From No-Code to KNOW-CODE. (as published in CQ-VHF Feb 1998)
 I was a "no-code" Tech and wanted to advance to get my General. Other
advantages would also appear once I mastered the code like working EME
and aurora. Some of the satellites use both VHF and HF links and I really
wanted to work them too. With a "Tech-Plus" ticket I could have all sorts
of fun on the 10 meter band which many feel is the VHF HF band.
I had two choices open to me....
I could wait for the code to be dropped as a requirement while saying
"Are you sure 13-WPM is faster than 65 WPM ?" (I type at 65 WPM).
OR - I could take a positive atitude, and learn code.

I really don't think that code as a requirement will "go away" for a long
time, and I have seen the statement "Nothing gets thru like the code" has a
real ring of truth to it. If you doubt it just listen to the 40 or 80 meter
Novice frequencies some evening. That is why beacon stations are just about
all CW.

So learning code is the road I chose.

In the course of my life I have learned that I am not smart enough to solve
really big problems, BUT.... I am smart enough to solve little problems.

Learning code is a big problem for many of us, including me, but learning
just my name in code is a little problem and is easy to fix.
Learning the name of my town - easy.....
Learning my call - easy.....

We are really talking about breaking this down into steps. The first step is
to learn the alphabet, then numbers followed by punctuation and pro-signs.
Once we get the code down pat we will probably be able to copy at a blazing
one or two words per minute which means we start working on speed.

Establishing small easy to master steps gives us goals that we can reach.
We feel better about the project when we can see and measure our progress
and we actually move along faster.

Using code tapes really sounds like the best way until you hear all of that
good advice warning you that you are going to memorize the tapes. You will
also get lots of advice to not learn the code by sight - after all the test
requires you to HEAR code... NOT see it. It is all good advice.

There are ways around this.

Use scraps of free time - I used parts of my daily commutation time and
(depending on where I was) listened to tapes or translated signs as though I
were sending. You will be better off and learn and retain more with four ten
minute sessions in a day than with a one hour session. Remember what we are
trying to do here is to burn little paths in our brains so that when we hear
DAHDIDAH we really hear the letter "K".

Face it - you are going to memorize the tape but you will be used to hearing
good, clean code. I used the zero to five WPM ARRL tapes and did memorize
them. Most people find it much harder to copy code than to send. You will
soon discover that you can send twice as fast as you can copy.

Listen to the radio - many repeater clubs run weekly code practice sessions

and they can really help. The ARRL runs daily sessions on W1AW and the code
that they send is about as clean as you can get. Listening, you are not going
to be able to copy everything you hear at first, but as you listen you will
improve. If you miss a letter, leave a space and go on - if you dwell on the
missed letter you can easily miss three or four more. Try not to try too hard
creating perfect copy, just copy what you can and notice that as you go you
have fewer blank spaces and actually understand what you have been hearing.

I admit that I was very happy when I was listening to a code session and was
able to copy entire words for the first time. As you progress thru learning
and get in the speed building mode, don't be afraid to listen to the higher
speed sessions - you will be surprised at how much you can copy.

The only way to really build your speed is to practice, and then practice
some more - there is really no substitute for listening and copying code.
When we start our copy practice we all sit there and count dits and dahs
instead of listening for the unique sound of the character being sent.
This is why you hear so much about the Farnsworth method. With Farnsworth
the characters sound the same at 5WPM as they do at 13WPM - the only
difference is the amount of time between the characters.

Computers help too, there are quite a few programs out there that you can
use, and most of them are pretty good. I have been using Super Morse and I
find it helps. You want to have the machine send using the Farnsworth method
like the ARRL code tapes and the W1AW code practice sessions.

Using the computer with Super Morse to build speed has several advantages.
You don't have to worry about W1AW schedules or conflicts with your own
life's demands. Just fire up the machine. There is a feature in Super Morse
that you might overlook..... It is in the "Measure" phase and is the
"Keyboard test". Super Morse sends a character and you have to type that
character in order to continue. If you type the wrong character, he shows
the correct character and sends it again until you get it right.
You end this by hitting the Escape key which makes him give you your score
for the session. The score will show his send rate, your copy speed and
right versus wrong with percentage right. You can get fooled a little here
looking at your copy speed which is really an average, and we are all faster
on some letters than on others. So to get your feet back down on the ground
try the "SOLID COPY" test - once again we get humble. This practice doesn't
wait for you to hit a key, it just keeps going like the real world and blows
you away on your first mistake - sort of like a video game, but excellent
practice for the test.

