



**Practice Instructions and Homework  
Assignments for the Beginner CW Academy  
Course**

(Third Edition)

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2023 – Feb – Rev. 3.1 by Bob Carter, WR7Q; moved 'Z' to section 10 from 9

Welcome to CW Academy's Beginner course. Before you take note of the homework assignments below, you should understand how we expect you to practice during the eight-week course, keeping in mind Beginner is mostly on-line, so you don't need a lot of equipment.

Your course is broken up into 16 sessions corresponding to a twice weekly on-line meeting with your advisors. You are expected to practice the assignment for session 1, for example, before the 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.

There are two key tools we use to ensure your success in this course. One is Zoom (Skype, Meet, etc.) which enables us to meet in a virtual training room two times per week, online. We can see and hear each other, and the code being sent.

But the most important tool is Morse Code Trainer (MCT). To set it up, read 'Using Morse Code Trainer.'

Morse Code Trainer is pre-loaded with your homework assignment segments. You will play them, over and over, until you feel comfortable that you recognize each letter and number sound pattern. Note, I did not say each letter and number dots and dashes or dits and dahs – I said sound pattern. That's the secret to learning Morse code in a way that will scale up in speed as you progress.

Initially setup MCT to 25cpm (Character speed) with at least 4wpm (Farnsworth speed)

The screenshot shows the Morse Code Trainer (MCT) interface. At the top, there is a navigation bar with the title "International Morse Training" and several links: "CW Generator", "CWops (EN)", "CWops (JP)", "QSO", "Word List", and "ICR". Below this is a form for user information with fields for "Your call sign:", "Your town/city and state abbreviation:", "Your name:", "Your age:", "Your power:", and "Your antenna:". Each field has a placeholder text indicating the session number (e.g., "For session 11 onwards").

The main interface is divided into several sections:

- Session:** A section with the text "Choose your session and then practise the copying and sending segments." It features a progress indicator "1/13" and buttons for "Previous", "Session", and "Next".
- Feedback:** A section with the text "For Copying and Random activities, choose whether you want to hide the text, or see a flashcard displayed afterwards." It includes "Show text" and "Flashcard" buttons, and a "Thinking time" input field set to "75 %".
- Morse Sound Controls:** A section with various sliders and checkboxes:
  - Frequency: 550
  - Volume: 100
  - Advanced timing:
  - Character speed: 25 (circled in red)
  - Farnsworth speed: 4 (circled in red)
  - Segment gap: #Dits: 21, Length: [empty]
- Activity Section:** A section with tabs for "Copying", "Sending", "Free-form", and "Random". Below the tabs is the text "Play each of these segments again and again until you feel you recognise the sound pattern. Click on word tiles to hear them separately." Below this text is a play area with a sequence of "t" characters in boxes. At the bottom of this section is a control bar with buttons for "Play", "Pause", "Stop", "Previous", "Next", "Repeat", "Shuffle", and "Download".

So, for example, your first homework assignment is to play the following segments, one at a time, until you feel you can recognize them:

Segment 1: t t t t t

Segment 2: e e e e e

Segment 3: a a a a a

Segment 4: n n n n n

Segment 5: tea

Segment 6: tee

Segment 7: eat

Segment 8: ate

Segment 9: at

Segment 10: tat

Segment 11: teen

Segment 12: neat

Segment 13: ten

Segment 14: net

Segment 15: tan

To enter a segment into Morse Code Trainer, simply select the session/segment from the menu, then hit 'play.' You can repeat a segment by hitting 'play' over and over again. When you're done, select the next segment in place of the previous segment, and continue.

This constitutes your 'copying' practice. The key is to learn to recognize a letter or number's pattern, and then recognize words that use those letters. You will start out by adjusting the 'Character speed' of Morse Code Trainer so that letters and words are sent at 25 wpm, then you adjust the Farnsworth speed to meet the daily class assignments.

