



# ARA *Newsletter*



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The Journal of The Amateur Radio Association of Southwest Florida

## Club Information

### Meeting Time:

4th Tuesday at 7:30 pm at The  
Shepherd of the Glades Church  
Rattlesnake Hammock Road, Naples

### Club Repeater:

K4YHB – 146.670 MHz (-600)

### Club Packet Cluster Node:

N1DL – 145.070 MHz

### Club Chat Node:

CHAT – 144.970 MHz

### Club Home Page:

<http://naplesfl.net/~araswf> or  
<http://naples.net/clubs/amradio>

### Club Officers:

President – AD4TR – Martin

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Vice President – KE4JZT – A.D.

e-mail – [ke4jzt@aol.com](mailto:ke4jzt@aol.com)

Secretary/Treasurer – KD4VRZ – Gary

e-mail – [kd4vrz@arrl.net](mailto:kd4vrz@arrl.net)

Past President – KE4RGH – Bill

e-mail – [ke4rgh@mediaone.net](mailto:ke4rgh@mediaone.net)

Repeater Trustee – WB2QLP – Jordan

e-mail – [wb2qlp@aol.com](mailto:wb2qlp@aol.com)

Club Chat Node – N4VMT – Phil

e-mail – [n4vmt@aol.com](mailto:n4vmt@aol.com)

DX Packet Cluster Node – KD4VRZ

Newsletter Editor – K2ZEL – Bill

e-mail – [nfn06232@naples.net](mailto:nfn06232@naples.net)

Training Committee – AD4TR

Webmaster - KE4KTZ - Glenn

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## From the President

We dodged the tropical bullet once again. Southwest Florida has been pretty lucky for quite a few years. Once hurricane season starts if one lives in Corpus Christi watch out, if one lives in the Florida panhandle watch out, if one lives in coastal South or North Carolina sell and move! Hopefully this pattern will remain with us.

Fall weather and contest season is just around the corner. With the cooler weather it will be time to do those antenna projects. I have some planed and a lot of work planed for the shack. I hope to get a group together in the next couple of months to put up my TH7 on the 70ft tower. I plan to move my the TH5 that is currently up there to a 40ft tower. I also plan to put up a phased 40 meter vertical array. Y'all get your antenna plans together so we can schedule them around the many hamfest and contest and work together as a team to get them done. 73 Martin

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**Club Meeting - Sept.28  
at 7:30 PM**

## Iambic Keying by Chuck Adams, K5FO

To the best of knowledge I truly believe this is the first time that anyone has done this analysis. It does make things much clearer on the evolution of devices used for sending Morse Code. Here are the number of strokes it takes to send each letter using a straight key.

### Strokes Letters that can be sent

One Stroke --- E and T

Two Strokes --- A, I, N, and M

Three Strokes --- K, O, S, U, W, R, D, and G

Four Strokes --- B, C, F, H, J, L, P, Q, V, X, Y, and Z

Five Strokes ---- 1, 2, 3, 4, 5, 6, 7, 8, 9, and 0

So if I asked you to send the entire alphabet and numerals you would have to work the key a total of  $2 + 8 + 24 + 48 + 50$  which is 132 key closures.

Now let's graduate to the mechanical key or 'bug'.

One Stroke --- E, I, S, H, 5, T

Two Strokes --- A, B, D, M, N, 6, U, V, 4, 6,

Three Strokes --- F, G, K, L, O, R, W, X, Z, 3, 7,

Four Strokes --- C, J, P, Q, Y, 2, 8

Five Strokes --- 9, 0

Again, totaling up the number of strokes we get  $6 + 20 + 33 + 28 + 10$  giving us the winning number of 87 motions. This is quite a savings over 132 strokes required for the straight key.

A note on the bug mechanism. There were right-handed and left-handed versions. The right-handed, i.e. you use your right hand to send with it, used the thumb for the dits. For this reason you'll find more than 80% of the right handed users of Iambic paddles will use the left paddle for the dits and the right paddle for the dahs. I recommend that you do it this way so that when you walk into a strange shack or go to field day and sit down at a rig you will Most likely be in tune with the system. IMHO. Physically with the Iambic paddles and keyers there is no preference that I have seen discussed or in my own mind can come up with using one paddle for dits over the other. Then came along the electronic keyer. Now let's again go through our exercise but this time using only a single lever paddle. Here is the count that I get.

One Stroke --- E, H, I, M, O, S, T, 0, and 5

Two Strokes --- A, B, D, G, J, N, U, V, W, Z, 1, 2, 3, 4, 6, 7, 8 and 9

Three Strokes --- F, K, L, P, Q, R, X, Y

Wow!! That saved a lot. Totaling up the damages we get  $9 + 36 + 24$  for a total of 69 which again is a reduction from the previous two methods that involved 132 and 87 strokes for their respective totals. Individuals that use the paddles separate without the

'squeezing mode' will take this number of strokes to send all the characters and numbers. And then came the dual Iambic paddles and more sophisticated keyers. Often referred to as 'squeeze' keying since the physical motion of the fingers is like squeezing the two paddles together in sending some of the characters. It matters not a hill of beans whether you are using mode A or mode B for the keyer as to what the total count will be. Only the paddle timing will vary.

