



## **CW Academy**

### **ADVANCED Level CW Curriculum**

Practice Instructions and Homework Assignments

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## Introduction

Welcome to CW Academy's Advanced course. Before you take note of the homework assignments below, you should understand how we expect you to practice during the eight-week course.

Your course is divided into 16 sessions corresponding to a twice weekly on-line meeting with your advisor. You are expected to practice the assignment for session 1, for example, before on-line session 1, so that the advisor can assess your progress and any problems. So, you practice the session 1 assignments, for the days preceding session 1, and then practice the session 2 assignment, for the days preceding session 2, and so on.

Most vital to the learning process is your personal practice between sessions. The sessions are for coaching purposes, therefore, your disciplined approach to practice is a must.

There are five key tools we use to ensure your success in this course. One is Zoom, SKYPE or other type of conferencing software, which enables us to meet in a virtual training room two times per week for approximately an hour, on-line. We can see and hear each other, and can hear any code being sent. Your advisor will discuss this with you before your sessions start.

Two other tools are Morse Runner and RufzXP. These are used to build up your speed and proficiency in copying call signs. Morse Runner also provides practice copying serial numbers. In both cases, you use the application and enter information via keyboard. This will allow you to become proficient at using contest logging programs should you be interested in learning or improving your contesting skills.

A fourth tool is the use of Practice Audio Files that you can download from the [CWops website](#). These help build head copy skill. These are meant to be listened to and copied in one's head.

A fifth tool is the weekly CWT on-air events managed by CWops. These occur each Wednesday at 1300 Z, 1900 Z, Thursday 0300 Z and 0700 Z. Each one is an hour long and provides a great opportunity to practice and learn contesting technique.

In addition to these tools, we also make use of headcopy-oriented files that you can download from the [CWops website](#). These are meant to be listened to and copied in one's head.

In essence, then, Advanced focuses on two popular areas of CW in ham radio – contesting and ragchewing. In contesting, callsign copy and entry is a critical skill, so Morse Runner, RufzXP, and CWT will provide a lot of practice. In ragchewing at speeds over 20 wpm, writing what you copy will quickly limit you. Learning to copy and retain information without writing is a critical skill, too. In Advanced you will be doing both.

Equally important to copy skills is sending skills. Your advisor will provide you with exercises to emphasize good sending techniques and proficiency.

When you meet twice weekly with your advisor, he or she will be assessing how you are doing using interactive exercises and other means. The idea is to provide you with feedback that will help you overcome any barriers you encounter.

As with all of our CW Academy courses your success is intimately tied to your daily practice. We hope you enjoy the course and achieve noteworthy improvements in all aspects of your CW skills.

## **Preliminary Preparation**

The assignments that follow are based on a Monday/Thursday on-line schedule. That is important to understand because the CWT assignments are meant to fall on Wednesdays. If the schedule is different, you may have to move the CWT assignment around so that it corresponds to a Wednesday.

All documents and applications referenced below can be downloaded from the “CWA Student Resources” area under “CW Academy” on the [CWops website](#).

There are essentially two types of files used for practicing headcopy skills. They are all accessed by selecting “Advanced Practice Files” from the CWA Student Resources area. The first files are “Short Story Practice Files”. The Short Story Practice Files each have a unique name (such as SS 301) and are available at speeds of 10, 13, 15, 18, 20, 25 and 30 words per minute.

The second types of files are designated as “QSO Practice Files”. These QSO Practice Files each have a unique name (such as QSO 301) and are available at speeds of 10, 15, 20, 25, 30, and 35 words per minute.

Regardless of the type of Practice File, all copy should be done as headcopy (no writing or typing) other than jotting down notes where indicated. This is essential to building copy proficiency.

There also are files for practicing CWT skills. These files are denoted “CWT Practice Files” and have titles such as “Chapter xx.” They are all sent at high speed (35wpm). These files are accessed by selecting “Advanced Practice Files” on the CWA Student Resources page. They are listed on that page as “Level 2 and Advanced CWT Practice Files”.

