

## Instant Recognition

by Nancy Kott, WZ8C

Some Hams are content to rag chew at slow speeds and don't have a desire to go faster. This is fine! As long as you are getting on the air and having fun with Morse code, that is what is important. However, many frustrated Hams want to go faster. "How can I increase my code speed?" is the most commonly asked question. After learning the alphabet, Hams seemingly reach a "plateau", a period where they can't make further progress. Usually they can copy 5 or 6 WPM fairly well, but they go to pieces above 7 or 8 WPM. The answer is simple: they have not adequately learned the alphabet.

They may deny this is true since they obviously must know the characters to copy 6 or 7 WPM.

However, to copy CW at higher speeds requires more than merely recognizing characters: the recognizing must be instantaneous. By instantaneous recognition I mean the ability to recognize a CW character within a half-second after hearing its completion.

Bill Pierpont, N6HFF, author of "The Art and Skill of Telegraphy," puts it this way: "Associate the code signal with the printed letter so intimately that when you hear or think of one, the other immediately pops into mind. Instant recognition is what we strive for. We must develop that patient, receptive state of mind that allows us to recognize each character instantly

and accurately as soon as it has been completed."

How do you find out if you have instant recognition? One way is to play a code practice program. As each letter plays, can you immediately say or write the letter? Or do you think "ummm...A" or "...dit dah...ummm...A"? If there is a split second delay in your recognition of the letter, then you haven't learned that letter to the point of instant recognition. A split second may not seem like much; it's not going to make much difference when you're going 5 or 10 WPM but when you get to higher speeds it's going to mess you up. The time it takes you to think "...ummm" before recognizing the letter will be long enough to make you miss the next letter after it. It will snowball to the point where you lose whole words. You may get enough of it to make sense of the copy, but you will not feel comfortable chatting on the air. It might discourage you enough to make you want to give up because you feel you are practicing and practicing and aren't making progress.

I'm sure you've heard the stories of legendary CW operators who can carry on a high speed chat on the air while drinking a cup of coffee and fielding questions from people in the room. These operators are comfortable with the code because it's so familiar they don't have to think about what they're copying.

Irene, WO8E, feels she is at a plateau. Even though she has passed the 20 WPM test and has

her Extra class license she doesn't feel comfortable carrying on a conversation at 20 WPM. We wondered if she had instant recognition, maybe she didn't and this was holding her back. She listened to the code characters one by one and sure enough there are a handful of characters that she has to think about before identifying them! Once you find you don't have instant recognition, how do you acquire it? There are two ways: the hard way and the easy way. The hard way is to proceed as you are doing, eventually instant recognition will come to you. With some people it may take years.

The simple way is to go back to the alphabet and learn it as it should have been done in the first place. Your first reaction is probably to think it would be a waste of time because you may feel you've already memorized the alphabet. But, you've proved that you don't really know the letters because you don't have instant recognition of them yet. Once properly learned, the alphabet will produce faster speeds quickly and easily. The key is to overlearn the alphabet so it becomes so ingrained in your brain that it's second nature. In psychology there is a "Law of Contiguity", which says that if two events occur no more than one-half second apart, the mind associates the two events. This means when a Morse code character is heard and it is followed within one-half second by a spoken letter of the alphabet, the mind will associate the Morse sound with the translation. The association works automatically, as a workman thinks "lunch" when

he hears the noon whistle blow. But we quickly forget things learned by this association method, so we need to "overlearn" them to make the code a part of our permanent memory. Overlearning occurs when we continue to practice something we feel we have already learned. However, boredom soon sets in when we go over and over material we think we've already mastered. This is why practice sessions should be short, two or three minutes at a time. Short, frequent practice sessions produce more results than fewer longer sessions. Concentrate, stay focused on your goal!

Determine what characters you don't recognize immediately after they are played and concentrate on these. You should be able to say the name of the character as the last dit or dah is heard. If you don't, add it to your list. You can relearn the alphabet by using basic code tapes, listening to slow code on the air or even whistling it to yourself. It would be ideal if you could make your own tape concentrating on your problem letters, but don't omit the letters you already know. Remember, our goal is to overlearn the code: all the reinforcement you can get is good for you.

The key to success with this method is to say the letter within a half second of hearing it; hearing it and quickly saying it over and over and over. The INSTANT you recognize the letter being played, say it out loud as fast as you can. Use spare moments during the day to whistle the code under your breath and quietly say the letter

to yourself immediately afterwards. Do it while driving, sitting at your desk at work (no one will even suspect!), during commercials while watching TV, anytime you think of it. Spending just a few minutes many times a day will work wonders. By tapping out the letter with your finger as you say the letter aloud or whistle it, you involve more of your brain's memory centers. This increases your learning efficiency by reinforcing instant recognition with what is called "motor memory". Doing a practice session right before you go to sleep has also been proven to help your brain commit material to memory.

