

# LCWO ICR Guidelines

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The ‘number one’ problem most people have with decoding Morse Code, they do not have Instant Character Recognition (*ICR*). Miss a single letter, you miss the word or a whole group of words.

The following exercises at will help you on your way to getting a lot better at ICR, if...you consistently practice and complete all the processes.

## LCWO Getting Started

Webpage: [LCWO.net](http://LCWO.net)

You must register, then sign in each time

### Change CW Setting

- Character Speed – at least 25 to 30 wpm to minimize ‘counting’ dits and dahs
- Effective Speed (Farnsworth) – as requested in the curriculum or by the advisor. Hereafter referred to a ‘speed’
- Extra Word Spacing – time before you have to hit the ‘enter key’
- Tone (Hz) – frequency of the code you hear
- CW player – ‘jswlib’ is the recommended setting
- Start delay – number of seconds before the file starts playing
- Group Length – number of elements being sent
- Letters, figures, Koch Characters and Extras – only need to be selected for Code Groups if you choose Custom characters

Submit – for any changes to take effect

## Basic Level

Character speed – 25+ wpm

Speed – as requested in the curriculum or by the advisor

Extra word spacing – 1 (temporarily increasing may help with ‘copy behind’)

Tone – 500 (*or your preference*)

Start delay (sec) – 2

Submit

*Go to Code Groups*

Duration (*min*) – 1

‘Uncheck’ – Use REAL speed (not PARIS)

After completion, select ‘Check Results’

‘Continue Training’ – five or more times

## Letters

Start with an effective speed of 4 wpm, 2 characters. Always keep the speed at least the same as the class curriculum.

Practice until you start averaging around 10 % errors or less...next move speed up to 6 wpm, then...8 wpm. Do the same thing until you get to at least 10 wpm. Then, start speed over at the ‘class speed’ and increase to 3 characters.

## Figures (*numbers*)

Start with an effective speed of 4 wpm, 1 character. Always keep the speed at least the same as the class curriculum.

Practice until you start averaging around 10 % errors or less...next move speed up to 6 wpm, then...8 wpm. Do the same thing until you get to 10 wpm. Then, start speed over at the ‘class speed’ and increase to 2 characters.

## **Custom Characters (*Koch Characters*)**

Start with an effective speed of 4 wpm, 1 character. Always keep the speed at least the same as the class curriculum.

Practice until you start averaging around 10 % errors or less...next move speed up to 6 wpm, then...8 wpm. Do the same thing until you get to a least 10 wpm. Then, start speed over at the 'class speed' and increase to 2 characters.

## **Beyond the Curriculum**

### **Get Better Yet**

Keep increasing the speed, number of characters and decreasing word spacing.

### **Mixed**

Start with an effective speed of 10 wpm, 3 characters.

Practice until you start averaging around 10 % errors or less...next move speed up to 12 wpm. Do the same thing until you get to 15 wpm. Next, start over at 10 wpm and increase to 4 characters, following the same process. Now do the same process again with 5 characters.

### **Copy Behind**

Instead of hitting the 'enter key' immediately after you hear the character, wait until you have heard them all...then enter. This will train your brain to get better at 'hearing words'.

### **Callsign Training**

Start with an effective speed of 4 wpm and increase till you get to 10 wpm  
i.e. 4, 6, 8, etc.

## Intermediate Level

Character speed (*wpm*) – 25+

Speed – as requested in the curriculum or by the advisor

Extra word spacing – 3 (temporarily increasing may help with ‘copy behind’)

Tone – 500 (*or your preference*)

Start delay (*sec*) – 2

Submit

*Go to Code Groups*

Duration (*min*) – 1

Uncheck – Use REAL speed (not PARIS)

After completion, select ‘Check Results’

‘Continue Training’ – five or more times

### Letters

Start with an effective speed of 10 wpm, 3 characters. Always keep the speed at least the same as the class curriculum.

Practice until you start averaging around 10 % errors or less...next move speed up to 13 wpm, then...15 wpm. Do the same thing until you get to 20 wpm.

