

**Funny Noises**  
by  
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*By the Numbers--*

*Morse Code after Restructuring*

The expression "by the numbers" is used to describe a process that is defined in sequential steps, and usually it is the best way to do anything that is complicated. If you are undergoing brain surgery, for example, you probably will want your doc to do it "by the numbers." If you are building a transceiver kit, you will probably be working with numbered instructions and you can easily end up in trouble if you don't do it "by the numbers." But the expression has another meaning when applied to running a business or other organization, and *management* by the numbers is fraught with peril. We have a generation of MBAs in charge of many of our corporations (and even government departments) who have been trained to run their operations "by the numbers." After all, numbers are how we measure our successes and failures in business and in government, and numbers don't lie. Or do they? Maybe the numbers themselves don't lie, but there is nothing to stop you, me, or the government from using numbers to support some fairly serious lying!

You can indeed run an organization effectively if (a) you have accurate numbers, (b) you understand what the numbers mean, and (c) you know what to do about it.

Generally speaking, if there is a problem in the numbers (sales going down, costs going up, whatever...) the effective manager will verify the relevance and accuracy of the numbers, look for the causes that underlie the problem, and act accordingly. That's doing it by the numbers. If you don't do it by the numbers you might well act to solve a problem that doesn't exist, and you could end up creating a worse problem than the one you were trying to fix.

Therein lies the biggest problem faced by the Amateur Radio Service today.

Amateur Radio is 'run' by two organizations, the FCC and the ARRL. The FCC has a complex agenda which includes Amateur Radio but with a very low priority. The numbers that drive the FCC are the dollars that they can get for administration and regulation of communications. Administration of the Amateur Radio Service is generally left to the ARRL, which has historically done a very good job.

It has become increasingly apparent, however, that the ARRL is currently working with inadequate numbers, doesn't fully understand the numbers that they have, and has absolutely no idea of what to do about it. Here's what happened:

In the late 1990s the ARRL saw a sharp decline in membership, found a corresponding decline in FCC license numbers, and concluded that the hobby was in serious trouble. The decline in membership was a fact. The decline in license numbers was also a fact, so it was seized upon as an explanation for declining League membership. From there, the League somehow concluded that the numbers were declining because there were too many “barriers to entry,” that is, it was too hard to get an amateur radio license. By this time the written exams were almost a joke—public question banks and “cram courses” online and elsewhere that would guarantee you an exam pass in a weekend. The problem must be Morse code. And after all, there were thousands of people clamoring for elimination of the code qualification, many of them well organized and (apparently) well-funded. So, despite multiple surveys indicating that a majority of League members wanted the code tests to continue, the League decided that they had to go. How could this be, if the League is a membership organization?

Financially, the ARRL is essentially a publishing organization—by far the majority of its resources go to publication of QST and books. A decline in League membership is the same thing as a decline in subscriptions to QST, and advertizing revenue is directly tied to subscription numbers. So, yes, QST was in trouble and therefor the League was in trouble. The publishing and editorial staff at any *normal* magazine, confronted with declining subscriptions and renewals, will try very hard to find out why the magazine is not meeting the needs of its readers. They will take steps to change the magazine, or else the magazine will go under.

QST and its parent organization were in the unique position of being able to change the *hobby*. Or so they thought. “More people will become hams if it is easier to get a license,” they thought. The one thing they could do to make it easier was to reduce the Morse requirement. In April of 2001 the 13 and 20 WPM code requirements were eliminated, with dramatic and immediate results. Everybody and his dog upgraded to General or Extra at the first opportunity.

But the hoped-for increase in new licenses did not happen. “Aha,” thinks the League, “*any* Morse requirement is too much.” And so in 2005, the Morse requirement was eliminated completely.<sup>1</sup> Undoubtedly the League expected a big influx of new hams, but it didn’t happen.

The decline in League membership (i.e., QST subscriptions) was *not* due to the difficulty of the Morse test, or any other “barrier to entry.” All print magazines are seeing declines due to the prevalence of more timely modes of mass communication. The content of a magazine is frozen at least a month before delivery to subscribers. Who among us wants to read news that we saw on the Internet or TV a month ago? As at April 1<sup>st</sup> 2000, QST was one of four national magazines

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<sup>1</sup>The ARRL proposed retaining a 5 WPM Morse requirement for the Extra Class license. The cynic in me suspects that this is because survey after survey has shown that the majority of ARRL members wanted the code requirement to be retained. Ironically, the FCC saw what the League could not, that this was a nonsensical proposal, and the FCC eliminated the code requirement entirely. As something that can be and often is done by Cub Scouts for a merit badge, a 5WPM qualification is really no Morse qualification at all, and associating it with the Extra ticket borders on insulting. As my own Elmer told me a long time ago, “Your 5 WPM test gets you a license to *learn* Morse.”

devoted to non-specialized amateur radio. Since then one has gone out of business and the remaining three are *all* struggling.

