Greenland	VK9X	Christmas I.
3B9	Rodriguez I.	CE9	Antarctica	HC-HD	Ecuador	OY	Faroe Is.	VO	Canada
3C	Equatorial Guinea	CM	Cuba	HC8-HD8	Galapagos Is.	OZ	Denmark	VP2E	Anguilla
3CØ	Annobon I.	CN	Morocco	HFØ	South Shetland Is.	P2	Papua New Guinea	VP2M	Montserrat
3D2	Fiji Is.	CO	Cuba	HG	Hungary	P4	Aruba	VP2V	British Virgin Is.
3D2	Rotuma I.	CP	Bolivia	HH	Haiti	P5	North Korea	VP5	Turks & Caicos Is.
3D2	Conway Reef	CT	Portugal	HI	Dominican Republic	PA-PI	Netherlands	VP6	Pitcairn I.
3DA	Swaziland	CT3	Madeira Is.	HJ-HK	Colombia	PJ2, PJ4	Bonaire, Curacao	VP8	Antarctica
3V	Tunisia	CU	Azores	HKØ	San Andres & Providencia	PJ5-PJ8	St. Maarten, Saba, St. Eustatius	VP8	Falkland Is.
3W	Vietnam	CV-CX	Uruguay	HKØ	Malpelo I.	PJ9	Netherlands Antilles	VP8	South Georgia I.
3X	Guinea	CYØ	Sable I.	HL	South Korea	PP-PY	Brazil	VP8	South Shetland Is.
3Y	Bouvet I.	CY9	St. Paul I.	HO-HP	Panama	PPØ-PYØF	Fernando de Noronha	VP8	South Orkney Is.
3Y	Peter I I.	D2, D3	Angola	HQ-HR	Honduras	PPØ, PYØS	St. Peter & St. Paul Rocks	VP8	South Sandwich Is.
4J-4K	Azerbaijan	D4	Cape Verde	HS, E2	Thailand	PPØ, PYØT	Trindade I. & Martim Vaz Is.	VP9	Bermuda
4L	Georgia	D6	Comoros	HV	Vatican	PZ	Surinam	VQ9	Chagos Is.
4P-4S	Sri Lanka	DA-DL	Germany	HZ	Saudi Arabia	RA-RZ	European Russia	VS6	Hong Kong
4U_UN	United Nations HQ	DU-DZ	Philippines	I	Italy	RA-RZ	Asiatic Russia	VU	Andaman & Nicobar Is.
4U_ITU	ITU Headquarters	E2	Thailand	ISØ, IMØ	Sardinia	R1FJ	Franz Josef Land	VU	Laccadive Is.
4W	Timor-Leste	E3	Eritrea	J2	Djibouti	R1MV	Malyj Vysotskij I.	VU	India
4X, 4Z	Israel	E4	Palestine	J3	Grenada	SØ	Western Sahara	VY	Canada
5A	Libya	EA-EH	Spain	J5	Guinea-Bissau	S2	Bangladesh	W	USA
5B	Cyprus	EA6-EH6	Balearic Is.	J6	St. Lucia	S5	Slovenia	XA-XI	Mexico
5H-5I	Tanzania	EA8-EH8	Canary Is.	J7	Dominica	S7	Seychelles	XA4-XI4	Revilla Gigedo
5N-5O	Nigeria	EA9-EH9	Ceuta & Melilla	J8	St. Vincent	S9	Sao Tome & Principe	XT	Burkina Faso
5R-5S	Madagascar	EI-EJ	Ireland	JA-JS	Japan	SA-SM	Sweden	XU	Cambodia
5T	Mauritania	EK	Armenia	JD1	Minami-Torishima	SN-SR	Poland	XV	Vietnam
5U	Niger	EL	Liberia	JD1	Ogasawara	ST	Sudan	XW	Laos
5V	Togo	EM-EO	Ukraine	JT-JV	Mongolia	SU	Egypt	XX9	Macao
5W	Western Samoa	EP-EQ	Iran	JW	Svalbard	SV/A	Mount Athos	XY-XZ	Myanmar
5X	Uganda	ER	Moldova	JX	Jan Mayen	SV-SZ	Greece	YA	Afghanistan
5Y-5Z	Kenya	ES	Estonia	JY	Jordan	SV5	Dodecanese	YB-YH	Indonesia
6V-6W	Senegal	ET	Ethiopia	K	U.S.A.	SV9	Crete	YI	Iraq
6Y	Jamaica	EU-EW	Belarus	KC4	Antarctica	T2	Tuvalu	YJ	Vanuatu
7O	Yemen	EX	Kyrgzstan	KC6	Palau	T3Ø	West Kiribati Is.	YK	Syria
7P	Lesotho	EY	Tajikistan	KG4	Guantanamo Bay	T31	Central Kiribati Is.	YL	Latvia
7Q	Malawi	EZ	Turkmenistan	KHØ	Marianas Is.	T32	East Kiribati Is.	YN	Nicaragua