Each homework assignment also has segments for 'sending' practice. For example, session 1 has the following sending segments:

Segment 1: tea

Segment 2: ten

Segment 3: net

Segment 4: tee

What you will do is select a segment, and then play it. Then you will try to imitate it, exactly, using your key or keyer. Repeat it as many times as it takes to feel like you've gotten the correct word pattern. For example, 'tea' will sound like 'dah' space 'dit' space 'didah.' If you don't have enough space, say, between the 't' and 'e', it will sound like 'dahdit' 'didah.' That is 'na' and not 'tea.' Timing is everything in sending.

So, before you meet for session 1, you should be able to recognize the patterns of the letter's 't', 'e', 'a' and 'n.' And you should be able to recognize the patterns of the words 'tea,' 'ten,' 'net,' and 'tee.' And you will be able to do that at 25 cpm.

During your first session, your advisor will be sending those words to you, individually, and seeing if you have learned them. Then, he/she will ask you, individually, to send words to assess how well you've learned good element (dit or dah) timing and spacing.

You probably realize, now, that most of your time and effort will be spent using Morse Code Trainer BEFORE each session, and the session is primarily used for assessment and constructive suggestions.

You will find that you should be spending at least 60 minutes every day, including session days, broken up into 15-minute periods. But take as long as you need to feel comfortable that you've 'gotten' the copying and sending segments down before each session.

You should be able to send and receive at least 6 wpm by completion of the Beginner class.

Okay, now that you know what's expected of you, here are the homework assignments organized by session and segment.

## Homework Assignments

### Session 1: (start at least 4wpm)

#### Copying segments:

Segment: t t t t t

Segment: e e e e e

Segment: a a a a a

Segment: n n n n n

Segment: tea

Segment: tee

Segment: eat

Segment: ate

Segment: at

Segment: tat

Segment: teen

Segment: neat

Segment: ten

Segment: net

Segment: tan

Segment: eat at ten

Segment: ate at ten

Segment: at tee

#### Sending segments:

Segment: tea

Segment: ten

Segment: net

Segment: tee

Segment: eat at ten

Segment: at tee

## Session 2

### Copying segments:

Segment: t t t t t

Segment: e e e e e

Segment: a a a a a

Segment: n n n n n

Segment: o o o o o

Segment: i i i i i

Segment: s s s s s

Segment: 1 1 1 1 1

Segment: 4 4 4 4 4

Segment: ten

Segment: ton

Segment: tin

Segment: tie

Segment: toe

Segment: no

Segment: not

Segment: note

Segment: it

Segment: at

Segment: one

Segment: neat

Segment: net

Segment: nit

Segment: toes

Segment: stone

Segment: tease

Segment: noise

Segment: one neat note

Segment: no noise

Segment: tie it

Segment: 1 ton stone

Segment: N1AS

Segment: N4ON

Segment: S41T

Segment: NO1S

Segment: AI1E

Segment: IT4O

Segment: EA1ON

Segment: ES4IT

### **Sending Segments:**

Segment: stone  
Segment: tin  
Segment: tie  
Segment: no  
Segment: not  
Segment: it  
Segment: at  
Segment: N1AS  
Segment: N4ON  
Segment: S41T  
Segment: NO1S  
Segment: AI1E  
Segment: IT4O  
Segment: EA1ON  
Segment: ES4IT  
Segment: 1 ton stone  
Segment: 14 notes  
Segment: ten toes

### **Session 3**

#### **Copying Segments:**

Segment: o o o o o  
Segment: i i i i  
Segment: s s s s s  
Segment: r r r r r  
Segment: h h h h h  
Segment: d d d d d  
Segment: l l l l l (the letter 'l')  
Segment: 2 2 2 2 2  
Segment: 5 5 5 5 5  
Segment: all  
Segment: tell  
Segment: tall  
Segment: deal  
Segment: the  
Segment: their  
Segment: doll  
Segment: dell  
Segment: hall  
Segment: hill  
Segment: hole  
Segment: load  
Segment: lead



Segment: late  
Segment: later  
Segment: seal  
Segment: sell  
Segment: sole  
Segment: she  
Segment: shed  
Segment: her  
Segment: hear  
Segment: DL1AT  
Segment: HH5H  
Segment: HS1TD  
Segment: ND2T  
Segment: NA4T  
Segment: 142  
Segment: 451  
Segment: 1425  
Segment: a tall hill  
Segment: she is here  
Segment: he is late  
Segment: 4 sheds  
Segment: 12 hills

