Of elephants and rabbits

Rabbit trainers need to appreciate the past, understand the present and anticipate the future.

by Capt. John J. Cimral

Integrated command and control networks, stretching from the National Command Authority to the tactical battlefield, will be a fundamental responsibility of the Signal Corps in the future. Supporting commanders with decision aids and information distribution networks is a tremendous challenge. Each Signal soldier will be affected by the wave of technology that is sweeping onto the battlefield. Each soldier must prepare for the changes that lie ahead.

The process of integrating computer and communication systems in the Army is apt to be a tricky one. Communications will continue to be the foundation of the Signal Corps mission, but increasingly computer based information systems will supplement telephones and message centers. The Signal Corps is being called on to facilitate the integration of computer tools into the battlefield environment. This is not to say that the Signal Corps will "take over" computers in the Army. Computer systems will expand as personal tools for commanders and decision makers. Commanders and their staffs will use and tailor computer systems to their mission, and the Signal Corps should support them with hardware, software and training.

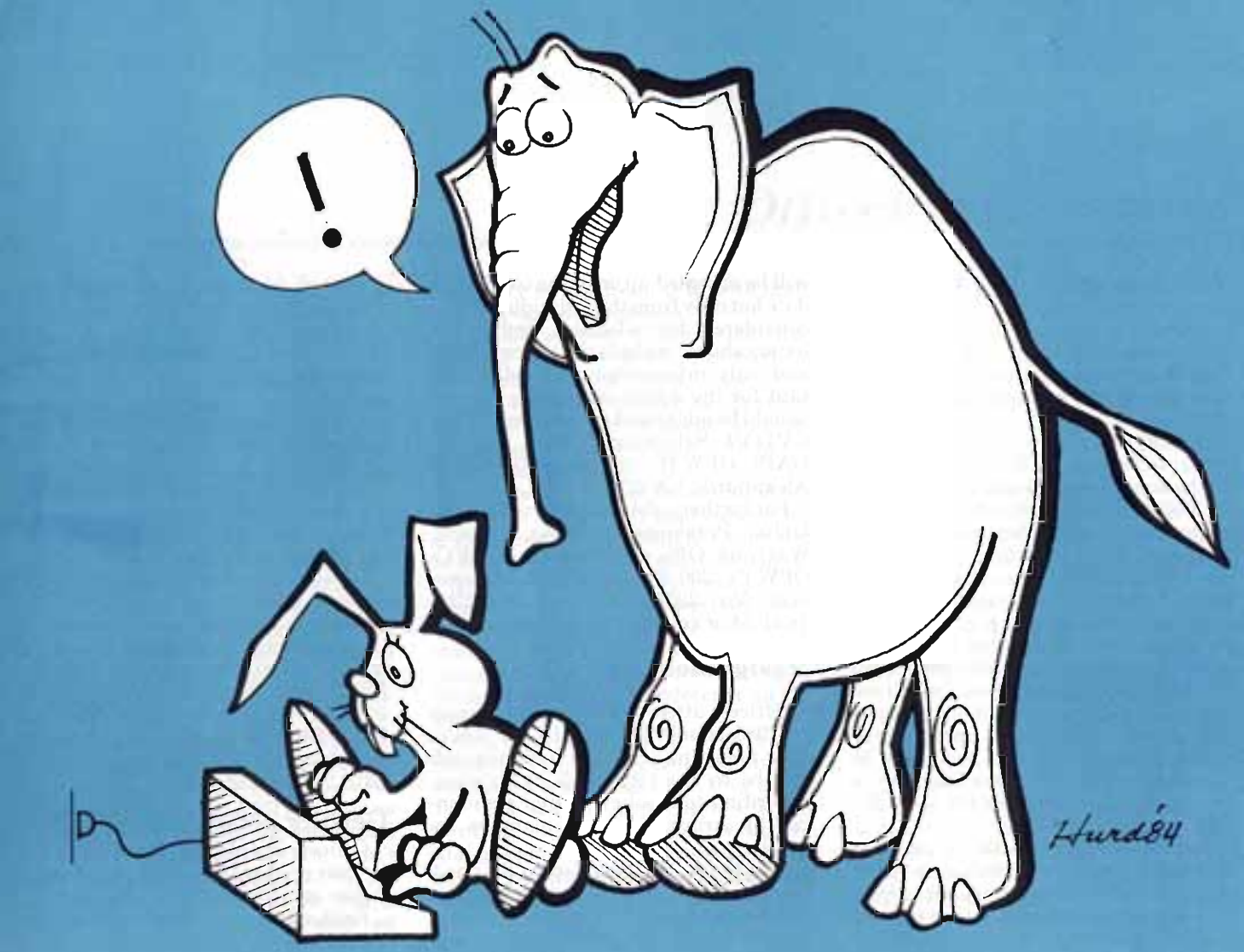
To accomplish this mission, the Signal Corps cannot deal with computer systems as though they were elephants. A few years ago computer systems were indeed like elephants. Nobody could afford to buy and maintain his own computer. Those beasts were big, costly to feed and difficult to train. Today, the elephants are seen less frequently, and rabbits are taking their places. Now individuals and small organizations can afford microcomputers. These "rabbits" multiply like crazy and can be seen everywhere. Rabbits cannot be trained like elephants. If an elephant stick is applied to rabbits, some will be killed and the others will scatter. Once the rabbits scatter, you never can train them again. The Signal Corps needs to develop rabbit trainers.

