



It Seems to Us

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ARRL Chief Executive Officer

A Passion for Amateur Radio

Retiring ARRL Chief Executive Officer David Sumner, K1ZZ, delivered this keynote speech at the ARRL National Convention banquet in Apopka, Florida on Saturday evening, February 13, 2016. On the previous Thursday, February 11, researchers announced the first confirmed detection of gravitational waves.

Thank you all for coming. It's wonderful to see so many old friends in the room and to be able to put faces to familiar call signs. I am retiring after 34 years of leading the ARRL Headquarters staff. I have worked the last few years on being the least essential employee for day-to-day operations. I don't do much on *QST* anymore except page 9, "It Seems to Us"; I'll say a bit more about that later. We have assembled a great staff, thanks to Harold Kramer, WJ1B, and Barry Shelley, N1VXY, who is home minding the store. As has been pointed out, Harold is retiring in 2½ weeks and we will all miss him. On spectrum defense, which has been my first love since the '70s, I am able to pass that responsibility on to Brennan Price, N4QX, who is here.

But as has been pointed out, and I can shorten my speech here because others have said it so well, ARRL is in essence an organization of volunteers. It's all of you in this room who do things for the League directly, or through your clubs, or through your other activities to support the advancement of the art, science, and enjoyment of Amateur Radio, and that is a phrase you will hear often. Amateur Radio could not afford a professional staff to do everything that needs to be done on behalf of Amateur Radio at all levels: international, national, state, and local. ARRL Headquarters is a service center to support members, and especially volunteers, and to ensure continuity of essential activities such as advocacy.

So for that reason, as General Manager and later as Executive Vice President and CEO, I have tried to keep the focus on the volunteers, who now are so ably led by ARRL President Rick Roderick, K5UR. Over the years I have not talked much about myself in *QST* or in speeches. But every one of us, every radio amateur, has a story of how they became involved in Amateur Radio and how it has influenced his or her life. I'm going to tell you mine, and then I'm going to tell you somebody else's.

Beginning with a Cat Whisker

I'm a Connecticut native and at age 10 my uncle gave me a crystal radio kit. It was the old fashioned kind with a cat's whisker and a galena, and I played with that for hours and hours and couldn't even hear the local broadcast station. And then one night, this booming *Columbia, the Gem of the Ocean* comes in through my headphones, and it's the Voice of America transmitter WLWO near Cincinnati, Ohio. And I'm in southeastern Connecticut. How was the signal covering 600 miles to reach me? Well, I was

10 years old. I didn't process that right away. My obsession was baseball.

So a couple of years later, my father, who by then had suffered through 5 years of managing my little league baseball team and recognized I had no talent there, [laughter] arranged for a family friend to give me a couple of shortwave radios. Then he encouraged me to get a license. So at age 13 I became a Novice, KN1ZND. I upgraded as fast as I could.

I know the ARRL is a volunteer organization at its essence because at age 14 I became one. I became an Assistant Emergency Coordinator for New London County, Connecticut, and I forged the signature of the Emergency Coordinator on the certificate for a reason that I know one person in this room will understand, and that's our Connecticut Section Manager Betsey Doane, K1EIC, because Betsey knew Bud Ward, W1GEA.

Bud was born with cerebral palsy. He spent his entire life in a wheelchair. In the early '50s

Coronet magazine, which was a kind of *Reader's Digest* magazine of the time, wrote an article about "The Wheelchair Wizard of Radio." That was Bud Ward. He trained returning GIs from World War II in radio-TV repair and electronics. He was self-taught. After he ran out of returning GIs, he started recruiting high school kids, so at age 14 I went to work in Bud's shop after school. Obviously, I learned a great deal more working with Bud than electronics. I learned to not judge people by their apparent disabilities, because he had certainly overcome his.

So, I got involved in CW traffic nets. Tom Gallagher, NY2RF, CEO-Elect, and I have compared notes on this and we found that we had a similar experience. It was the first time in my life that I was treated as a peer by adults. Here I am, 14 years old, I'm checking into a CW traffic net, and they don't care how old I am. They only care: Am I reliable? Am I accurate? Will I follow directions from the Net Control? It was a formative experience in my life. Tom has said the same thing and others have said much the same. It was a very important part of my maturing.