Finally, we use RufzXP and Morse Runner to practice callsign, number, and data entry skills related to contesting. These programs should be downloaded from the Internet. Download and read the “Using RufzXP” and “Using Morse Runner” documents before the sessions begin.

Both RufzXP and Morse Runner allow you to set speeds. Your assignments will be described along with mode and speed settings. Your advisor will go over how to use them prior to the sessions beginning.

# Assignments

## Session 1:

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### Day one:

Short Story headcopy practice file SS 301 – 20. Please listen to it once and just pick out without writing the words that pop out for you. Then listen to it a second time to see if you can capture the essence of it.

QSO headcopy practice file QSO 301 - 20. It is a whole QSO simulation. Don't write everything you hear but you can jot down notes.

Who is calling CQ? Who answers the CQ? What is the RST, QTH and Name info for

CQer? What is the RST, QTH and Name info for caller? What are the topics of conversation?

### Day two:

Using RufzXP, set starting speed at 15 wpm and do a full cycle until it ends. Type in callsigns as you copy them, and note your result at the end of the session.

Using Morse Runner, set speed at 20 wpm, using "single call" mode (pull down "run" tab and select "single calls"). Set "run for" time at 20 minutes. Note your results at the end of the session.

### Day three:

CWT practice file CWT Chapter 01. This is a simulation of a typical CWT "running" station. He is sending "CQ CWT" to start then answering calling stations one after another. There will be three different stations he works and he will repeat his exchange (name and number OR state) each time. So, you have three opportunities to capture his call, his name, his number each time you play the file. Take as many times as you need to get all three pieces of info and write them down.

## Session 2:

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### **Day one:**

CWT practice file CWT Chapter 02. This is a simulation of a typical CWT “running” station. He is sending “CQ CWT” to start then answering calling stations one after another. There will be three different stations he works and he will repeat his exchange (name and number OR state) each time. So, you have three opportunities to capture his call, his name, his number each time you play the file. Take as many times as you need to get all three pieces of info and write them down.

### **Day two:**

Monitor any session of CWT (Wed 1300Z, 1900Z, Thu 0300Z or 0700Z) and tune around, finding stations that are “running” (e.g. staying on a frequency and soliciting calls). Try to decode at least 10 different running stations, and jot down:

Callsign name number OR state info for each (e.g. K6RB Rob 3)

They will be going quite fast so don’t get frustrated. Just sit on the frequency and do what you did in Tuesday’s assignment – listen, listen and listen some more. You’ll get it.

### **Day three:**

Short Story headcopy practice file SS 302 - 20. Please listen to it once and just pick out the words that pop out for you. Then listen to it a second time to see if you can capture the essence of it. Don’t write anything – just listen and absorb.

QSO practice file QSO 302 -20. It is a whole QSO simulation. Don’t write everything you hear but you can jot down notes.

Who is calling CQ? Who answers the CQ? What is the RST, QTH and Name info for

CQer? What is the RST, QTH and Name info for caller? What are the topics of conversation?

## Session 3:

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### Day one:

Short Story headcopy practice SS 303 – 20. Please listen to it once and just pick out the words that pop out for you. Then listen to it a second time to see if you can capture the essence of it. Don't write anything – just listen and absorb.

QSO headcopy practice QSO 303-20. It is a whole QSO simulation. Don't write everything you hear but you can jot down notes.

Who is calling CQ? Who answers the CQ? What is the RST, QTH and Name info for

CQer? What is the RST, QTH and Name info for caller? What are the topics of conversation?

### Day two:

Using RufzXP, set starting speed at 15 wpm and do a full cycle until it ends. Type in callsigns as you copy them, and note your result at the end of the session.

