



## Feedline

Feedline is a member-supported publication of the Cary Amateur Radio Club and is published monthly. Deadline for submissions is the second Thursday of the month.

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## Cary Amateur Radio Club

The Cary Amateur Radio Club meets on the fourth Thursday of the month, **7:00 p.m.** in the lower level of the Christian Life Center of White Plains United Methodist Church. The June, November, and December meetings are held off-site. Call for location of those meetings.

**Next Meeting: August 22, 1996.**

### 1996 Officers

KB9MS	Bob Lukaszewski	833-0199
	President	
N9CGD	Tom Doligalski	481-1236
	Vice-President	
K4IWW	Will Harper	467-0224
	Treasurer	
N4UE	Herb Lacey	467-9608
	Secretary	

## CARC Minutes for July

Meeting called to order at 7:39 p.m., by Pres., Bob, KB9MS. Introductions.

Treasurer's Report - Will, K4IWW,  
Savings: \$3,130.32  
Checking: \$1,486.48  
Total: \$4,616.80.

Dues still being received (\$9/yr.). CARC caps still available (\$4).

### OLD BUSINESS

The Christmas Dinner is scheduled for Thursday, Dec. 5, at Glenaire in Cary. Please mark that date on your calendar!

### NEW BUSINESS

Lee, N4AJF, noted that packet usage is at a low point. Maybe we need a good program on "Packet: All the Questions You Wanted to Ask." It wouldn't hurt!

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## Solar cycle nears bottom

Despite reports that the sunspot cycle has bottomed, conditions may not improve for another year—depending on which data you believe.

Solar prognosticator Tad Cook, KI7H, reports "we are close to the solar minimum." The latest projections show 10.7-cm solar flux—a measurement of solar energy at that radio wavelength reaching minimum in the winter or spring of 1997. Solar flux correlates with ionization in the ionosphere and, consequently, HF propagation.

But telescopic sunspot observations show sunspot number to have reached minimum in the spring of 1996, with an increase expected in late 1997. Astronomers derive sunspot numbers by counting the spots, and factoring in their area. Last summer, astronomers observed what they believe are the first spots of the new cycle—near the sun's poles. Tad Cook explains that sunspots flip their magnetic polarity from each cycle to the next. That makes it possible to differentiate "new" spots from "old."

In any case, the astronomers often don't determine when a new cycle begins until long after the event (like the weather or the stock market—AF6S)

from the *OHIO DX BULLETIN*, via the April '96 Wheaton Community RA (Illinois) *HAMLETTER*  
Ron Hensel, AA9LU, Editor

**Nothing is as inevitable as a mistake  
whose time has come.**

## Hamshack hanky-panky

by *lim Stephens, KB7TZ*

What do all those male and female connectors hiding behind the ham gear do during the night? I never suspected anything until the other night during a CW QSO with a California ham.

Every time I touched the key, the lights dimmed. That makes sense with a kilowatt, but I was running 100 watts. I took a hard look at my station, and found a tangle of wires and cables that would confuse a spider. How could this happen to a neat person like me? It was a mystery to me.

I plugged in my AC voltmeter and touched the key. The line voltage dropped to 109. That did it! I tore down the station.

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## 100 Words

by *Rob, VE3FLB*

If you are learning Morse code, or just brushing up on your verbal skills, this is for you. Morse teachers have long recognized that people who succeed with code can "hear the music" of its characters. Educational psychologists have identified the most-used words in the English language. Once you learn the sound of these most-common words in Morse, you may find yourself "hearing the music" of whole words as well.

To develop this ability, you can use the lists below with your Morse computer program. Here are the most common 100 words in English:

### Group A

Just 12 words account for 25 percent of typical text: a, and, he, I, in, is, it, of, that, the, to, was.

### Group B

The next-most common twenty words are: all, are, as, at, be, but, *for*, had, have, him, his, not, on, one, said, so, they, we, with, you.