**Sending Segments:**

Segment: all  
Segment: tell  
Segment: the  
Segment: lead  
Segment: late  
Segment: she  
Segment: her  
Segment: DL1AT  
Segment: HH5H  
Segment: HS1TD  
Segment: ND2T  
Segment: NA4T  
Segment: 142  
Segment: 451  
Segment: 1425  
Segment: she is here  
Segment: he is late

## Session 4

### Copying Segments:

Segment: r r r r r

Segment: h h h h h

Segment: d d d d d

Segment: l l l l l (the letter 'l')

Segment: 1 1 1 1 1 (the number '1')

Segment: 4 4 4 4 4

Segment: u u u u u

Segment: c c c c c

Segment: chat

Segment: chair

Segment: chin

Segment: chart

Segment: ouch

Segment: couch

Segment: touch

Segment: such

Segment: teach

Segment: reach

Segment: sun

Segment: son

Segment: hold

Segment: told

Segment: sail

Segment: rail

Segment: tail

Segment: nail

Segment: oil

Segment: soil

Segment: toil

Segment: coil

Segment: rain

Segment: cause

Segment: sauce

Segment: toss

Segment: toll

Segment: tall

Segment: tell

Segment: cell

Segment: call

Segment: NC5A  
Segment: NA2T  
Segment: CU1LL  
Segment: CO5NO  
Segment: NU4R  
Segment: CT1AC  
Segment: CE1NI  
Segment: 4241  
Segment: 1452  
Segment: in the cell  
Segment: that hurts  
Segment: at the hall  
Segment: hole in 1

**Sending Segments:**

Segment: chat  
Segment: chin  
Segment: teach  
Segment: sail  
Segment: rain  
Segment: tall  
Segment: tell  
Segment: NC5A  
Segment: NA2T  
Segment: CU1LL  
Segment: CO5NO  
Segment: NU4R  
Segment: CT1AC  
Segment: CE1NI  
Segment: 4241  
Segment: 1452  
Segment: sail on sailor  
Segment: tell all  
Segment: hold on

## Session 5

### Copying Segments:

Segment: u u u u u

Segment: c c c c c

Segment: 2 2 2 2 2

Segment: 5 5 5 5 5

Segment: m m m m m

Segment: w w w w w

Segment: 3 3 3 3 3

Segment: 6 6 6 6 6

Segment: ? ? ? ? ?

Segment: wait

Segment: wall

Segment: well

Segment: will

Segment: mall

Segment: mill

Segment: chum

Segment: mow

Segment: much

Segment: such

Segment: water

Segment: wet

Segment: what

Segment: dew

Segment: date

Segment: atom

Segment: tow

Segment: tower

Segment: were

Segment: where

Segment: was

Segment: wish

Segment: wash

Segment: mat

Segment: matt

Segment: mel

Segment: him

Segment: her

Segment: his

Segment: hw?

Segment: W3AA  
Segment: N3AM  
Segment: DM5RA  
Segment: W6AM  
Segment: N2AT  
Segment: RW5L  
Segment: ON4UN  
Segment: 335  
Segment: 1432  
Segment: 6122  
Segment: well water  
Segment: how is it?  
Segment: is this it?  
Segment: this is it

**Sending Segments:**

Segment: wait  
Segment: well  
Segment: mall  
Segment: mill  
Segment: wet  
Segment: date  
Segment: W3AA  
Segment: N3AM  
Segment: DM5RA  
Segment: W6AM  
Segment: N2AT  
Segment: RW5L  
Segment: ON4UN  
Segment: 335  
Segment: 1432  
Segment: 6122  
Segment: this is it  
Segment: 1432 hill street  
Segment: 1 and 4 is 5

## Session 6

### Copying Segments:

Segment: m m m m m

Segment: w w w w w

Segment: 3 3 3 3 3

Segment: 6 6 6 6 6

Segment: f f f f f

Segment: y y y y y

Segment: you

Segment: toy

Segment: foot

Segment: tooth

Segment: root

Segment: cute

Segment: noise

Segment: larry

Segment: roy

Segment: ton

Segment: teeth

Segment: feet

Segment: yet

Segment: they

Segment: say

Segment: ray

Segment: hay

Segment: your

Segment: fair

Segment: fare

Segment: far

Segment: fur

Segment: furry

Segment: hw?