Using Morse Runner, set speed at 20 wpm, using "single call" mode (pull down "run" tab and select "single calls"). Set "run for" time at 20 minutes. Note your results at the end of the session.

### Day three:

CWT practice file CWT Chapter 03. This is a simulation of a typical CWT "running" station. He is sending "CQ CWT" to start then answering calling stations one after another. There will be three different stations he works and he will repeat his exchange (name and number OR state) each time. So, you have three opportunities to capture his call, his name, his number each time you play the file. Take as many times as you need to get all three pieces of info and write them down.

## Session 4:

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### **Day one:**

CWT practice file CWT Chapter 04. This is a simulation of a typical CWT “running” station. He is sending “CQ CWT” to start then answering calling stations one after another. There will be three different stations he works and he will repeat his exchange (name and number OR state) each time. So, you have three opportunities to capture his call, his name, his number each time you play the file. Take as many times as you need to get all three pieces of info and write them down.

### **Day two:**

CWT - Monitor any session of CWT (Wed 1300Z, 1900Z, Thu 0300Z or 0700Z) and tune around, finding stations that are “running” (e.g. staying on a frequency and soliciting calls). Once you have gotten all the info, wait for a pause between QSOs and send your callsign once. If after three tries you don’t make the QSO with that running station, move on and try another. Remember, if you make the QSO, after the other station sends his exchange (which you already know), just send “TU name CWA” and wait for a “TU”

Try to make at least 5 QSOs during a CWT session and jot down call/name/number or S/P/C of the station you worked. Also note the band and approximate time.

### **Day three:**

Short Story headcopy practice SS 304 – 25. First listen to it at 25 wpm . Then listen at 20 wpm (SS 304 - 20). As before, just let it wash over you and see if you get the gist of the text.

QSO headcopy practice QSO 304 – 20.

Who is calling CQ? Who answers the CQ? What is the RST, QTH and Name info for

CQer? What is the RST, QTH and Name info for caller? What are the topics of conversation?



## Session 5

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### **Day one:**

Short Story headcopy practice SS 305 – 25. Listen to it once and just try to grab as many words as you can in your head. Then do SS 305 – 20. Listen to it once and just try to grab as many words as you can.

QSO headcopy practice QSO 305- 20.

Who is calling CQ? Who answers the CQ? What is the RST, QTH and Name info for

CQer? What is the RST, QTH and Name info for caller? What are the topics of conversation?

Take as many times at it as you need to get all the info down

### **Day two:**

RufzXP: do one whole cycle with starting speed of 20 wpm; then do a cycle with starting speed of 15 wpm. Compare results.

Morse Runner: using single-call mode, do 10 minutes with starting speed of 30 wpm; then do 10 minutes with starting speed of 25 wpm. Compare results.

### **Day three:**

Short Story headcopy practice SS 306 – 25. Listen to it once and just try to grab as many words as you can in your head. Then do SS 306 – 20. Listen to it once and just try to grab as many words as you can.

QSO headcopy practice QSO 306 – 20.

Who is calling CQ? Who answers the CQ? What is the RST, QTH and Name info for

CQer? What is the RST, QTH and Name info for caller? What are the topics of conversation?

Take as many times at it as you need to get all the info down.

## Session 6:

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### **Day one:**

CWT practice file CWT Chapter 05. Take as long as you need to copy the running station's callsign and exchange info.

Do a Morse Runner for 10 minutes, speed set 25...but this time, go to the run menu and choose "WPX competition." Make sure activity level is set at 1. It is set to go for 60 minutes, so only do about 10 minutes and then stop. Look at your score in lower right-hand window area and note your points, then close the program.

### **Day two:**

CWT, any session or sessions (Wed 1300Z, 1900Z, Thu 0300Z or 0700Z).

Try to make at least 10 QSOs during a CWT session and jot down call/name/number or S/P/C of the station you worked. Also note the band and approximate time.