The decline in FCC license numbers had still another explanation. There was a big influx of no-code Technician licensees following the elimination of the code requirement for the Tech license. Why? We forget what the world was like before cell-phones. Large numbers of no-code techs got their tickets specifically so that they could use local repeaters and autopatch (access to the telephone system through the repeater). Getting a ham license was a lot easier and less expensive than getting the old-fashioned mobile phones. But there was little in League membership or in QST to hold their interest, the great mass of General and above hams were somewhat less than welcoming, these folks had no need for the license once cell-phones became readily available. So they didn't renew their licenses after expiration, creating a drop in license numbers that was as significant as the original increase.

So there *was* a decline in FCC license numbers, but it was not necessarily an indication of a problem. That's where we get into the notion of "validity and relevance." The ARRL (and QST's) market can easily be defined as *active* amateur radio operators. Unfortunately, there is nothing in the FCC database to indicate whether an amateur is actually using the privileges of his ticket. From there we can easily see that substantial changes in the overall license numbers, and even the numbers for new licenses, give us *no idea at all* about changes in the *active* population. For all we know the number of *active* amateurs could have been increasing steadily over the last ten years. Haven't we QRP operators noticed an increase in CW activity on the bands, and haven't the phone operators been complaining that the bands are too crowded?

There's another important question here that didn't get asked and couldn't have been answered—what *is* the "right" size for the amateur population?

If numbers are declining a bit, is that necessarily a bad thing? If they are increasing is that automatically a good thing? The only thing that we could say about those numbers, with any confidence at all, was that current subscriptions to QST were not enough to keep QST in the style to which it had become accustomed.

It is sad that the ARRL failed to understand amateur radio demographics, sadder if they deliberately distorted the picture to support their own preconceived notions, and beyond sad if they were motivated and blinded entirely by institutional self-interest.

But if the League's perception of a problem was sad, their attempts to solve it have been pathetic. They still seem to be operating under the assumption that interest in the hobby is declining because it is too hard to get a license.

As one who fairly recently earned his wings, I can tell you that it is a whole lot harder to get a private pilot certificate than it is to get an Extra class ham license. If you want to fly, you'd better plan on investing hundreds of hours over the course of about a year, and somewhere between six and ten thousand dollars. You will have to pass a written test, and also a check ride with an FAA examiner. Hard work? Yep. Expensive? You bet. So please explain me this:

There are 1.2 million licensed private pilots in the US. There are approximately 695,000 licensed amateur radio operators. There are approximately 700,000 *active* pilots,<sup>2</sup> compared with who knows how many active hams.<sup>3</sup>

What can we conclude from those numbers? Simply this, which I will immodestly call “N1FN’s first law of hobby economics:”

**If people really want to do something they will find a way to do it, regardless of time, effort, and expense.**

The corollary is equally obvious and important: **if people *don’t want to do something, it doesn’t matter how easy it is.***

And thus we arrive at N1FN’s second law of hobby economics:

**You can’t make people want to do something.**

If the ARRL wants to get more people into amateur radio, they are wasting every bit of time, money, and effort that they are expending to make it easier. Instead they should be focusing on promotion of the core aspects of the hobby, including but not limited to HF CW. You won’t get a whole lot of recruits by showing them how easily they can get a license to do things that they can already do better and cheaper with a cell phone, or with a computer and the Internet. By and large, I am convinced that QRPers, intentionally or otherwise, do better job of promoting the hobby to the public at large than the ARRL does.

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<sup>2</sup>The number is known because pilots must maintain a medical certificate and pass a review every two years.

<sup>3</sup>We could apply the pilot percentage to hams thus: 68% of pilots are regarded as active, and 68% of amateur radio licensees would be around 475,000. But that would be way high and I could speculate that a higher activity rate for pilots is a reflection of what they have invested in their ticket. I could also speculate that ARRL membership, at 156,000 in 2010, or less than a quarter of all licensees, is a better measure of activity.