Segment: F5IN

Segment: YO1AR

Segment: HH5H

Segment: NO3M

Segment: AA3U

Segment: S52R

Segment: 1512

Segment: 3316

Segment: is this fair?  
Segment: yes it is  
Segment: the fur flies  
Segment: she is shy  
Segment: I say no  
Segment: she says yes

### **Sending Seqments**

Segment: cute  
Segment: said  
Segment: raid  
Segment: stir  
Segment: him  
Segment: feet  
Segment: hw?

Segment: F5IN  
Segment: YO1AR  
Segment: HH5H  
Segment: NO3M  
Segment: AA3 U  
Segment: S52R  
Segment: 1512  
Segment: 3316  
Segment: she says yes  
Segment: he says no  
Segment: who is he?  
Segment: he is will  
Segment: no he is walt

## Session 7

### Copying Segments:

Segment: f f f f f

Segment: y y y y y

Segment: 3 3 3 3 3

Segment: 6 6 6 6 6

Segment: p p p p p

Segment: g g g g g

Segment: 7 7 7 7 7

Segment: 9 9 9 9 9

Segment: / / / / /

Segment: page

Segment: paper

Segment: pepper

Segment: glad

Segment: glare

Segment: large

Segment: ledge

Segment: george

Segment: geo

Segment: chas

Segment: chase

Segment: change

Segment: peg

Segment: pug

Segment: pig

Segment: pen

Segment: pencil

Segment: pipe

Segment: pit

Segment: gain

Segment: garage

Segment: guard

Segment: gas

Segment: gus

Segment: chug

Segment: yes

Segment: yet

Segment: yonder

Segment: coy

Segment: G4AN/3

Segment: N1AR/5

Segment: W9UCA/9

Segment: W3/PY2AA

Segment: F6/N6AM

Segment: 2N2222



Segment: 7423  
Segment: 14253679  
Segment: he is a pro  
Segment: she is near  
Segment: do not gape  
Segment: he is at 19 glen street

**Sending Segments:**

Segment: page  
Segment: glare  
Segment: ledge  
Segment: george  
Segment: pen  
Segment: pit  
Segment: G4AN/3  
Segment: N1AR/5  
Segment: W9UCA/9  
Segment: W3/PY2AA  
Segment: F6/N6AM  
Segment: 2N2222  
Segment: 7423  
Segment: 14253679  
Segment: go to her  
Segment: read the page  
Segment: wat page?  
Segment: page 15

## Session 8 (at least 5wpm)

### Copying Segments:

Segment: b b b b b

Segment: v v v v v

Segment: 7 7 7 7 7

Segment: 9 9 9 9 9

Segment: / / / / /

Segment: vote

Segment: vat

Segment: view

Segment: wave

Segment: pave

Segment: save

Segment: vow

Segment: valve

Segment: solve

Segment: volt

Segment: vault

Segment: bad

Segment: body

Segment: bore

Segment: born

Segment: barn

Segment: barney

Segment: brad

Segment: bread

Segment: bed

Segment: better

Segment: best

Segment: bill

Segment: build

Segment: built

Segment: bolt

Segment: bulb

Segment: blame

Segment: blend

Segment: bland  
Segment: blow  
Segment: BV2AA  
Segment: BA1RO  
Segment: WB2AE  
Segment: N6RB/4  
Segment: W2/VE1AR  
Segment: VE2/W2LE  
Segment: 6146  
Segment: 5514  
Segment: name is bob  
Segment: name is bill  
Segment: name is ted  
Segment: name is Vinnie  
Segment: ur rst is 559  
Segment: ur rst is 459