The "SOLID COPY" is really an excellent speed builder, You set it for a
speed that you feel that you can handle and hammer away. When you see that
you are consistant hitting the one minute mark, change the speed to the next
higher speed and continue from there.

Another function within Super Morse that you will find to be excellent
practice is found in the "Build Speed" menu. This is the "QSO" simulator.
He gives you a test that is very much like the real thing. You use the
"F10" key on your computer to hide and un-hide the text on the screen so
you can grade yourself.

You can tailor what you want to practice on by hitting the "S" key while
using the "ALT" key as a shift. This brings up a menu that gives you the
choice of what you want to practice on, You can choose the alphabet,

punctuation symbols, numerics, and prosigns or any combination.

Starting with just the alphabet and leaving the other characters out lets
you home-in on things like differentiating a "V" from a "U". What is neat
here is if the program sees you are having trouble with certain letters he
will send them more often giving you additional practice. We all have some
problems differentiating some characters - was that a "B" or a "6" ??,
a "V" or a "4", a "J" or a "1" ?? .... this is normal... It happens to
everyone. All of those short practice sessions help make it go away.

If you have gotten the impression that I like "Super Morse" you are quite
right - but there are other code programs available - find what YOU like.

Of course, once you have upgraded to Tech Plus and are starting to work for
that promotion to "General", you have the additional option of ON-THE-AIR
practice via CW QSO's. There is good news here as well, you will be amazed
at the number of upper class operators out there who will carry on a QSO
with you, and use a nice slow sending speed, and do things like sending
their name twice, so you can copy. Basically, these hams remember where
they have been, and are keeping the spirit of "Elmer" alive.

For your part, you should be aware that you can send quite a bit faster
than you can copy - so try to keep your sending speed down to what you can
copy, that will also give the other ham the hint that you are "a new kid
on the block". Another little admonition here about "real world QSO's" is
to keep in mind that slow clean code is much nicer than fast sloppy code.

I have included a table here showing the code normally, and then broken down
into element groupings. The table is to help you with the first step -
Initial learning of code. Make a photocopy of it and carry it with you until
you don't need it anymore. Try to think of the sound of the letter and not
how it looks. NO dots and dashes - just Dits and Dahs. The table is set up
the way that it is for JUST THAT REASON.

As we look at the element groupings we see that there are two single element
letters - E and T. There are four two element letters - A,N,I,and M, and they
are easy to remember - just remember the word "MAIN". There are eight three
element letters - S,U,R,W,O,D,K,and G (DRUG SKOW). This leaves us with only
twelve four element letters (B,C,F,H,J,L,P,Q,V,X,Y and Z).

I mention that all one, two, and three element combinations are valid so that
you can throw any combination of three or less elements at yourself and
puzzle it out at any time. This is good practice and will really help burning
in those brain paths.

We also show some hints to help memorize some of the four element letters.
Please change them to suit your way of thinking. The idea is to get past
counting DI's and DAH's but to listen for the sound, the rythm of the letter
and react - "Here comes the bride" from the "Wedding March" - DUM DUM DI DUM
sounds like DAHDAHDIDAH which is the letter "Q". DUMDIDUMDUM from the Dragnet
series is a letter "Y".

None of this is carved in granite, adopt what you want making changes to
suit YOU. The important thing is to start - start small but build a little
at a time. Ham radio is a hobby, we are doing this for fun, so set realistic,
attainable goals for your steps and have fun. Surprise yourself.

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A   DIDAH           B   DAHDIDIDI      C   DAHDIDAHDI     D   DAHDIDI
E   DI              F   DIDIDAHDI      G   DAHDAHDI       H   DIDIDIDI
I   DIDI            J   DIDAHDAHDAH    K   DAHDIDAH       L   DIDAHDIDI
M   DAHDAH          N   DAHDI          O   DAHDAHDAH      P   DIDAHDAHDI
Q   DAHDAHDIDAH     R   DIDAHDI        S   DIDIDI         T   DAH
U   DIDIDAH         V   DIDIDIDAH      W   DIDAHDAH       X   DAHDIDIDAH
Y   DAHDIDAHDAH     Z   DAHDAHDIDI


1   DIDAHDAHDAHDAH      6   DAHDIDIDIDI
2   DIDIDAHDAHDAH       7   DAHDAHDIDIDI
3   DIDIDIDAHDAH        8   DAHDAHDAHDIDI
4   DIDIDIDIDAH         9   DAHDAHDAHDAHDI
5   DIDIDIDIDI          0   DAHDAHDAHDAHDAH