One Stroke --- E, H, I, M, O, S, T, 0, and 5

Two Strokes --- A, B, D, F, G, J, K, L, N, Q, R, U,  
V, W, Y, Z, 1, 2, 3, 4, 6, 7, 8 and 9

Three Strokes --- P and X (this is why contestors do not want these two letters in their callsign)

Now we have  $9 + 48 + 6$  for a total of 63 strokes with a savings in strokes. Of course, for the highest of the highest speeds you gotta make the next logical step to a keyboard and 'voila!' you can get any character in one stroke. :-) And with fewer errors. And a scary thought --- there are people who can copy faster than most people can type. :-) So look at the totals again 132, 87, 69, and 63 for each of the methods of sending Morse. Now you need to sit down with an Iambic paddle and a keyer that does the mode A or mode B and practice sending. Here are my recommendations and remember mileage may vary.

- o Set the keyer speed to 15 wpm or so. No slower.

- o Set the spacing as small as possible on the dit and dah side of the paddle. This requires a good Iambic paddle with fine machining and excellent adjustment mechanism.

- o Adjust the tension as light as you can stand it and then lighten it some more. You just don't want the contacts closing on their own. This will help keep the paddle in one place on the desk too as you use it.

- o Keep the fingers as close to the paddle as possible. Don't let them get too far away, this is important. It takes time to move from long distances away and get to closing the contacts. Simple laws of physics at work.

- o Do not 'slap' the paddle, just a gentle touch should do. It really irritates me personally to see any individual 'slap' a Iambic paddle. It's not a bug that you are trying to kill!!!! (pun intended)

- o Practice getting the feel of the paddle. Try sending just the dit or the dah side with variable number of each. Try not to count as you send E,I,S,H,5,T,M,O, zero etc. Try alternating combinations of dits and dahs.

- o Get a blank piece of paper and write down the alphabet, either random or in alphabetical order and the numbers.

- o Send each letter 10 times, very carefully making sure it comes out

correctly. Keep doing this until you can send each letter 10 times without a single error. Figure out the minimum number of movements to send each letter. Do they agree with the numbers above?

o Then get a book, newspaper, or something that you enjoy and start sending the text. Practice until you can send text with proper spacing.

o Then and only then get on the air and practice some more and do this everyday for the rest of your life.

I am afraid that I am the type of individual that is somewhat of a purist when it comes to Morse. I want to hear spacing ratios of 1:1:3:5:7 for the various parts. People who claim that the 'fist' or the 'personality' of bug sent code is music to their ears haven't tried it at high speeds. And the human mind tires much more faster concentrating and converting when the timing is poor or even just a slight bit off. It slows things down IMHO. Been there and done that. In fact, I am going to recommend that anyone leaving the straight key go direct to Iambic keyers and skip the bug. That outta start the flamewars for sure. Hey, you are going to spend the money on a bug and then later on a paddle and a keyer? My bug from the '60s is in a plexiglass display case and will forever remain there. Once you go to Iambic you'll never go back 'cuz you'll be so good at it. The weighting feature of a keyer is so that one can adjust for the timing characteristics of the rig to get a final ratio of 1:1:3 on the interelement spacing and dit and dah times for the final output. If interest shows up, I'll do a note on the A and B modes of keyers. FYI: and this is not advertising. My favorite paddle is the WBL Design and for the keyer the CMOS III. I do own a Mercury Paddle, no longer available, but haven't used it much yet.

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#### **Dinner Meeting**

**The Dinner meeting was held on the 1st of September, and we had 21 people attending. Our excellent Waitress, Angela, went back to College, so we had all new Personnel waiting on us. But everything went very well. Wayne N4GHN, introduce us all to a new Ham friend of his, KA0NBU John Coates, and his lovely XYL, they had just returned from there Honeymoon. John and Gaynor will join the club and also the quarter century club. Like always there was a lot to talk about it, and everyone had a good time. The next Dinner meeting will be on October 6, 1999, at 6 PM in the Pacific 41. Please call me for reservation 598-1353 Sigi, W2JQ. 73 de Sigi W2JQ**

#### **For Sale**

**Tower—25' Rohn with Ham-4 Rotor and Cushcraft A3S Beam for 40,20,15, & 10 meters includes beam indicator climbing belt, gin pole etc. This is a good deal  
Moving to a Condo  
Make a reasonable offer!  
Jack Quest, WA2JGA  
Phone—262-0858  
%00 Regatta Drive  
Naples, FL 34103**