

UTC (Zulu) Time Conversion Chart

UTC (Zulu)	PST/ALDT	PDT/MST	MDT/CST	CDT/EST	EDT/AST	ALST	HST	UTC (Zulu)	PST/ALDT	PDT/MST	MDT/CST	CDT/EST	EDT/AST	ALST	HST
0000*	1600	1700	1800	1900	2000	1500	1400								
0100	1700	1800	1900	2000	2100	1600	1500	1300	0500	0600	0700	0800	0900	0400	0300
0200	1800	1900	2000	2100	2200	1700	1600	1400	0600	0700	0800	0900	1000	0500	0400
0300	1900	2000	2100	2200	2300	1800	1700	1500	0700	0800	0900	1000	1100	0600	0500
0400	2000	2100	2200	2300	0000*	1900	1800	1600	0800	0900	1000	1100	1200	0700	0600
0500	2100	2200	2300	0000*	0100	2000	1900	1700	0900	1000	1100	1200	1300	0800	0700
0600	2200	2300	0000*	0100	0200	2100	2000	1800	1000	1100	1200	1300	1400	0900	0800
0700	2300	0000*	0100	0200	0300	2200	2100	1900	1100	1200	1300	1400	1500	1000	0900
0800	0000*	0100	0200	0300	0400	2300	2200	2000	1200	1300	1400	1500	1600	1100	1000
0900	0100	0200	0300	0400	0500	0000*	2300	2100	1300	1400	1500	1600	1700	1200	1100
1000	0200	0300	0400	0500	0600	0100	0000*	2200	1400	1500	1600	1700	1800	1300	1200
1100	0300	0400	0500	0600	0700	0200	0100	2300	1500	1600	1700	1800	1900	1400	1300
1200	0400	0500	0600	0700	0800	0300	0200	2400	1600	1700	1800	1900	2000	1500	1400

*0000 and 2400 are interchangeable.

2400 is associated with the date of the day ending, 0000 with the day just starting.

UTC = Coordinated Universal Time, or **Zulu**
PST = Pacific Standard Time (UTC - 8 hours)
ALDT = Alaskan Daylight Time (UTC - 8 hours)
PDT = Pacific Daylight Time (UTC - 7 hours)
MST = Mountain Standard Time (UTC - 7 hours)
MDT = Mountain Daylight Time (UTC - 6 hours)
CST = Central Standard Time (UTC - 6 hours)
CDT = Central Daylight Time (UTC - 5 hours)
EST = Eastern Standard Time (UTC - 5 hours)
EDT = Eastern Daylight Time (UTC - 4 hours)
AST = Atlantic Standard Time (UTC - 4 hours)
ALST = Alaskan Standard Time (UTC - 9 hours)
HST = Hawaiian Standard Time (UTC - 10 hours)

Data from Feb. 2004 QST, p67, 68

Communicating with Other Hams

Contact Basics: Good Amateur Practices

Q-Signals

Q-signals are a system of radio shorthand as old as wireless and developed from even older telegraphy codes. Q-signals are a set of abbreviations for common information that save time and allow communication between operators who don't speak a common language. Modern ham radio uses them extensively. The table below lists the most common Q-signals used by hams. While Q-signals were developed for use by Morse operators, their use is common on phone, as well. You will often hear, "QRZed?" as someone asks "Who is calling me?" or "I'm getting a little QRM" from an operator receiving some interference or "Let's QSY to 146.55" as two operators change from a repeater frequency to a nearby simplex communications frequency.

Q-Signals	
Abbr.	Questions
QRG	Your exact frequency (or that of _____) is _____ kHz. Will you tell me my exact frequency (or that of _____)?
QRL	I am busy (or I am busy with _____). Are you busy? Usually used to see if a frequency is busy.
QRM	Your transmission is being interfered with _____ (1. Nil; 2. Slightly; 3. Moderately; 4. Severely; 5. Extremely). Is my transmission being interfered with?
QRN	I am troubled by static _____. (1 to 5 as under QRM.) 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 _____ hours (on _____ kHz). When will you call me again? Minutes are usually implied rather than hours.
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; break in on my transmission. Can you hear me between your signals and if so can I break in on your transmission?
QSL	I am acknowledging receipt. Can you acknowledge receipt (of a message or transmission)?
QSO	I can communicate with _____ direct (or relay through _____). Can you communicate with _____ direct or by relay?
QSP	I will relay to _____. Will you relay to _____?
QST	General call preceding a message addressed to all amateurs and ARRL members. This is in effect "CQ ARRL."
QSX	I am listening to _____ on _____ kHz. Will you listen to _____ on _____ kHz?
QSY	Change to transmission on another frequency (or on _____ kHz). Shall I change to transmission on another frequency (or on _____ kHz)?
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?