### **Day three:**

Short Story headcopy practice SS 307 – 25. Listen to it once and just try to grab as many words as you can in your head. Then do SS 307 – 20. Listen to it once and just try to grab as many words as you can.

QSO headcopy practice QSO 307 – 25.

Who is calling CQ? Who answers the CQ? What is the RST, QTH and Name info for

CQer? What is the RST, QTH and Name info for caller? What are the topics of conversation?

Take as many times at it as you need to get all the info down.

## Session 7:

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### Day one:

Using RufzXP, set starting speed at 18 wpm and do a full cycle until it ends. Type in callsigns as you copy them, and note your result at the end of the session.

Using Morse Runner, set speed at 30 wpm, using “single call” mode (pull down “run” tab and select “single calls”). Set “run for” time at 20 minutes. Note your results at the end of the session.

### Day two:

Short Story headcopy practice SS 308 – 25. Listen to it once and just try to grab as many words as you can in your head. Then do SS 308 – 20. Listen to it once and just try to grab as many words as you can.

QSO headcopy practice QSO 308 – 25.

Who is calling CQ? Who answers the CQ? What is the RST, QTH and Name info for

CQer? What is the RST, QTH and Name info for caller? What are the topics of conversation?

Take as many times at it as you need to get all the info down.

### Day three:

RufzXP: do one whole cycle with starting speed of 20 wpm; then do a cycle with starting speed of 15 wpm. Compare results.

Morse Runner: using single-call mode, do 10 minutes with starting speed of 30 wpm; then do 10 minutes with starting speed of 25 wpm. Compare results.

## Session 8:

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### **Day one:**

CWT practice file CWT Chapter 09. This is a simulation of a typical CWT “running” station. He is sending “CQ CWT” to start then answering calling stations one after another. There will be three different stations he works and he will repeat his exchange (name and number OR state) each time. So, you have three opportunities to capture his call, his name, his number each time you play the file. Take as many times as you need to get all three pieces of info and write them down.

### **Day two:**

CWT – any or all sessions, shoot for 15 QSOs.

### **Day three:**

Short Story headcopy practice SS 309 – 25. Then do SS 309 – 20. Don’t write anything – just listen and absorb.

QSO headcopy practice QSO 309 – 25.

Who is calling CQ? Who answers the CQ? What is the RST, QTH and Name info for

CQer? What is the RST, QTH and Name info for caller? What are the topics of conversation?

Don’t write everything you hear but you can jot down notes

## Session 9:

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### Day one:

RufzXP: do one whole cycle with starting speed of 22 wpm; then do a cycle with starting speed of 18 wpm. Compare results.

Morse Runner: using WPX competition mode, activity level 1, do 10 minutes with starting speed of 30 wpm; then do 10 minutes with starting speed of 25 wpm. Compare results.

### Day two:

Short Story headcopy practice SS 310 – 25. Listen to it once and just try to grab as many words as you can in your head. Then do SS 310 – 20. Listen to it once and just try to grab as many words as you can.

QSO headcopy practice QSO 310 – 25.

Who is calling CQ? Who answers the CQ? What is the RST, QTH and Name info for

CQer? What is the RST, QTH and Name info for caller? What are the topics of conversation?

Take as many times at it as you need to get all the info down.

### Day three:

RufzXP: do one whole cycle with starting speed of 25 wpm; then do a cycle with starting speed of 20 wpm. Compare results.

Morse Runner: WPX competition mode, activity level 2, do 10 minutes with starting speed of 30 wpm; then do 10 minutes with starting speed of 25 wpm. Compare results.

## Session 10:

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### **Day one:**

CWT practice file CWT Chapter 11. This is a simulation of a typical CWT “running” station. He is sending “CQ CWT” to start then answering calling stations one after another. There will be three different stations he works and he will repeat his exchange (name and number OR state) each time. So, you have three opportunities to capture his call, his name, his number each time you play the file. Take as many times as you need to get all three pieces of info and write them down.