7T-7Y	Algeria	F	France	KH1	Baker & Howland Is.	T33	Banaba I.	YO-YR	Romania
8P	Barbados	FG	Guadeloupe	KH2	Guam	T5	Somalia	YS	El Salvador
8Q	Maldive Is.	FH	Mayotte	KH3	Johnston I.	T7	San Marino	YT-YU	Serbia & Montenegro
8R	Guyana	FJ	Saint Martin	KH4	Midway I.	T8	Palau	YU3	Slovenia
9A	Croatia	FK	New Caledonia	KH5	Palymra & Jarvis Is.	T9	Bosnia-Herzegovina	YV-YY	Venezuela
9G	Ghana	FK/C	Chesterfield Is.	KH5K	Kingman Reef	TA-TC	Turkey	YVØ	Aves I.
9H	Malta	FM	Martinique	KH6-KH7	Hawaii	TD	Guatemala	YZ	Serbia & Montenegro
9I, 9J	Zambia	FO	Austral I.	KH7K	Kure I.	TE	Costa Rica	Z2	Zimbabwe
9K	Kuwait	FO	Clipperton I.	KH8	American Samoa	TF	Iceland	Z3	Macedonia
9L	Sierra Leone	FO	French Polynesia	KH9	Wake I.	TG	Guatemala	ZA	Albania
9MØ	Spratly Is.	FO	Marquesas I.	KL7	Alaska	TI	Costa Rica	ZB2	Gibraltar
9M2, 9M4	West Malaysia	FP	St. Pierre & Miquelon	KP1	Navassa I.	TI9	Cocos I.	ZC4	UK Sov. Base on Cyprus
9M6, 9M8	East Malaysia	FR	Reunion I.	KP2	Virgin Is.	TJ	Cameroon	ZD7	St. Helena I.
9N	Nepal	FR/E	Europa Is.	KP3-KP4	Puerto Rico	TK	Corsica	ZD8	Ascension I.
9Q-9T	Democratic Rep. of Congo	FR/G	Glorioso Is.	KP5	Desecheo I.	TL	Central African Republic	ZD9	Tristan da Cunha & Gough Is.
9U	Burundi	FR/J	Juan de Nova Is.	LA-LN	Norway	TN	Congo	ZF	Cayman Is.
9V	Singapore	FR/T	Tromelin I.	LO-LW	Argentina	TR	Gabon	ZK1	South Cook Is.
9X	Rwanda	FS	Saint Martin	LU	South Georgia I.	TT	Chad	ZK1	North Cook Is.
9Y-9Z	Trinidad & Tobago	FT5W	Crozet Is.	LU	South Shetland Is.	TU	Ivory Coast	ZK2	Niue
A2	Botswana	FT5X	Kerguelen Is.	LU	South Orkney Is.	TY	Benin	ZK3	Tokelau Is.
A3	Tonga	FT5Z	Amsterdam & St. Paul Is.	LU	South Sandwich Is.	TZ	Mali	ZL-ZM	New Zealand
A4	Oman	FW	Wallis & Futuna Is.	LX	Luxembourg	UA2	Kaliningrad	ZL7	Chatham Is.
A5	Bhutan	FY	French Guiana	LY	Lithuania	UJ-UM	Uzbekistan	ZL8	Kermadec Is.
A6	United Arab Emirates	G	England	LZ	Bulgaria	UN-UQ	Kazakhstan	ZL9	Auckland & Campbell Is.
A7	Qatar	GC	Wales	M	England	UR-UZ	Ukraine	ZP	Paraguay
A9	Bahrain	GD	Isle of Man	MD	Isle of Man	V2	Antigua & Barbuda	ZR-ZU	South Africa
AA-AK	USA	GH	Jersey	MI	Northern Ireland	V3	Belize	ZS8	Prince Edward & Marion Is.
AP-AS	Pakistan	GI	Northern Ireland	MJ	Jersey	V4	St. Kitts & Nevis		
BS7	Scarborough Reef	GJ	Jersey	MM	Scotland	V5	Namibia		
BT	China	GM	Scotland	MU	Guernsey	V6	Micronesia		
BV	Taiwan	GN	Northern Ireland	MW	Wales	V7	Marshall Is.		
BV9P	Pratas I.	GP	Guernsey	N	USA	V8	Brunei, Darussalam		
BY	China	GS	Scotland	OA-OC	Peru	VE	Canada		
C2	Nauru	GT	Isle of Man	OD	Lebanon	VK	Australia		
C3	Andorra	GU	Guernsey	OE	Austria	VKØ	Heard I.		
C5	The Gambia	GW	Wales	OF-OI	Finland	VKØ	Macquarie I.		
C6	Bahamas	GX	England	OHØ	Aland Is.	VK9C	Cocos (Keeling) Is.		