Well, by the time I went to college in 1967 I had made 20,000 QSOs. Different people waste their youth in different ways; I have a written record of mine. [laughter] So, I went off to Michigan State University in East Lansing. You would wonder: Why would

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“To advance the art, science, and enjoyment of Amateur Radio.”

A Passion for Amateur Radio

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someone from Connecticut go to Michigan State University? Some people have assumed I must be from Michigan because I went there. But no, I went to Michigan State because the club station, W8SH, had a complete Collins S-line including a 30S-1. [laughter and applause] So that sealed the deal as far as I was concerned. I've never told my parents that story, by the way. [laughter]

Hired at Headquarters

I came back after my first quarter out there and came to Newington and stopped in to see Ellen White, W1YL, who was at the contest dinner last night. Anybody here who was at the contest dinner? [many hands are raised] You heard her say that she hired me for my first job at ARRL Headquarters, and she did indeed. On June 10, 1968 I showed up as a summer employee checking DX Contest logs and went back after I graduated in 1970 and worked for a while longer.

But contrary to popular opinion, I have not spent my entire career at ARRL. I worked for a year in the home office of an insurance company in Hartford. It was not a year that was wasted, Amateur Radio-wise. I won both the CQ CW and the ARRL CW DX Contests that year, and at age 22 was appointed to the Contest Advisory Committee by New England Division Director Robert York Chapman, W1QV, who was a legend in southeastern Connecticut. He had been on the air since the early '20s.

After a few months of my writing letters, communicating amongst the CAC — which of course was all done by mail — Ellen White was the CAC liaison, and what that meant was that everything we circulated went to Ellen, and she had to get it duplicated and mailed out to everyone — there were 11 committee members in

those days — I think that finally she got tired of this and went to see Perry Williams, W1UED, and said, "Perry, can't we hire this guy so we can get him off the CAC? I have other work to do." So

Perry, who we lost late last year — and anything that has ever been said about me and my memory applies to Perry — offered me a job and I went to work at ARRL Headquarters.

One of my first assignments was to support the IARU. The timing could not have been better from my personal standpoint because we were just about to embark on preparing for this legendary 1979 World Administrative Radio Conference. So I got to do that. Somewhere along the line I got an MBA and so, in 1982, and there are a couple of people in the room who remember that, the Board, having cast about for somebody — anybody — from outside to take the job when Dick Baldwin, W1RU, retired, decided they might as well give it to me, at age 32. So 34 years later, I'm still at the same desk I inherited from Dick Baldwin.

As I have said, my main focus has been on spectrum defense: Allocations, maintaining useful access to the spectrum, fighting off Little LEOs — low Earth orbiting satellites — fighting BPL, now unintentional emitters of all kinds with a lot of help from the ARRL Lab staff.

Evelyn Gauzens, W4WYR

I want to say a brief word about another person we have lost recently, Evelyn Gauzens, W4WYR. Evelyn was the longtime Vice Director of the Southeastern Division — 22 years. You know her, if you've been around a long time, for running Hamboree for many years. I first met Evelyn when we were planning the 1976 IARU Region 2 Conference, which ultimately ended up being held in Miami Beach. The reason it was so important is that this was where we would get all of the global leaders of the

Japan Amateur Radio League, of RSGB, of the major national societies together to agree on a common strategy, a common objective for the 1979 WARC. And Evelyn organized that. Later on, she organized a meeting where the Amateur Radio Industry got together with us and worked on what ultimately became known as Novice Enhancement — really Technician Enhancement — that put Technicians on 10 meter SSB. These were things she did behind the scenes. I knew about them and I appreciated them. I don't think the general amateur population realized how much credit she was owed for those kinds of supporting activities.

Amateur Radio: The Road to Discovery

Well, at this point I had to tear up what I was planning to say because of an announcement that was made on Thursday.