**Sending Segments:**

Segment: vote  
Segment: valve  
Segment: bed  
Segment: best  
Segment: BV2AA  
Segment: BA1RO  
Segment: WB2AE  
Segment: N6RB/4  
Segment: W2/VE1AR  
Segment: VE2/W2LE  
Segment: 6146  
Segment: 5514  
Segment: name is bill  
Segment: name is art  
Segment: ur rst is 579  
Segment: ur rst is 449

## Session 9

### Copying Segments:

Segment: b b b b b

Segment: v v v v v

Segment: k k k k k

Segment: j j j j j

Segment: 8 8 8 8 8

Segment: 0 0 0 0 0

Segment: <BT><BT><BT><BT><BT> (make sure you've selected 'pro signs' on Morse Translator)

Segment: jack

Segment: jay

Segment: john

Segment: jim

Segment: jerry

Segment: back

Segment: rack

Segment: tack

Segment: tech

Segment: tach

Segment: reach

Segment: each

Segment: teach

Segment: help

Segment: high

Segment: hill

Segment: fact

Segment: face

Segment: far

Segment: fear

Segment: then

Segment: their

Segment: him

Segment: her

Segment: his

Segment: hers

Segment: them

Segment: they

Segment: their

Segment: switch

Segment: line

Segment: ant

Segment: dipole

Segment: vertical

Segment: ohms  
Segment: home  
Segment: away  
Segment: test  
Segment: Asia  
Segment: Africa  
Segment: K1JD  
Segment: N1AR  
Segment: W2TT  
Segment: K2UMU  
Segment: N2NW  
Segment: VE3NE  
Segment: VA3KP  
Segment: K4BAI  
Segment: N5KO  
Segment: 807  
Segment: 3500  
Segment: 4250A  
Segment: hw is he?  
Segment: name is joe  
Segment: name is john  
Segment: name is jim  
Segment: ur rst is 579  
Segment: ur rst is 339  
Segment: sri no cpy

**Sending Segments:**

Segment: jack  
Segment: tach  
Segment: reach  
Segment: each  
Segment: fear  
Segment: his  
Segment: ant  
Segment: K1JD  
Segment: N1AR  
Segment: W2TT  
Segment: K2UMU  
Segment: N2NW  
Segment: VE3NE  
Segment: VA3KP  
Segment: K4BAI  
Segment: N5KO  
Segment: 807

Segment: 3500  
Segment: 4250A  
Segment: name is fred  
Segment: name is tom  
Segment: name is john  
Segment: name is bob  
Segment: ur rst is 549

## **Session 10 (at least 6wpm)**

### **Copying Segments:**

Segment: k k k k k  
Segment: j j j j j  
Segment: 8 8 8 8 8  
Segment: 0 0 0 0 0  
Segment: x x x x x  
Segment: q q q q q  
Segment: z z z z z  
Segment: <BK><BK><BK><BK><BK>  
Segment: wl  
Segment: ur  
Segment: ok  
Segment: hw?  
Segment: qrx  
Segment: rig  
Segment: wx  
Segment: ant  
Segment: pwr  
Segment: kw  
Segment: name  
Segment: Memphis  
Segment: nyc  
Segment: sf  
Segment: dallas  
Segment: Houston  
Segment: nm  
Segment: nj  
Segment: ca  
Segment: ut  
Segment: al  
Segment: ar  
Segment: il  
Segment: in  
Segment: me  
Segment: ma

Segment: ct  
Segment: co  
Segment: qrm  
Segment: ne  
Segment: sd  
Segment: nd  
Segment: pa  
Segment: ky  
Segment: fl  
Segment: nc  
Segment: sc  
Segment: sdgo  
Segment: lax  
Segment: la  
Segment: on  
Segment: sk  
Segment: mb  
Segment: nt  
Segment: ab  
Segment: qc  
Segment: nb  
Segment: ns  
Segment: nr  
Segment: rst  
Segment: uk  
Segment: usa  
Segment: Tokyo  
Segment: paris  
Segment: London  
Segment: hamburg  
Segment: Sydney  
Segment: ZL2TF  
Segment: VK4OM  
Segment: JE1TRV  
Segment: BA1CW  
Segment: KH6LC  
Segment: AL2A  
Segment: AA3B  
Segment: 8044  
Segment: 7400  
Segment: 73  
Segment: u hv qsb  
Segment: u hv qrm  
Segment: name?