,   DAHDAHDIDIDAHDAH        Comma
?   DIDIDAHDAHDIDI          Question Mark
.   DIDAHDIDAHDIDAH         Period
/   DAHDIDIDAHDI           slash
-   DAHDIDIDIDAH           dash
!   DIDAHDIDIDI            Exclamation Point - also stand-by ProSign


AR  DIDAHDIDAHDI           AR-(ProSign) - end of msg
SK  DIDIDIDAHDIDAH         SK-(ProSign) - end of contact
AS  DIDAHDIDIDI            AS-(ProSign) - wait - stand-by - Also Excl Pnt
KN  DAHDIDAHDAHDI          KN-(ProSign) - over specified station only
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GROUPINGS:

E   DI              T   DAH

I   DIDI            A   DIDAH          N   DAHDI          M   DAHDAH

S   DIDIDI          U   DIDIDAH        R   DIDAHDI        W   DIDAHDAH
D   DAHDIDI         K   DAHDIDAH       G   DAHDAHDI       O   DAHDAHDAH

H   DIDIDIDI        V   DIDIDIDAH      F   DIDIDAHDI      invalids: DIDAHDIDAH
L   DIDAHDIDI       P   DIDAHDAHDI     J   DIDAHDAHDAH              DIDIDAHDAH
Q   DAHDAHDIDAH     Z   DAHDAHDIDI     Y   DAHDIDAHDAH    invalids: DAHDAHDAHDI
C   DAHDIDAHDI      X   DAHDIDIDAH     B   DAHDIDIDI               DAHDAHDAHDAH
_____
Memory kickers:
Any combination of one, two, or three elements is valid.
Four Element Help:
F = backwards L        DIDIDAHDI
L = backwards F        DIDAHDIDI
P = AN (PAN)           DIDAHDAHDI   * == == *
X = inside out P       DAHDIDIDAH   == * * ==
J = flipped B          DIDAHDADAH   * == == ==   (J+B Scotch)
B = flipped J          DAHDIDIDI    == * * *   or -  was that a B or a SIX ?
V = Beethoven's 5th    DIDIDIDAH
Q = MA                 DAHDAHDIDAH (Wedding March "Here comes the bride")
Y = Dragnet Theme      DAHDIDAHDAH (DUM DE DUM DUM)
C = NN                 DAHDIDAHDI  (CNN -Cable News Network)
H = The only memory kicker I could think of was E I S H 5
Z = Couldn't think of anything special for Z except "N" with a stutter.
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Super Morse Sidebar.
There are many versions of Super Morse available at various sites. The one
that I would recommend is version "4.04", which is named "sm404.exe" on the
various BBS locations where it can be found.
This version will work under PC-DOS, Windows 3.1, and Windows 95.
The "sm404.exe" is a self-extracting "zip" file which you should copy to a
directory named "SM" and then run. You will discover that he will have
created a bunch of files in this directory including an icon named "sm.ico"
that can be used for either of the Windows versions mentioned above.You will
also find a file named "SM.EXE" which is the actual Super-Morse code.

Installtion is straight forward under either of the Windows versions but you
will have to run the "SETUP" function to get it running right.
The big item here is the timing method used to control the formation of the
actual audible code that you will hear. Two methods are used and you have to
choose the right one for your machine.
The "TIMER" option is used for DOS and also works nicely on the newer faster
machines running Windows 95 - really sounds great on my Compaq 200MHZ Pentium
box. The "LOOP" method is for Windows 3.x and for slower boxes - you can
experiment here to get the speed that you want on your machine. You can also
adjust the tone or sound of the code as well as where it is produced (PC
speaker or an optional sound card).
A very well written documentation file can also be found in the "SM"
directory named "SM.DOC". This documentation is quite extensive and well
worth reading.

    Ref:
    TITLE   "NO CODE TO KNOW CODE"
    AUTHOR: Jeffrey M. Lih
    ADDRESS: XXXX XXXXX XXXXXXX
             XXXXX, New Jersey XXXXX
    CALL: N2VHV
    EMAIL: jefflih@XXXXXX.com
    TEL: (732) XXX XXXX

    Foot Note: I passed the 5-WPM test January 11, 1997 for Tech+.
               The General written exam on April 12, 1997 and the
               13-WPM test for my General on July 12,1997. I got
               my Extra in February 2002.