### Group C

To bring the total to 100, here are the 68 next-most common: about, an, back, been, before, big, call, came, can, come, could, first, from, get, go, has, her, here, like, little, look, made, make, must, my, new, no, now, off, only, over, right, see, she, some, there, this, two, up, want, what, when, where, which, who, will.

from the *March '96 Lakehead ARC (Thunder Bay, Ontario, Canada) 'Hi-O'*  
*Robert Mazur, VA3ROM, Editor*

### Overheard....

Episode 34: The Reactor Leak

"*Very funny Scotty...  
Now beam down my clothes.*"

# Flea market truths revealed

by Joe Mack, NA3T

flea speak	translation
This rig puts out a big signal	It's 50 kHz wide.
This is a Fine CW rig	It doesn't work on SSB.
It's transmitter is outstanding	It's receiver is dead.
This rig is hot.	It's stolen.
A vintage regenerative type.	It oscillates.
I just retubed it ...	with used tubes.
I aligned it myself.	I jammed the slugs on some of the little transformers.
I don't know whether it works.	It doesn't.
It doesn't chirp ...	because there's no output.
It has lots of audio ...	a strong 120-Hz buzz.
I just serviced it.	I sprayed its innards with WD-40.
That's its original box.	Just dump out the kitty litter.
Better buy it now.	It won't last much longer.
It works at full power.	It sucks up lots of power
It has wide frequency coverage.	It drifts up and down, and outside the band.
It has great frequency stability	under crystal control, its VFO is kaput.
It was a popular rig in its day	HF nets were devoted to its maintenance problems.
<i>QST</i> called it unique.	and a few other things ... the only time expletives have ever graced their pages.
It needs a bit of tweaking.	Maybe Marconi could align it; no one else can.
It was in government service	it was stored outdoors on a pallet for ten years.

flea speak	translation
The dial needs lubrication.	The gears are stripped.
I plugged it in. It lights up.	A two-foot flame came out of the top.
You won't find a better price	from my point of view.
It's a collector's item.	Its maker went belly up.
It's from an estate sale.	Take up any problems with its last owner.
It worked the last time I tried it.	in 1972.
The fuse was the only lightning damage ...	I found with the cover on.
I have its (... ) somewhere. I'll send it to you.	Don't hold your breath.
I'll carry it to your car.	Anything to unload it.
It transmits on 80 meters.	Nothing but parasitics.
Its tubes are worth the whole price.	Good luck getting another 7360 for under \$80.
It was the rig of my dreams	when I was a kid.
Many recognize its signal.	They always recognize its unique distortion.
Vintage shack ambiance.	The smoke it emits will have you wheezing.
Another guy is interested.	He sat on it while tying his shoelace.
Buy now, I'm leaving soon.	The sumo wrestler who bought the last one is coming this way. He isn't smiling.

*from the March '96 Lockheed Employees Recreation Assn. (Sunnyvale, Calif.) 'Amateur Radio Horizons' Jim Woods, KC7FG, Editor*

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Entangled in the snarl I discovered RF cables to long-gone antennas, power cubes terminated in nothing, and no fewer than three multi-outlet power strips daisy chained to a single wall socket. Did I create this octopus? "Of course not; I know better," I told myself. Those nasty connectors were getting together after I went QRT. Well, this chaotic "family" was about to be broken. I disconnected all

power before beginning my "surgery." Then I ripped everything out, releasing all spiders. And I set all those old power cubes aside for possible future use. Then I labeled every connector, cable, and wire with masking tape-at both ends. I connected all radio equipment to a wall outlet separate from the computer gear, and installed surge protectors on both. Finally, with everything rerouted, it was time

for that venerable ham standby, the "smoke test." With the dummy load connected, and my eyes on the AC voltmeter, I pressed the key. The meter read 116 volts and, as my granddad would have said, "Nary a flicker." And I'd freed up one whole power strip in the process. Now, if I can keep those male and female connectors distracted ...

*from the Feb. '95 Radio Club of Tacoma 'Logger's Bark-Ralph, KA7FIG, Editor*

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## July Minutes

Jerry, KE4QBG, said the Cary Police Dept. is interested in getting together with CARC to establish a VHF station at Town Hall. The contact is Edna Dickie. This is a good opportunity for us.