When you find that you have instant recognition with the letters, your code speed will increase effortlessly. Then you will get to the point where you can work on having instant recognition with common words. As always, I welcome your comments. Contact me at Nancy Kott, WZ8C, PO Box 47, Hadley MI 48440 or via Email at [nancy@tir.com](mailto:nancy@tir.com)

## **Go With the Flow**

By Nancy Kott WZ8C

Morse code. These two words conjure up more emotions than any other phrase in Amateur Radio. For some reason, Hams who enjoy Morse code are fiercely protective of it. When the no-code rumblings began, people started taking sides. It even brought mild-mannered hermits out of their shacks and motivated them to write letters to the FCC and the ARRL. The threat that the bandspace dedicated to code might be taken away brought them together in a way that has never been seen before.

Why would they care? No one is going to make code illegal; no one is going to make them stop using code. So what does it matter? What is it about code?

You may assume they feel that they had to suffer through the code test, so everyone should. Or they feel it is a filter to keep out the riff-raff. Sure, there may be some of that - on the surface - but to bring out feelings this explosive, it has to go deeper.

I started thinking about my own experience. When I moved to Metamora in 1985, my mother would telephone every day, worried about me living in the boondocks. My father, more worried about the rising phone bill than the possibility of me being eaten up by a grizzly bear, suggested that we get our tickets so we could use 2 meters instead of the telephone. My mother said, "I

will if you will." And I said, "OK." I had taken electronics in college and worked as an electronic technician at Chevy Engineering seven years, so I didn't have a problem with the theory. But, Morse code? Forget it.

"WHY do I have to learn that stupid code," I whined. "All I want to do it get on two meters. It's not fair." I can't tell you how deeply I resented being forced to do something because of an antiquated requirement. If there had been a no-code Tech license at that time, I would have snatched it up in an instant and not thought twice.

My mother got her Novice license in about six months. It took me over two years to get to 5 wpm. I lost count of how many times I quit and started up again. I fought it every step of the way. When I finally got the 5 wpm in June of 1988 I was relieved. Now I could forget about it.

My mother and I chatted happily on 2 meters for most of that summer, until one day we were talking about what I was going to do that night. We were using the repeater instead of simplex and I had a tendency to forget that people read the mail, especially on repeaters. So, I told her I had stopped at the video rental for some tearjerkers, picked up a pizza, bought a new nightgown and planned on spending the evening taking a bubble bath and relaxing. After my transmission, a male voice came on and said "uh, what is the color of that nightgown, Nancy?" and another piped in, "what time does the movie start?" The

local guys were razzing me, all in good fun of course, but I was so embarrassed!

My father said, "You know, if you used CW you could talk on 40 or 80 meters and no one would hear you." That wasn't entirely true, so the idea was appealing. At least there would be a purpose for that darned code. Grudgingly, I started practicing again. My mother upgraded to Extra in a couple months. It took me a year to get to 13 wpm and get my General.

During that year, I spent enough time with code that I got comfortable with it and once I got my 13, something clicked and I got my 20 in about a month with barely any effort at all. Suddenly it became fun!

After I got on the air at that speed, I couldn't get enough of it. I'd come home and rag chew. It would make my day to work a new state or a special event station. Getting the mail each day was like Christmas - QSL cards..certificates! What happened when I reached about 13 wpm that suddenly made it enjoyable?

While doing research on code courses and how people learn, I came across an explanation: Instant Recognition. When you get to a point that you can instantly recognize a code symbol without having to translate it in your mind or do any sort of conscious thinking about it at all, you have Instant Recognition. Once that happens, it becomes effortless and more like a satisfying game. You aren't working, you already "own" those letters. They're part of your subconscious

vocabulary.

This is where people get into trouble using the so-called short-cut programs. Believe me, there are no short cuts. You have to do the work. Programs with memorization tricks make learning more fun and will get you to 5 wpm - maybe 10 - but they will not give you Instant Recognition, which is what you need to get past that "wall" you hear about. You hit that wall when the code is coming at you faster than you can translate.

There are no short cuts. There is no magic pill. This is unfortunate because learning code is boring. Rote memorization is about the most mind numbing thing in the world. But once you get it, it is yours forever, just like riding a bicycle. And it is worth it.

Why is it worth it? That brings me back to what I said in the beginning. There is something about code that creates a feeling that is deep seated and very strong.

I was reading a book called *The Flow* by Professor Mihaly Csikszentmihalyi and it dawned on me that this is what makes people so passionate about Morse code!