### **Day two:**

CWT – any or all sessions – try to make at least 15 QSOs.

### **Day three:**

Short Story headcopy practice SS 311 – 25. Then listen at 20 wpm (SS 311 – 20). As before, just let it wash over you and see if you get the gist of the text.

QSO headcopy practice QSO 311 – 25.

Who is calling CQ? Who answers the CQ? What is the RST, QTH and Name info for

CQer? What is the RST, QTH and Name info for caller? What are the topics of conversation?

## Session 11

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### **Day one:**

Short Story headcopy practice SS 312 – 30. Listen to it once and just try to grab as many words as you can in your head. Then do SS 312 – 25. Listen to it once and just try to grab as many words as you can.

QSO headcopy practice QSO 312 – 25.

Who is calling CQ? Who answers the CQ? What is the RST, QTH and Name info for

CQer? What is the RST, QTH and Name info for caller? What are the topics of conversation?

Take as many times at it as you need to get all the info down.

### **Day two:**

RufzXP: do one whole cycle with starting speed of 20 wpm; then do a cycle with starting speed of 15 wpm. Compare results.

Morse Runner: using single-call mode, activity level 1, do 10 minutes with starting speed of 35 wpm; then do 10 minutes with starting speed of 30 wpm. Compare results.

### **Day three:**

Short Story headcopy practice SS 313 – 30. Listen to it once and just try to grab as many words as you can in your head. Then do SS 313 – 25. Listen to it once and just try to grab as many words as you can.

QSO headcopy practice QSO 313 – 25.

Who is calling CQ? Who answers the CQ? What is the RST, QTH and Name info for

CQer? What is the RST, QTH and Name info for caller? What are the topics of conversation?

Take as many times at it as you need to get all the info down.

## Session 12:

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### **Day one:**

CWT practice file CWT Chapter 13. Take as long as you need to copy running station's callsign and exchange info.

Do a Morse Runner –WPX competition mode , activity level 1, speed 30, for 20 minutes.

### **Day two:**

CWT, any session or sessions (Wed 1300Z, 1900Z, Thu 0300Z or 0700Z).

Try to make at least 15 QSOs during a CWT session and jot down call/name/number or S/P/C of the station you worked. Also note the band and approximate time.

### **Day three:**

Short Story headcopy practice SS 314 – 30. Listen to it once and just try to grab as many words as you can in your head. Then do SS 314 – 25. Listen to it once and just try to grab as many words as you can.

QSO headcopy practice file QSO 314 – 25.

Who is calling CQ? Who answers the CQ? What is the RST, QTH and Name info for

CQer? What is the RST, QTH and Name info for caller? What are the topics of conversation?

Take as many times at it as you need to get all the info down.



## Session 13:

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### **Day one:**

Using RufzXP, set starting speed at 20 wpm and do a full cycle until it ends. Type in callsigns as you copy them, and note your result at the end of the session.

Using Morse Runner, WPX competition mode, activity level 2, set speed at 30 wpm, Set “run for” time at 20 minutes. Note your results at the end of the session.

### **Day two:**

Short Story headcopy practice SS 315 – 30. Listen to it once and just try to grab as many words as you can in your head. Then do it at 25 (SS 315 – 25), listen to it once and just try to grab as many words as you can.

QSO headcopy practice QSO 315 – 30.

Who is calling CQ? Who answers the CQ? What is the RST, QTH and Name info for

CQer? What is the RST, QTH and Name info for caller? What are the topics of conversation?

Take as many times at it as you need to get all the info down.

### **Day three:**

RufzXP: do one whole cycle with starting speed of 25 wpm; then do a cycle with starting speed of 20 wpm. Compare results.

Morse Runner: WPX competition mode – full 60 minutes – starting speed of 30, activity level 2.

## Session 14:

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### **Day one:**

CWT practice file CWT Chapter 14. Take as long as you need to copy running station's callsign and exchange info.