Segment: qth?  
Segment: qth is ny  
Segment: qth is paris  
Segment: pse qsy to 7054

**Sending Segments:**

Segment: wl  
Segment: ur  
Segment: ok  
Segment: qrx  
Segment: rig  
Segment: wx  
Segment: ant  
Segment: pwr  
Segment: kw  
Segment: qrz  
Segment: qth  
Segment: qrs  
Segment: qro  
Segment: qrp  
Segment: ZL2TT  
Segment: VK4OM  
Segment: JE1TRV  
Segment: BA1CW  
Segment: KH6LC  
Segment: AL2A  
Segment: AA3B  
Segment: 8044  
Segment: 7400  
Segment: 73  
Segment: ur rst is 579  
Segment: qth is nr Tulsa  
Segment: name is barry  
Segment: ur rst is 559  
Segment: qth is Dayton oh  
Segment: name is john



## Session 11 (at least 6wpm)

### Copying Segment:

Segment: [your callsign] de k6rbur rst 579 nr sf name rob hw? [your callsign] de k6rb k

Segment: [your callsign] de n3jt ur rst is 5nn <BT> qth mclean va ? mclean va <BT> op is jim de n3jt

Segment: [your callsign] de w1rm <BT>ur rst 569 569 in ct name is pete bk

### Sending Segment:

Segment: k6rb de [your callsign] – ur rst 57n in [your town/city and state abbreviation] - name is [your name] btu k6rb de [your callsign] k

Segment: n3jt de [your callsign] – ur rst 56n in [your town/city and state abbreviation] – name is [your name] – n3jt de [your callsign] k

Segment: w1rm de [your callsign] – ur rst 45n wid QRN in [your town/city and state abbreviation] – name is [your name] – w1rm de [your callsign] k

## Session 12

### Copying Segments:

Segment: [your callsign] de k6rb wx cldy temp 58 <BT>rig runs 100 w to vert <BT>age is 66 so hw?[your callsign] de k6rb k

Segment: [your callsign] de n3jt <BT>wx rain temp 42<BT>rig is k3 es ant is 4 el yagi -age is 65 ok? de n3jt

Segment: [your callsign] de w1rm wx snow temp 24rig is IC 7700 pwr is kw es ant is dipole age is 70 hw? BK

### **Sending Segments:**

Segment: k6rb de [your callsign] – wx sunny temp 82 –rig runs [your power] w to [your antenna] – age is [your age] hw? k6rb de [your callsign] k

Segment: n3jt de [your callsign] – wx rain temp 54 –rig runs [your power] w to [your antenna] – age is [your age] hw? n3jt de [your callsign] k

Segment: w1rm de [your callsign] – wx oc temp 70 –rig runs [your power] w to [your antenna] – age is [your age] hw? w1rm de [your callsign] k

### **Session 13** (at least 6 wpm)

#### **Copying Segments:**

Segment: [your callsign] de k6rb tnx fer qso es hpe cu agn 73 <SK> [your callsign] de k6rb ee

Segment: [your callsign] de n3jt nice qso tnx cul 73 <SK> [your callsign] de n3jt gn

Segment: [your callsign] de w1rm – enjoyed qso <SK> [your callsign] de w1rm ee

#### **Sending Segments:**

Segment: k6rb de [your callsign] tu fer qso cu agn 73 <SK> k6rb de [your callsign]

Segment: n3jt de [your callsign] cul es nice qso 73 <SK> k6rb de [your callsign] ee

Segment: w1rm de [your callsign] enjoyed qso also 73 <SK> w1rm de [your callsign] cu ee

### **Session 14**

Before online sessions, listen to HF radio on CW sub-bands. Listen for slower stations calling CQ and copy their callsigns. Listen to slower stations in QSO and see if you can copy what they are saying. Practice sending first, second and wrap exchanges.

Practice sending your callsign, ur qth, and ur name – over and over again!!!

### **Session 15 and 16**

Congratulations, you are well on your way to a great future with Morse code!!