## Report of the Technology Task Force

ARRL Board of Directors 2008 Second Annual Meeting Windsor Locks, Connecticut July 18-19, 2008

Members:

Richard Norton, N6AA Kay Craigie, N3KN Paul Rinaldo, W4RI Karl Bullock, WA5TMC, Chair

## **Task Force Mission Objectives**

The current TTF was appointed by President Harrison at the January 2008 Board meeting (Minute 37) and given the task of building on work that had been accomplished by previous appointees, and bringing to the Board recommendations of policies and actions the ARRL should initiate to further technological development in Amateur Radio. To accomplish this, the current members adopted the following as a "mission statement":

The mission of the ARRL Technology Task Force is to:

- review the state of technology in the Amateur Radio Service
- assess known technology trends over the next 15 years
- examine what support is needed and ARRL's best contributions
- advise the Board on potential programs and actions to promote technology
- reach out to technical groups and to our members, individually and in forums

The TTF will report to the Board semi-annually, and communicate with members of the Board and staff as needed to pursue its mission.

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## **Interim Report**

Efforts by previous Task Force members have resulted in several innovations in Amateur Radio communications, not the least of which include Software Defined Radio technology, Digital Voice, and high-speed digital communications. These efforts have effectively been "spun off" and have achieved a life of their own. To facilitate migration to the next plane, the current Task Force has taken a fresh-start approach to allow the members to stop, look at the current landscape, and determine where to go from here. In addition to our internal discussions, we had some immediate input from outside sources, including Amateurs who are currently involved in various initiatives.

In an effort to open the door for more input, we held a Technology Round Table forum at the Dayton Hamvention, where we asked AMSAT, TAPR, and League HQ to send representatives to participate and give their perspectives, and to listen to ideas from the floor. Steven Bible, N7HPR from TAPR, Tom Clark K3IO from AMSAT, and Steve Ford WB8IMY from ARRL were kind enough to not only participate, but helped field questions and comments in the Forum, and lent outside-the-forum ideas to our process. The fact that this coincided with unveiling of the Technology Pillar provided a higher profile to the forum, helping fill the room in Dayton. We wanted to be in "listen mode", and opened up the floor for ideas as well. What we heard there, and other opinions garnered over the course of the last several weeks have certainly helped place issues on the table.

One thing we quickly realized were the two areas where technological development could have a major impact:

- 1. What can we do to re-excite current licensees?
- 2. What can we do to entice new licensees into Amateur Radio, particularly those under 30?

Obviously, item 2 is the brass ring in Amateur Radio – something everyone wants to solve. Current licensees have a number of new and exciting ways to enjoy the hobby, and much emphasis lately has been placed on emergency communications, and ways to utilize our technological capabilities to facilitate emcomm. Are there other options we should be considering?

As a result of the input and are some of the concepts we will be discussing:

- Open-Source Hardware and its use in Amateur Radio, such as TAPR's current approach to High Performance Software Defined Radio.
- Development of major Open Source software innovations utilizing the Internet as a development platform.
- Human Interfaces (so-called "whiz-bang" applications) that add greater functionality utilizing existing, as well as newer, Amateur Radio technologies.
- A generic interface standard for interconnecting commercially produced equipment without the necessity for additional interfacing hardware.
- Next-level SDR technology.

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- Protocol interconnectivity, where differing digital protocols can "talk" to each other, especially on a local basis.
- Strengthening interorganizational relationships, and utilizing the League's resources to facilitate innovations by our sister organizations.
- Deeper utilization of the League's technical resources, particularly those in the field, in a technical advisory role, as well as a diverse "think tank" for further innovations, and a development group for those innovations and for initiatives already on the table
- Emphasis on technology on the League's website, particularly since the website is currently undergoing renovation
- Use of college and university groups not only as a platform for idea development, but as an actual hardware/software development resource.
- Enhanced emphasis on recognition of those currently doing innovative work.

Of these, the latter three present immediate possibilities. First, the staff is currently working with a web development firm to upgrade the ARRL website, and technology will be a major part of that upgrade.

Secondly, with the Technical Information Specialists in the field, those Amateurs who are members of academia, the contact we have with youth through the Teacher's Institute, not to mention the resources we already have at ARRL Headquarters, there should be some way to tap into this pool of talent in a deeper, and more organized way. For example, in the previously mentioned goal of generating interest in Amateur Radio among our youth, through our contact with them through our classroom programs, we need to find a way to simply ask them for ideas for innovations that would excite them, and collate that data into something useful.

Third, we currently have in place Technical Achievement Awards that are sometimes begging for candidates. Here we would simply ask each Board member to make this a higher priority. Recognition is an incentive for one to take the time and effort to bring new concepts from the drawing board to the Amateur population. Added emphasis on these awards, from nomination to presentation, can't help but spur others to action.

Having listened, we are now at the "work" stage, and while we have a number of items on our agenda, we continue to solicit input not only from the field, but from the Board as well.

Respectfully submitted,

Karl Bullock, WA5TMC Chairman, Technology Task Force