

CW Games

A fun and stress-free way to learn and practice Morse code.

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Many amateurs feel timid about learning CW. Others are not comfortable using computers or software programs, and have difficulty integrating third-party CW decoders and other products due to the expense or complexity of the setup. So, I designed three games that can be played on the air to teach new CW operators how to copy Morse code. The intended result of the games is that all players will increase their skill level and confidence. In addition, it's a fun way to use the bands, and before long, making CW contacts will be easier.

The three games — “Echo,” “Call You, Call Me,” and “QSO” — are played at levels based on the player's skill. Each game builds the player's skills and confidence for the next level. By the time the player has reached the QSO game, they are holding a CW QSO, and before they know it, they will be having CW QSOs with other stations.

Basic Rules

1 Use MF or HF on the air. Pick a clear frequency somewhere in the CW portion of the amateur band. See the sidebar, “Advice for Choosing a Frequency,” for frequency suggestions and other tips.

2 Choose a partner whom you know and trust. That person will be the “Game Runner” and should be an experienced CW operator. New CW operators may feel anxious about using CW with strangers who may not be patient. So, choose a partner who is understanding.

3 Play the games regularly, and set a practical schedule. Play long enough to get some time sending and copying CW. Start with a few sessions per week at 10 to 15 minutes per session, and adjust your schedule. Practice makes perfect.

4 Adjust the rules of each game to suit the player. The rules are not rigid, so consider them a starting point. However, sticking to the rules will help the player stay focused.

Advice for Choosing a Frequency

Coordinating with your mentor is the first step when choosing an HF frequency. Each band has many allocations for various modes and uses. Good options are 3.562 MHz on 80 meters and 7.062 MHz on 40 meters. If you're using 20 meters, you can try 14.062 MHz. These frequencies should be fine, but consult with your mentor and be flexible.

Because the CW games are primarily for learning Morse code, keeping clear of DXers and contests is important.

The CW games were designed for on-air activity, but that is only a suggestion. Instead of using the HF bands, you can use an online video teleconference platform with your mentor, or use a tabletop CW code practice oscillator in person. The main objective is that your mentor can hear your signal and you can copy theirs.

Echo

The goal of this game is to copy the letters, numbers, and symbols you hear and resend them. This will help you hear individual characters, and over time, you'll recognize them, and it will help you send what you intend to. Echo offers a simple form of copying the unexpected, which is what CW operators do.

The Game Runner will begin by sending a letter, number, or symbol three times. The player should send back, or *echo*, what the Game Runner sends. For instance, if the Game Runner sends A A A K, the player should send back A K (the letter K means “That's the end of my message”). As the player gets better at recognizing the letter, number, or symbol and can copy the message well, the Game Runner should send the message two times and then only once. The Game Runner should change the message periodically so the player can learn different characters.

Once the player correctly sends back everything the Game Runner sent, the Game Runner should add more letters, numbers, or symbols. If you are playing on the air, make sure to send call signs at least every 10 minutes to comply with station identification (ID) rules. To end the game, send SK.

Echo Example

The Game Runner is KE7JVD, and the player is WJ7DW.

The Game Runner Sends:	The Player Replies:
WJ7DW DE KE7JVD Q Q Q K	Q K
7 7 7 K	7 K
Z Z Z K	Z K
Q Q K	Q K
WJ7DW DE KE7JVD Z Z Z K	KE7JVD DE WJ7DW Z K
Q K	KE7JVD DE WJ7DW SK

The Game Runner should not send more than one letter, number, or symbol followed by K unless the player can reliably echo the Game Runner. After some sessions have transpired, the Game Runner can add more symbols per message, and the game may progress as follows:

The Game Runner Sends:	The Player Replies:
WJ7DW DE KE7JVD UR UR UR K	UR K
BT BT BT K	BT K
GD GD GD K	? K
GD GD GD K	GD K
BT BT K	BT K
WJ7DW DE KE7JVD GE GE GE K	KE7JVD DE WJ7DW GE K
FB FB FB K	FB K
BT K	KE7JVD DE WJ7DW SK

Notes

✓ Use the Call Sign DE Call Sign formality only if the Game Runner does so. This is to remind you to ID your station call sign at the required intervals, and it's a good habit to have for periodically making the ID transmission.