Then, start speed over at the ‘class speed’ and increase to 4 characters, following the same process. Now do the same process again with 5 characters.

### Figures (*numbers*)

Start with an effective speed of 10 wpm, 3 characters. Always keep the speed at least the same as the class curriculum.

Practice until you start averaging around 10 % errors or less...next move speed up to 13 wpm, then...15 wpm. Do the same thing until you get to 20 wpm.

Then, start speed over at the ‘class speed’ and increase to 4 characters.

## **Custom Characters (*Koch Characters*)**

Start with an effective speed of 10 wpm, 2 characters. Always keep the speed at least the same as the class curriculum.

Practice until you start averaging around 10 % errors or less...next move speed up to 13 wpm, then...15 wpm. Do the same thing until you get to 20 wpm. Then, start speed over at the 'class speed' and increase to 3 characters.

## **Beyond the Curriculum**

### **Get Better Yet**

Keep increasing the speed, number of characters and decreasing word spacing.

### **Mixed**

Start with an effective speed of 15 wpm, 3 characters.

Practice until you start averaging around 10 % errors or less...next move speed up to 18 wpm. Do the same thing until you get to 20 wpm. Next, start over at 15 wpm and increase to 4 characters, following the same process. Now do the same process again with 5 characters.

### **Copy Behind**

Instead of hitting the 'enter key' immediately after you hear the character, wait until you have heard them all...then enter. This will train your brain to get better to 'hearing words'.

### **Callsign Training**

Start with an effective speed of 15 wpm and increase till you get to 25 wpm.  
i.e. 15, 18, 20, etc.

## Advanced Level

Character speed (*wpm*) – 25+ (you may want to increase to match your speed)

Speed – as requested in the curriculum or by the advisor

Extra word spacing – 3 (temporarily increasing may help with ‘copy behind’)

Tone – 500 (*or your preference*)

Start delay (*sec*) – 2

Submit

### *Go to Code Groups*

Duration (*min*) – 1

Uncheck – Use REAL speed (not PARIS)

After completion, select ‘Check Results’

‘Continue Training’ – five or more times

## Letters

Start with an effective speed of 20 wpm, 3 characters. Always keep the speed at least the same as the class curriculum.

Practice until you start averaging around 10 % errors or less...next move speed up to 23 wpm, then...25 wpm, then...28 wpm. Do the same thing until you get to 30 wpm. Then, start speed over at the ‘class speed’ and increase to 4 characters, following the same process. Now do the same process again with 5 characters.

## Figures (*numbers*)

Start with an effective speed of 20 wpm, 3 characters. Always keep the speed at least the same as the class curriculum.

Practice until you start averaging around 10 % errors or less...next move speed up to 23 wpm, then...25 wpm, then...28 wpm. Do the same thing until you get to 30 wpm. Then, start speed over at the ‘class speed’ and increase to 4 characters.

## **Custom Characters (*Koch Characters*)**

Start with an effective speed of 20 wpm, 2 characters. Always keep the speed at least the same as the class curriculum.

Practice until you start averaging around 10 % errors or less...next move speed up to 23 wpm, then...25 wpm, then...28 wpm. Do the same thing until you get to 30 wpm. Then, start speed over at the 'class speed' and increase to 3 characters.

## **Beyond the Curriculum**

### **Get Better Yet**

Keep increasing the speed, number of characters and decreasing word spacing.

### **Mixed**

Start with an effective speed of 20 wpm, 3 characters.

Practice until you start averaging around 10 % errors or less...next move speed up to 23 wpm, then...25 wpm. Do the same thing until you get to 35 wpm. Then, start speed over at 20 wpm and increase to 4 characters, following the same process. Now do the same process again with 5 characters.

### **Copy Behind**

Instead of hitting the 'enter key' immediately after you hear the character, wait until you have heard them all...then enter. This will train your brain to get better to 'hearing words'.

### **Callsign Training**

Start with an effective speed of 20 wpm and increase till you get to 35 wpm. i.e. 20, 23, 25, 28, etc.