Over the years I have written more than 400 columns of "It Seems to Us" on page 9 of *QST*. It's a discipline of writing to fit what you want to say within 900 words. That also means, by the way, that I won't talk too long tonight. Tomorrow

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The 1979 World Administrative Radio Conference in Geneva, Switzerland.

is Valentine's Day and I know some of you guys have to do some shopping on the way home tonight. [laughter]

Speaking of Valentine's Day, I couldn't have done what I have done without the support of my spouse, Linda, KA1ZD. [applause] While I was off doing whatever I was doing, Linda raised a terrific daughter of ours, Deryn, N1UCI. A few years ago I made the mistake of commenting to Deryn that there was a novelist who had just been picked up by the Oprah Winfrey Book Club and had skyrocketed to prominence named Wally Lamb. Wally Lamb was a year behind me in high school at Norwich Free Academy (NFA Radio Club, W1HLO — he was not a member) and I mentioned to Deryn that he and I had the same English teacher. So she turns to me and in inimitable daughter fashion says, "So Dad. Why aren't you an award winning novelist?" [laughter] She comes by it very honestly because she gets it from Linda, who when explaining to our non-ham friends what it is I do just says, "Dave is a big fish in a very, very small pond." So, Tom, welcome to the pond.

But getting back to page 9, out of the 400+ columns one of my favorites is December 1993 *QST*. In that editorial I described another Novice who became licensed at age 13 as KN2ITP. In those days Novices had 2 meter privileges, and he and his brother entered the ARRL VHF QSO Party in June 1955. They made a respectable score as Novices. They came back as K2ITP in subsequent years and made quite a record for themselves from a farmhouse in southern New Jersey. This led at age 17 to this individual having published, in December 1958 *QST*, his first scientific paper. It was entitled "Working Ionospheric Scatter on 50 mc — DX when the band is dead." So he had built his reputation in high school. He went on to college and ultimately received a Ph.D. in astronomy from Harvard University.

Many of you have already realized that I'm talking about Joe Taylor, K1JT. In 1974, Joe was a professor at the University of Massachusetts and he and a grad student, Russell Hulse, WB2LAV, went down to Arecibo. They had an experiment using equipment for the automatic detection of pulsars that they wanted to try out on the big dish down there. At the time Sam Harris, W1FZJ, was at Arecibo on the staff. Sam had been the *QST* "World Above 50" columnist for many years. He recognized K2ITP. So is it coincidence that they got time on the dish? I think not.

They spotted more pulsars than had ever been spotted up to that time, but they noticed one that was very interesting. They had found a *binary pulsar*. This is two neutron stars going around one another at a very rapid rate. One of the stars is emitting a lot of RF energy — the other, as it happens, is not — so by Doppler they could tell a great deal

about this binary pulsar. I'm not going to tell you all about it. If you ever get a chance to hear Joe explain it, go. He is the sort of guy who raises the IQ of everyone in the room by 10 points just by being there.

They figured out that this was going on 21,000 light years away. These two objects, each with a mass greater than our Sun, were generating gravitational waves. They observed this over a period of time and what they observed was consistent with Einstein's theory of general relativity, which up to that point had not been verified. They could tell, from 21,000 light years away, that every time these two pulsars went around each other they grew 1 millimeter closer together. Think about that.

So, needless to say, the title of "It Seems to Us" for December 1993 was "How to Win the Nobel Prize." Because it's obviously: you get in an ARRL VHF contest. [laughter] And everything else just follows.

At the 2012 World Radiocommunication Conference, there were over 1000 delegates in the room when the Secretary-General of the ITU presented Joe Taylor with the ITU Gold Medal for his contributions to radioastronomy and radiocommunication. So picture this: the entire conference has come to a complete halt on a Friday afternoon. The Secretary-General says to these 1000+ delegates, and this is being translated into the six

official UN languages, I want to introduce you to Dr Joe Taylor, who became a radio astronomer by starting out in Amateur Radio. If you think we don't have respect, I can tell you, *we do*. It was probably the proudest moment I have had in Amateur Radio, just sitting there, watching Joe receive this.

What was really neat was the following night. I found Joe at 4U1ITU, the International Amateur Radio Club station in ITU Headquarters. He was doing the first 23 centimeter moonbounce from there. The station had 17 W feeding four Yagis on the roof.

This was the coldest February I think anyone had ever felt in Geneva. Joe, using his software, figured out that they weren't getting the sort of signal off the Moon that they should be getting, and that one of the four Yagis was out of phase. So up he goes on the roof of the building, with a freezing cold blowing off Lake Geneva, and there's our Nobel Prize winner and newest ITU Gold Medal recipient, up there on the tower turning the Yagi over. It was quite a moment. We made three contacts that night and then the Moon went behind the 15-story ITU Tower, thereby demonstrating another law of physics: that you're not going to get a signal through that up to the Moon.