BAND PLAN FREQUENCY ASSIGNMENTS

23-cm, 1240-1300 MHz ARRL Band Plan

MHz	Use
1240-1246	ATV #1
1246-1248	Narrow-bandwidth FM point-to-point links and digital, duplex with 1258-1260 MHz
1248-1252	Digital communications
1252-1258	ATV #2
1258-1260	Narrow-bandwidth FM point-to-point links and digital, duplexed with 1246-1252 MHz
1260-1270	Satellite uplinks
1260-1270	Wide-bandwidth experimental, simplex ATV
1270-1276	Repeater inputs, FM and linear, paired with 1282-1288 MHz, 239 pairs every 25 kHz, e.g., 1270.025, 1270.050, 1270.075, etc., 1271.0-1238.0 MHz uncoordinated test pair
1276-1282	ATV #3
1282-1288	Repeater outputs, paired with 1270-1276 MHz
1288-1294	Wide-bandwidth experimental, simplex ATV
1294-1295	Narrow-bandwidth FM simplex services, 25 kHz channels
1294.5	National FM simplex calling frequency
1295-1297	Narrow bandwidth weak-signal communications (no FM)
1295.0-1295.8	SSTV, FAX, ACSB, experimental
1295.8-1296.0	Reserved for EME, CW expansion
1296.0-1296.05	EME exclusive
1296.07-1296.08	CW beacons
1296.1	CW, SSB calling frequency
1296.4-1296.6	Crossband linear translator input
1296.6-1296.8	Crossband linear translator output
1296.8-1297.0	Experimental beacons (exclusive)
1297-1300	Digital communications

ARRL 70-cm Wavelength Band Plan, 420-450 MHz

MHz	Use
420.00-426.00	ATV repeater or simplex with 421.25 MHz video carrier control links and experimental
426.00-432.00	ATV simplex with 427.250 MHz video carrier frequency
432.00-432.08	EME (Earth-Moon-Earth)
432.08-432.10	Weak-signal CW
432.100	70 cm CW/SSB calling frequency
432.10-433.00	Mixed-mode and weak-signal work
432.30-432.40	New beacon band
433.00-435.00	Auxiliary/repeater links
435.00-438.00	Satellite only uplink/downlink
438.00-444.00	ATV repeater input with 439.250 MHz video carrier frequency and repeater links
442.00-445.00	Repeater inputs and outputs (local option)
445.00-447.00	Shared by auxiliary and control links, repeaters and simplex (local option); 446.00 MHz national simplex frequency
447.00-450.00	Repeater inputs and outputs

ARRL 33-cm Wavelength Band Plan, 902-928 MHz

MHz	Use
902-904	Narrow-bandwidth, weak-signal communications
902.0-902.8	SSTV, FAX, ACSB, experimental
902.8-903.0	Reserved for EME, CW expansion
903.0-903.05	EME exclusive
903.07-903.08	CW beacons
903.1	CW, SSB calling frequency
903.4-903.6	Crossband linear translator inputs
903.6-903.8	Crossband linear translator outputs
903.8-904.0	Experimental beacons exclusive

ARRL 33-cm Wavelength Band Plan, 902-928 MHz (cont.)