Do a Morse Runner –WPX competition mode , activity level 2 , speed 30, for 20 minutes..

### **Day two:**

CWT, any session or sessions (Wed 1300Z, 1900Z, Thu 0300Z or 0700Z).

Try to make at least 15 QSOs during a CWT session and jot down call/name/number or S/P/C of the station you worked. Also note the band and approximate time.

### **Day three:**

Headcopy Short Story practice SS 316 – 30. Listen to it once and just try to grab as many words as you can in your head. Then do it at 25 (SS 316 – 25). Listen to it once and just try to grab as many words as you can.

QSO headcopy practice QSO 316 – 30.

Who is calling CQ? Who answers the CQ? What is the RST, QTH and Name info for

CQer? What is the RST, QTH and Name info for caller? What are the topics of conversation?

Take as many times at it as you need to get all the info down.

## Session 15:

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### **Day one:**

Morse Runner: using WPX competition mode, activity level 2, speed 30, full 60 minutes.

Note results.

### **Day two:**

Short Story headcopy practice SS 317 – 30. Listen to it once and just try to grab as many words as you can in your head. Then do it at 25 (SS 317 – 25). Listen to it once and just try to grab as many words as you can.

QSO headcopy practice QSO 317 – 30.

Who is calling CQ? Who answers the CQ? What is the RST, QTH and Name info for

CQer? What is the RST, QTH and Name info for caller? What are the topics of conversation?

Take as many times at it as you need to get all the info down.

### **Day three:**

Morse Runner using WPX competition mode, activity level 2, speed 30, full 60 minutes.

Note results.

## Session 16:

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### **Day one:**

CWT practice file CWT Chapter 15. Take as long as you need to copy running station's call sign and exchange info.

Do a Morse Runner –WPX competition mode , activity level 4, speed 35, for 30 minutes..

### **Day two:**

CWT, any session or sessions (Wed 1300Z, 1900Z, Thu 0300Z or 0700Z).

Try to make at least 20 QSOs during a CWT session and jot down call/name/number or S/P/C of the station you worked. Also note the band and approximate time.

### **Day three:**

Short Story headcopy practice SS 318 – 35. Listen to it once and just try to grab as many words as you can in your head. Then do SS 318 – 30. Listen to it once and just try to grab as many words as you can.

QSO headcopy practice QSO 318 – 35.

Who is calling CQ? Who answers the CQ? What is the RST, QTH and Name info for

CQer? What is the RST, QTH and Name info for caller? What are the topics of conversation?

Take as many times at it as you need to get all the info down.

**Appendix A: CW Daily Practice Log**

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Class: \_\_\_\_\_

Student Name: \_\_\_\_\_

DATE	TIME	SESSION	TIME SPENT	NOTES


## Document Revision History and Copyright Notice

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### Revision History:

2016 – Original Version by Rob Brownstein, K6RB

2016 – Revision 1.1 by Rob Brownstein, K6RB (Misc Corrections and Updates)

2017 – Revisions 1.2 by Jerry Weisskohl, AC4BT (Misc Corrections and File References)

2018 – Revision 1.3 by Glenn Norman, W4YES and Alan Dewey, K0AD (Add References for New QSO and Short Story Files plus other minor revisions)

2019 – Revision 1.4 by Bob Carter, WR7Q (Change course name from Level 3 to Advanced)

2020 – Revision 1.5 by Rob Brownstein, K6RB (minor changes to assignment instructions)

2020 - Revision 1.6 by Bob Carter, WR7Q (minor correction to Session 16)

2021 - Revision 1.7 by Bob Carter, WR7Q (minor correction about Zoom and CWT)

2022 - Revision 1.8 by Bob Carter, WR7Q (correction to chapter sequence and some file names)

2024 Jul Rev. 1.15 by Gary Johnson, NA6O; Reformatted for blind accessibility. Added student log.