DEAF TELECOMMUNICATIONS NETWORKING

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Thank you every one of you for giving me the opportunity to give you a glimpse into the world of deaf telecommunications. It should be of interest to you because our technology interrelates with yours in many ways, and perhaps might even spur you on to better developments.

Life is full_ of historical accidents that shape the course of history. The particular historical accident that I wish to bring up refers to one of your people, a deaf one at that. In 1964, Robert Weitbrecht, of California who is one of the world's few deaf licensed radio hams, was hiking in the mountains with a group of friends. Another group of hikers converged onto Weitbrecht's group. In that second group was a couple whose son is deaf. That couple overheard a very distinct speech and knew that it was from a deaf man. This couple walked over to Weitbrecht and introduced themselves to him. In the course of conversation, this couple learned of Weitbrecht's diverse interests, one of which was radio-TTY. Coming home, this couple related this encounter to their deaf acquaintance. This acquaintance knew of a deaf dentist who had wished for some sort of telephone communications tool to be able to reach his clients. One thing led to another, and introduct ions were made all around. This deaf dentist inspired this deaf radio ham/hiker to come up with such a TTY device for the deaf. This is how history was made.

Our present TTY or better known as TDD (Telecommunications Device for the Deaf) network consists of 75,000 installations all over this country. This phenomenon, starting slowly in 1968 and growing by leaps and bounds each year, is not without its curses as well as its blessings. The blessings we all know about. But the curse is the ASCII/Baudot controversy. In 1964 when Weitbrecht came up with his prototype TTY modem, it was designed to work with then-current teletypewriters using the Baudot code. He chose this code for convenient reasons which were valid at that time -- availability of surplus Teletype Corporation machines by communications carriers, ASCII technology being so new and not fully understood, ASCII parts and equipment being so costly and way above the means of the average deaf households. At any rate, we are witnessing a spectacle -- the 75,000 TDD units, all of them predicated on the Baudot code, being considered very useful but very obsolete when we look at the ASCII tide

engulfing us today. We should switch to the ASCII code, but it just cannot take place over night. This would suddenly disenfranchise those deaf TDD users, many of them from low-income households.

A way to bridge this ASCII/Baudot gap is a dual modem capacity. The average TDD has a life expectancy of some five years. So it is in the replacement dual-modem TDDs that we hope will slowly swing the pendulum towards the ASCII camp. Protocols are another matter. If I had made this speech a year ago, I would not be so sure o:f protocols. You see, when a flashing light indicates a telephone ring in the home of the deaf, we would have to determine whether it is a voice, Baudot or ASCII call. It would be cumbersome to fiddle around with full duplex/half duplex and with originate/answer switches. But today, technology has come up with an automatic ASCII/Baudot detector, so this set of protocols is taken care of.

Now we are into electronic mail systems. There are several such systems which have served the deaf. One of them is DEAFNET which serves the Washington, DC and the San Francisco Bay deaf communities. It has ASCII/Baudot capabilities. Another one was the Hermes System which served the Boston area before funding ran out. But replacing the hermes is the GTE Telemail System. The Hermes was self-containing in that it was restricted for the use of the deaf only, and ASCII terminals had to be used. Now they have the GTE Telemail, which is a piggy-back system. Here, in. addition to DEAFNET, we have the Virginia TTY message system which is totally Baudot. All this is very promising for us in the years to come.

We have been asked by many radio hams about the possibility of the deaf getting involved with radio-TTY. This is another possibility, but not without *problems that must be overcome. One is attitude -- the deaf like to ragchew with another deaf acquaintance; because there are so few licensed deaf hams around, this is a factor. Second is the matter of taking Morse code exams. There is always that hearing impairment will thwart the mastering of the Morse code. Perhaps this is psychological, but it still must be overcome, Third is the lack of familiarity with the various kinds of radio equipment, such as short wave, Citizens Band, pagers and the like. We, the deaf, look on all of these as one thing, and it seems very perplexing.

I personally feel that if my organization and your organizations work together on some kind of educational campaign to interest deaf technological enthusiasts in the ham radio field, then progress can be made. I travel a lot and am forever besieged by frustrated deaf radio-hams-to-be. So the interest is there even on a small scale.

There is much more to the future of communications for the deaf aside from the telephone, the computer and the radio, Your world is laden with advanced communications devices. With ingenuity being present, it would be remarkable that every kind of device that you use for communications purposes will have its for-deaf modifications. This is our dream now a.nd in the years to come.