MHz	Use
904-906	Digital communications
906-907	Narrow bandwidth FM-simplex services, 25 kHz channels
906.50	National simplex frequency
907-910	FM repeater inputs paired with 919-922 MHz; 119 pairs every 25 kHz; e.g., 907.025, 907.050, 907.075, etc., 908-920 MHz uncoordinated pair
910-916	ATV
916-918	Digital communications
918-919	Narrow-bandwidth, FM control links and remote bases
919-922	FM repeater outputs, paired with 907-910 MHz
922-928	Wide-bandwidth experimental, simplex ATV, Spread Spectrum

ARRL 2 Meter Wavelength Band Plan, 144-148 MHz

MHz	Use
144.00-144.05	EME (CW)
144.275-144.300	Propagation beacons
144.06-144.10	General CW and weak signals
144.10-144.20	EME and weak-signal SSB
144.200	National SSB calling frequency
144.200-144.275	General SSB operation, upper sideband
144.275-144.300	Beacon band
144.30-144.50	OSCAR subband plus simplex
144.50-144.60	Linear translator outputs
144.60-144.90	FM repeater inputs
144.90-145.10	Weak signal and FM simplex
145.10-145.20	Linear translator outputs plus packet
145.20-145.50	FM repeater outputs
145.50-145.80	Miscellaneous and experimental modes
145.80-146.00	OSCAR subband – satellite use only!
146.01-146.37	Repeater inputs
146.40-146.58	Simplex
146.61-146.97	Repeater outputs

ARRL 2 Meter Wavelength Band Plan, 144-148 MHz (cont.)

MHz	Use
147.00-147.39	Repeater outputs
147.42-147.57	Simplex
147.60-147.99	Repeater inputs

ARRL 6 Meter Wavelength Band Plan, 50.0-54.0 MHz

MHz	Use
50.000-50.100	CW and beacons
50.060-50.080	U.S. beacons
50.100-50.600	SSB
50.125	SSB DX calling frequency
50.200	SSB domestic calling frequency (Note: Suggest QSY up for local & down for long-distance QSOs)
50.400	AM calling frequency
50.600-51.000	Experimental and special modes
50.700	RTTY calling frequency
50.800-50.980	Radio Control (R/C) channels, 10 channels spaced 20 kHz apart (new)
51.000-51.100	Pacific DX window
51.000-52.000	Newly authorized FM repeater allocation
51.100-52.000	FM simplex
52.000-52.050	Pacific DX window
52.000-53.000	FM repeater and simplex
53.000-54.000	Present radio control (R/C) channels, 10 channels spaced 100 kHz apart

SOUTHERN CALIFORNIA REGIONAL NOTE: Southern California, plus other major metropolitan cities throughout the country, may adopt local 2 Meter band plans slightly different than what appears here. See your local Icom dealer for more local details.

References

CW Parse Tree
https://commons.wikimedia.org/wiki/File:Morse-code-tree.svg

World Maidenhead Grid Map
https://www.dxengineering.com/techarticles/dxegeneralnews/download-a-free-worldwide-grid-square-map-from-dx-engineering

ARRL Frequency Allocation Chart
https://www.arrl.org/graphical-frequency-allocations

ARRL Considerate Operator's Frequency Guide
https://www.arrl.org/considerate-operator

ARRL Communicating with Other Hams
https://www.arrl.org/files/file/Get%20on%20the%20Air/Comm%20w%20Other%20Hams-Q%20Signals.pdf

Icom US Grid Square Map
https://www.icomamerica.com/lineup/amateur/Band_Plan_Map/

Icom Common Prefixes of Countries
https://www.hamqsl.com/bandchar.pdf