Rabbit trainers need to appreciate the past, understand the present and be able to anticipate the future. If these things can be done, computers and communications will flow together into a coherent network of command support and decision augmentation facilities.

The fact that computer systems have evolved over the last few years, does not mean that lessons from the past should be disregarded. One lesson that is relearned all too often has to do with sacrificing the good for the better. Again and again, people fail to distinguish between what is essential and what is "nice to know." Many systems never succeed because 90 percent of the effort is spent on the "nice to have" 10 percent of their capability. Often a reduced capability is sufficient, at least as a point of departure. Even more fundamentally, every automation initiative should be closely evaluated to see if automation is really necessary. Computers are not a panacea, and they carry a high overhead cost.

Another lesson that is being taught every day has to do with the value of demonstrations. "Flashy demos" are 95 percent hype and five percent substance. Concept demonstrations are great, as long as decision makers clearly understand that building a real system is often an infinitely more complex task. Commanders with little exposure to computer systems need people to help them distinguish between a facade and the real thing. The overriding consideration is always the mission and every computer tool should be evaluated by considering its effect on mission accomplishment. Technology is not an end in itself.

Commanders are constantly reevaluating the nature of the modern battlefield. Once they may have allowed "electronic elephants" to roam their territory, but today they



will not. Even though these beasts persist in their migration, they are being shot on sight. "Electronic elephants" with their large vans, large price tags, and large electronic signatures are an endangered species. It is open season on expandable vans, air conditioning and 60 KW generators. The reason is simple. These large systems cannot survive in battle. They are too easy to see, and they present too lucrative a target. Listen closely, you will hear the rabbits coming.

The Army desperately needs an organization that can train and support rabbits. The proliferation of small computer systems has already started. Off-the-shelf commercial products are being fielded at an unprecedented rate. Microcomputer systems will survive on the modern battlefield, if only because of their great numbers and ability to hide. These systems are going to need knowledgeable supporters who can integrate them with communications. Commanders need fully integrated command systems, and they need the people who can make it happen.

The challenge to the Signal Corps seems clear. Though speaking of computers in terms of rabbits and elephants seems simplistic, the reality is not. Signal Corps efforts to build robust, responsive, and flexible decision support networks are of critical importance to the Army. The success or failure of the effort may well tip the scales of victory on the Airland Battlefield.

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