Dr. Csikszentmihalyi is a behavioral scientist. He works at the University of Chicago now, teaching and doing research on human behavior. He grew up in a very poor, war-ravaged part of Europe. He was a curious, observant child and noticed that while most of the adults around him

were bitter and unhappy, there were a few who were content and seemed almost happy. When he got older and went to college, he decided to study human behavior so he could see what it was that made these happy people, happy.

He discovered that when a person is deeply wrapped up in an activity that meets certain requirements they go into a state of mind he calls "Flow". Professional athletes and musicians typically go into Flow during their practice sessions.

Hams go into the state of Flow when they get on the air. But it doesn't happen to all Hams, it tends to happen to CW ops, testers, or serious DX'ers.

There are seven criteria for the State of Flow. Let's look at them briefly as they relate to Amateur Radio.

- 1 - The experience must have a definite goal.
- 2 - We must know the steps to reach our goal
- 3 - We must have feedback on how we are doing at each step.
- 4 - We must be able to focus on the event.
- 5 - We must feel in control of the situation.

Ham radio in general satisfies these five requirements. The goal is a QSO. We have to turn the rig on to have a QSO, we get feedback and focus while communicating on the air, we are in control because we can always pull the plug. So far, these Flow requirements could apply to either SSB or CW. But with the next two requirements, important differences occur.

6. Our attention must be completely absorbed in

the operation. When we operate CW, especially at or near our fastest copying speed, the operation demands our full attention. If our mind wanders, we miss a letter or a word. Dr. Csikszentmihalyi calls this mental state "optimal experience." When at this optimal experience, the mind is at its best and happiest. This state also alters one's sense of time, time flies by faster. When the optimal experience is over the person feels content, satisfied, and has increased self-esteem.

Using SSB involves little concentration; you can count the spare change from your pocket or look out the window to check the weather while waiting for your turn to talk. Optimal experience is rarely, if ever, achieved.

7. We must have the possibility of increasing our skill level. When working CW, after a rest, your mind is ready to enjoy another optimal experience. Each experience adds to the proficiency of the operator who develops a desire to increase his speed because he has found that an increase in speed is an increase in fun and self-esteem. There is a huge range for improvement; some operators have reached over sixty words per minute.

When using SSB, there is little chance of developing new skills. This eventually leads to boredom and cessation of operation. This does not bode well for Ham radio as a whole.

Although the no-code license has increased the number of licenses issued, these new licensees are

not going to stay with the hobby in the long run because they are not getting the satisfaction of Flow. They might get up to 10 wpm or so, but still don't feel good about it. They get discouraged and quit or they flounder around wishing they could join in the fun, but aren't sure what to do about it. They aren't experiencing Flow because if they try to learn code at all, they are generally learning code with the aide of crutches and therefore not achieving Instant Recognition.

If you are going to invest the time to learn code, you should do it efficiently. This will allow you to see progress and cut the time you need to practice. Aristotle was the first one to discover and document that when you experience two things within a second of each other, the brain can easily associate them together. The further apart the two actions occur, the longer it takes the brain to associate them and the longer it takes to memorize them. What this means to us, is that when we hear the symbol for a letter we must immediately, within a half second, say or write, or both, that letter. Dit dah A . Not dit dah umm.A. The very instant you hear the last dit or dah, SAY the letter. Do this over and over and over. Take on two or three letters, one at a time, and learn them until you OWN them. Then add another letter, but still keep reviewing the ones you already know. The trick is to OVERLEARN them so they become second nature.

Think back to a time when you heard some-

one from a non- speaking country speak English. They will be chatting along, comfortable with the vocabulary, until they get to a word they haven't used very often. They'll stop and say 'oh.how do you say.?'. They have to stop and mentally translate it because they haven't over-learned that phrase.

Only spend five minutes or so at a time, and spread out your practice sessions throughout the day. Don't forget to INSTANTLY associate the letter with the symbol. This is critical. The most important thing is to get that instant association going in your brain with the symbol and the letter. You may think you are already doing this, but you will probably be surprised. If you already are at 7 or 10 wpm and think that not having Instant Recognition isn't your problem, play a code tape and test yourself. If you hesitate for even a fraction of a second, you don't have Instant Recognition. Having to translate even one or two characters will impede you.

Play those letters over and over and using the Instant Recognition half-second technique. If you work on them one at a time, you WILL own those letters and have the whole alphabet in your subconscious and you will find your proficiency increasing and you will get into The Flow of CW.

You will then understand why CW operators defend the code so passionately and hopefully you will join us in preserving the music of Morse on the air for future generations.

If you'd like to learn more about Flow,

there are many web sites available. One is  
<http://www.brainchannels.com/thinker/mihaly.html>