After a break for refreshments, a program on Field Day results and wrap-up on the SWAPFEST was given.

FD went good at the new location. The door is open at Town Hall to use it next year. We could have used more operators! Still, the score was over 7,000 without any bonus points.

Send \$50 donation to the Cary Area Rescue Squad for the loan of the Communications Van. Agreed.

Swapfest unfinished business. Write JPS to thank them for the donation of the NIR-12. Great prize! Contact is Doug Hall.

Attendance was off slightly. Some of that was attributed to being the first day of the Olympics (we hope!) The mailing is vital. All agreed we must continue it.

n4ue

Here are the programs for the rest of '96.

August 22

Grounding/Lightning protection  
K4PB

September 26

Digital Communication Modes  
N9CGD/KB9MS

October 24

Elections  
RFI/EMI protection  
WA4OOD

December 5

CARC Holiday Dinner

## Get the right keyer paddle base

by Andy Emars, NX1O

Two keyer paddle types are available today, iambic and non-iambic. An iambic paddle sends alternating dot and dashes when both paddles are held together, whereas the non-iambic paddle sends a series of either dots or dashes, depending on which paddle made contact first.

In addition, manufacturers offer three varieties of mounting base: (gold, chrome, and black.) How does a paddle's base affect its CW signal? That's the subject of this article.

### The gold-base paddle

Obviously, the gold-base paddle is the most expensive. Gold is soft. I'm sure anyone who has listened to CW on the bands has heard a few soft, almost slug-ish-sounding CW signals. It's fair to assume that a gold-plated paddle produced those "golden waves," whose rise- and fall-times are long - tens of milliseconds. Your ear senses the gentle approach to full amplitude, and the slow fade-out each time the paddle's contact is broken.

Neither more transmitter power nor increased receiver gain will eliminate the soft sound of a gold-base paddle. A gold base is fine for impressing your non-ham friends, but real CW ops leave their gold in jewelry and tooth fillings.

### The chrome-base paddle

This paddle carries a middling price. Its shiny appearance is striking; you can see your reflection in it. But a drawback you may not be aware of is that it also induces reflections in the feedline of your antenna system. In our ham radio studies, we all learned about antennas and feedlines, and the importance of eliminating reflections.

So avoid chrome paddles if you have a marginal antenna system, particularly if you operate in VHF or UHF bands. Chrome belongs on your bumper, not under your paddle!

### The black-base paddle

The least expensive base is best in all-around performance and handling. CW from a black paddle sounds crisp and clean. It's a real CW man's paddle! There are no reflections from this paddle.

A proper CW waveform features a dash about 500 milliseconds long at 20 wpm, with rise and fall times of 5 milliseconds or so. A black paddle produces just those waveforms.

As a bonus, a black paddle has "the stealth" look so desirable when chasing rare DX that might be scared away by the glitter of gold or the flash of chrome.

So if your heart's desire is to send the best CW, get your fingers around a black-base paddle. You can invest the money you save in Morse Code lessons or CODECK, the Morse training flash cards!

I hope you found this article enlightening. This newsletter often includes such technical articles-for the educational benefits they provide. If the material is difficult for you, ask any old CW geezer for clarification. You might even ask for a demonstration of a real CW QSO.

from the April '95 South Orange ARA "The Propagator"--Paul Levey, NLZM, Editor

HELP!

I've fallen down and I like it down here!

Shotgun Wedding: wife or death

## Pay often

From time to time our members neglect to renew their memberships. Here's a tip to help you maintain your good standing in the organization:

Pay your dues regularly and often. And to ease distribution, your officers prefer small, unmarked bills.

Should you require assistance, we have retained services to help you find the money. Please don't make us resort to this unpleasant alternative.

by N6PWC, from the April '95 South Orange ARA (Mission Viejo, Ca.) "The Propagator" Paul Levey NIZM, Editor

He who dies with the most toys...  
is dead.

For you propellerheads...  
OBJECT:  
A data structure with an attitude.