ITU Phonetic Alphabet		
Letter	Word	Pronunciation
A	Alfa	AL FAH
B	Bravo	BRAH VOH
C	Charlie	CHAR LEE
D	Delta	DELL TAH
E	Echo	ECK OH
F	Foxtrot	FOKS TROT
G	Golf	GOLF
H	Hotel	HOH TELL
I	India	IN DEE AH
J	Juliet	JEW LEE ETT
K	Kilo	KEY LOH
L	Lima	LEE MAH
M	Mike	MIKE
N	November	NO VEM BER
O	Oscar	OSS CAH
P	Papa	PAH PAH
Q	Quebec	KEH BECK
R	Romeo	ROW ME OH
S	Sierra	SEE AIR RAH
T	Tango	TANG GO
U	Uniform	YOU NEE FORM
V	Victor	VIK TAH
W	Whiskey	WISS KEY
X	X-Ray	ECKS RAY
Y	Yankee	YANG KEY
Z	Zulu	ZOO LOO

Note: The **boldfaced** syllables are emphasized. The pronunciations shown in this table were designed for those who speak any of the international languages. The pronunciations given for "Oscar" and "Victor" may seem awkward to English-speaking people in the US.

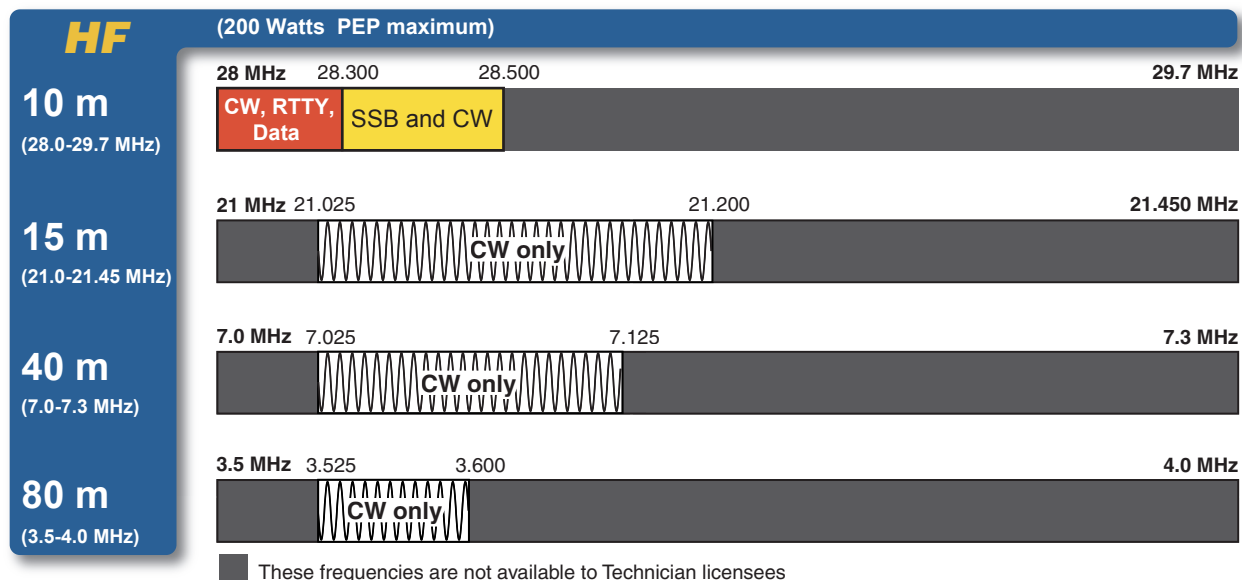
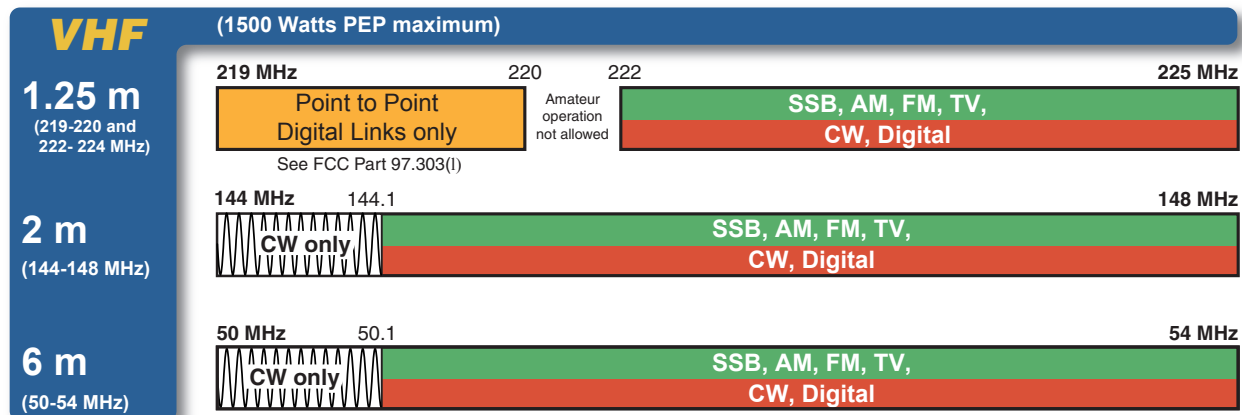
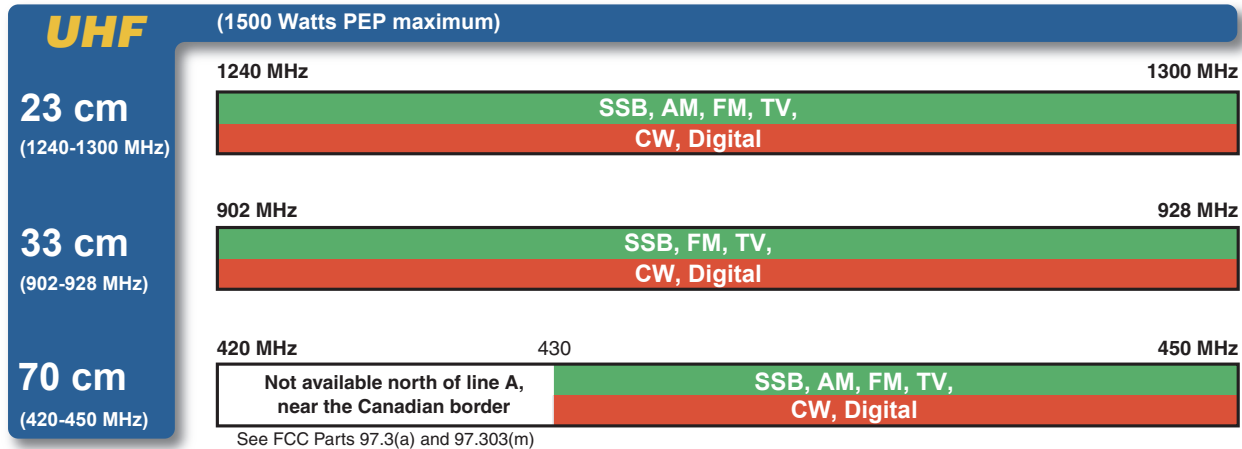
US Amateur Radio Technician Privileges

This chart shows privileges and band plan recommendations for each of the frequencies, as granted by the FCC to the Technician licensee. It is good amateur practice to follow the band plan established by the Amateur Radio community. The band plan is developed so that spectrum allocated for our use is used most effectively. You'll find a complete description of the band plan online at www.arrrl.org/band-plan.

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Notes:

Technician Licenses may use up to 1500 Watts PEP on the VHF and higher bands, but are limited to 200 Watts on the HF bands. You also have privileges to explore these microwave bands with CW, Digital, SSB, AM, FM and TV:

2300-2310 MHz	2390-2450 MHz	3300-3500 MHz	5650-5925 MHz	10.0-10.5 GHz	24.0-24.25 GHz
47.0-47.2 GHz	76.0-81.0 GHz	122.25-123.0 GHz	134-141 GHz	241-250 GHz	All above 275 GHz

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