I was sitting next to him most of the night working 160 meters, and for the record I will note that the farthest DX I worked that night was K5UR. [laughter]

Joe of course has moved on to give us JT65, JT9, WSJT, all of these modes that we use today. He has taken what he learned from Amateur Radio, applied it to radioastronomy, and now is applying what he has learned in radioastronomy to Amateur Radio. He turns 75 next

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Joe Taylor, K1JT, speaking at the ARRL Centennial Convention in Hartford, Connecticut in July 2014.

month, and I think he's still the 17-year-old who wrote the *QST* article — and he was on for the VHF contest 2 weeks ago.

Let me get back to Thursday's announcement. Gravitational waves were actually detected for the first time. You may have seen the headlines. What happened was, 1.3 billion years ago two black holes merged and let off enough energy in the form of gravitational waves that, according to an article I read, it briefly exceeded the energy in all the visible light in the known universe. So, 1.3 billion years later, there's a group of scientists in the United States who are looking for that exact thing to happen using a Laser Interferometer Gravitational-wave Observatory (LIGO — I think of it as LEGO with an additional dit). And Joe Taylor is back in the news.

Think about that. 1.3 billion years ago this thing happens. A century ago Einstein theorizes that it would happen. Forty-two years ago Joe Taylor's observations confirm the theory, and now it has been directly observed. In our little window of time while we have been on the planet, that has happened. So Joe Taylor gets mentioned in the same sentence with Einstein.

You might remember the story of Einstein explaining radio. He says, it's really quite simple. You know how the telegraph works. Think of a cat with its tail in New York and its head in San Francisco. Someone in New York pulls the tail and it meows in San Francisco. Radio is just like that, except there is no cat. [laughter]

Sailors of the Electromagnetic Waves

What there is, is the ionosphere — and the troposphere, for those who work moving up in the spectrum. Radio is a natural phenomenon. It is a part of the natural world. I believe that in every generation there will be people who want to understand how their world works, including how radio waves propagate beyond line of

sight and into space. They will want to harness this natural phenomenon to communicate not because they must, but because they can. It's the same driving force that makes sailors want to go places by harnessing the wind and the ocean currents. We are the sailors of the electromagnetic waves.

I am passionate about Amateur Radio. I know many of you share my passion, or you wouldn't be here and you wouldn't have done all you have done over the years for ARRL and Amateur Radio. Our challenge is to explain our passion, how to convey it to younger genera-

tions that have grown up at a time when instant global communication is taken for granted.

Can we do it? Can we explain the allure of acquiring the knowledge and skill to communicate anywhere on or in orbit around the planet without relying on any cat — any infrastructure whatsoever, while using less power than an incandescent light bulb? *I believe we can!* [applause]

Amateur Radio is expanding just like the universe. One of the reasons I object to being called "Mr Ham Radio" is that, while in 1982 I could claim to have done everything there was to do in Amateur Radio, it is no longer possible for one person to do everything that is available to do in our avocation. It's going in so many different directions.

What fascinates young people today is different than for those in my soon-to-be-fading Baby Boomer generation. We don't know what the future will bring; there are so many possibilities. At the ITU in 2012, Joe Taylor speculated about someday communicating using gravitational waves. I doubt I will live to see that, but this evening, somewhere on this big blue marble, there may be a young person poking at an Arduino or a Raspberry Pi board — probably not at a crystal radio — who will. And I hope that my career has contributed to their being able, in the future, to have the same opportunities we have enjoyed. I have cherished the privilege of being able to turn a passion into a career, and have not lost the passion along the way. And I'll tell you, I have never wanted any other job.

I have been asked what I will do post-retirement. Well, there's a lot of antenna projects. There's a long list of things I need to do, including making Linda louder on 10 meters — and 10 GHz, by the way. Linda and I will travel while we can. I hope to continue to contribute for a while longer as an IARU volunteer.

Remember the ARRL mission. It's just 10 words: To advance the art, science, and enjoyment of Amateur Radio. Please continue your support of the mission of the ARRL, and support Tom and what soon will be his staff as you have supported us throughout my tenure. Thanks again, and see you on the air!

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Retiring ARRL CEO David Sumner, K1ZZ, delivering the keynote address at the ARRL National Convention banquet. [Bob Inderbitzen, NQ1R, photo]

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