✓ If the player hears a character or group of characters and cannot copy it, they can send a question mark (?), and the Game Runner will resend their message. This will initially seem repetitive, as the player learning CW may need more tries to copy the short burst of characters. It's not a waste to ask to repeat a transmission during the game because this

may happen with a real QSO.

✓ The Game Runner can resend the same letters, numbers, or symbols sporadically to reinforce them. The Game Runner must effectively act like a referee at times to judge the player's progress. This is why the Game Runner should be patient — to let the player learn and make mistakes. If the player fails to copy something, the Game Runner should let the player ask to repeat it before trying to pile on something new.

Call You, Call Me

The goal of this game is to quickly recognize your call sign when it is being sent to you. This is a very important skill to practice because just about everything in amateur radio involves knowing when you are being called. Imagine trying to work a DX station. If you give your call sign and the DX station calls you, you need to be able to recognize your own call sign. Another case is when you call CQ. The station that responds will surely send your call sign. Understanding your call sign seems kind of obvious and basic, but that's the point. Being able to copy your call sign when you hear it is an essential skill.

The Game Runner will call the player by their call sign first. To respond, the player will call back the Game Runner by their call sign. When the player calls the Game Runner, the Game Runner will call the player again, and so on. The Game Runner and the player practice this so the player can learn to hear and understand their call sign when someone is trying to call them. Some players may find it repetitive, but it is still good practice, especially when you find yourself in unsettled band conditions where it may be necessary to copy the call sign of your QSO partner.

The letter R should be sent at the end of every call (the letter R means "Okay, keep going"). Like during

Echo, the player can send SK at the end of their call instead of R to let the Game Runner know the game is over.

Call You, Call Me Example

There are three rounds in this example.

The Game Runner Sends:	The Player Replies:
WJ7DW DE KE7JVD R	KE7JVD DE WJ7DW R
WJ7DW DE KE7JVD R	KE7JVD DE WJ7DW R
WJ7DW DE KE7JVD R	WJ7DW DE KE7JVD SK

QSO

The goal of this game is to understand full-length questions and sentences and be able to answer them. By now, the players should have practiced two- to four-letter groups.

The Game Runner will send simple questions. The questions can be tailored to the player's skill level, but the questions should be short and yield short answers from the player. There is no wrong answer. For beginners, avoid asking questions like the make and model of their transceiver or the brand of antenna they use. The Game Runner may ask those questions if that is where they feel the player's skill level is. It would be best to stick to one-word questions that yield simple one- or two-word answers. The player should apply the skills acquired from Echo and Call You, Call Me.

Like during Echo, if the player does not understand the question, they should send the question mark so that the Game Runner can repeat the question. A new question should be asked when the player copies the previous question well. Similar to Echo, the Game Runner will ask the same questions again in a random order. Before they know it, players will be able to copy a real QSO.

QSO Example

This example is annotated with the meaning of the questions and answers.

The Game Runner Sends:	The Player Replies:
WJ7DW DE KE7JVD UR NAME ? K (Your name?)	NAME IS BOB K (My name is Bob)
UR QTH ? K (Your location?)	QTH IS FALL CITY (My location is Fall City)
MY RST? K (What is my report?)	UR RST 5NN K (You are 599)
HW CPY ? K (How copy?)	FB CPY K (Fine business copy)
QSL ? K (Confirm?)	QSL K (Confirmed)
UR PWR ? K (What is your power?)	? (I didn't copy, send again)
UR PWR ? K (What is your power?)	R 100 W K (Okay, 100 W)
QSL MGR ? K (How do I QSL?)	QSL VIA WA6SLI K (Send QSL to WA6SLI)
FB QSO TU 73 K (Great conversation, thank you, best regards)	R TU 73 K (Yes, thanks, best regards)

Even though these games target the player to learn CW, the Game Runner will get a good workout with their CW key or paddle, too, which makes it worthwhile. Our local CW net utilizes these games, and I hope other amateurs who are aspiring CW operators will as well.



In the digital edition of *QST* (www.arrl.org/qst), ARRL's CEO David Minster, NA2AA; Education and Development Manager Steve Goodgame, K5ATA; Public Relations and Outreach Manager Sierra Harrop, W5DX, and Director of Publications and Editorial Department Becky Schoenfeld, W1BXY, play the CW Games.

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