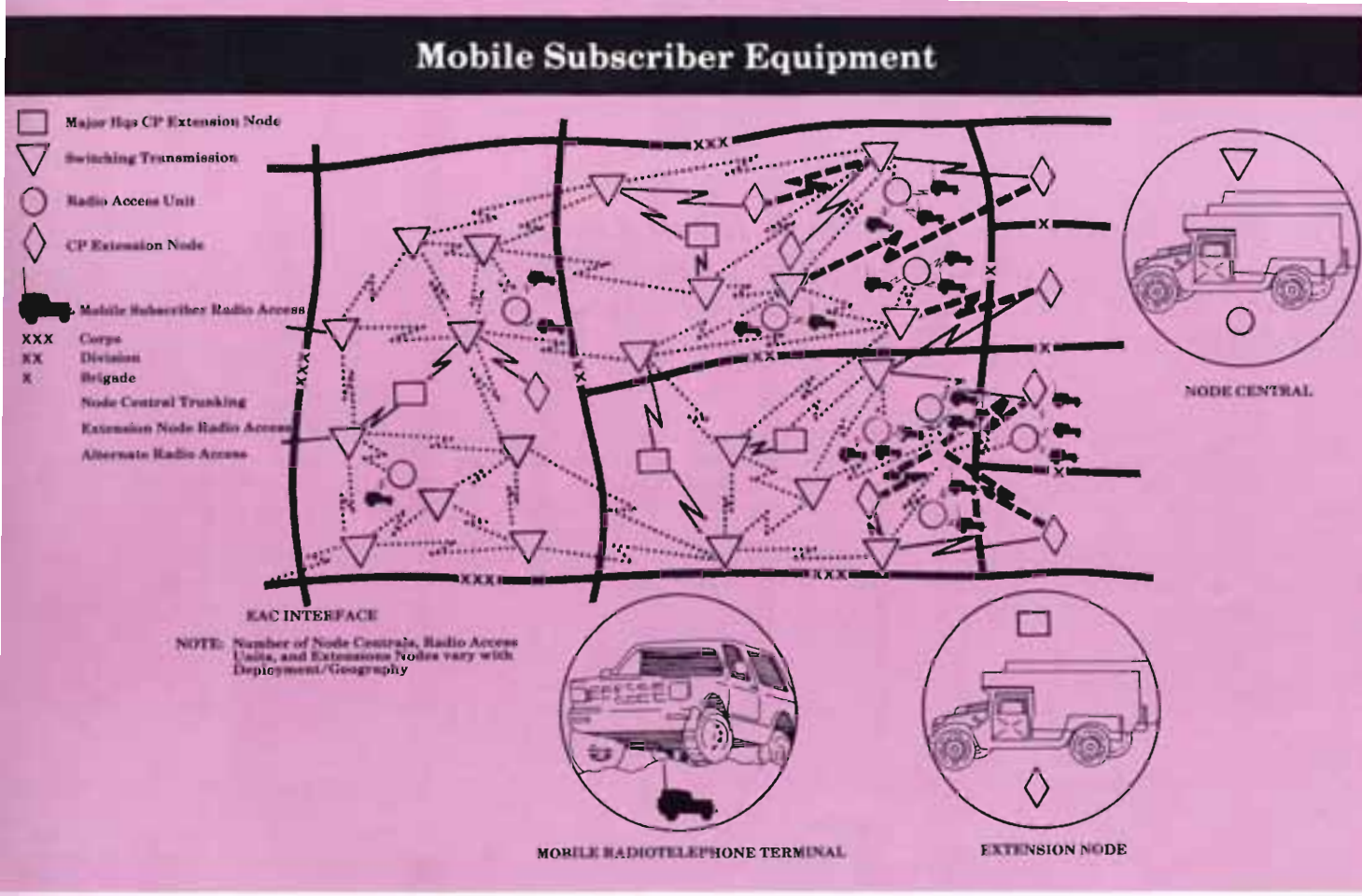

BCR + NDI = MSE

Mobile subscriber equipment: a new acquisition approach

by William E. Kelley and Lt. Col. Louis S. Martin

Signal Corps strength is expected to grow with the introduction of proposed equipment changes.

The Signal Corps leadership assembled at Ft Belvoir, Virginia, recently to discuss Battlefield Communications with emphasis on the course being followed in modernizing the Army's Command, Control, and Communications. The general consensus was that our existing course to modernize tactical communications and to meet the mandates of Airland Battle was unaffordable in both manpower and dollars. It was pointed out to the Army's leadership that the strength of the Signal Corps, already the largest single Army corps, was expected to grow even larger as a result of the introduction of proposed equipment changes.

The Vice Chief of Staff of the Army addressed the group and outlined some specific goals that the Communicators should be aiming for. For example, he stated that, "the Army should be looking for smaller, lighter weight and more Mobile Communications Electronics Equipment for the tactical forces and specifically the divisions." He also said that, "my specific goal is to get a greater capability with less people and fewer dollars."

The MSE system can provide voice and data connectivity . . .to users (mobile or stationary) regardless of their location on the tactical battlefield.

As a result of the General Officer Workshop, a task force, composed of all major players, was formed to study various alternatives to satisfying the tactical communications needs. The task force was dubbed the Battlefield Communications Review. The task force study group concluded that the communications architecture as it exists is basically sound. However, they recognized that there were alternative hardware solutions to a more effective architecture. After much debate and a lot of hard work, the task force members selected two major hardware alternatives for the Common User Area Communications Network.

The two major alternatives differed in the materiel and personnel composition as well as their tactical deployment. The first alternative (referred to as Alternative 1A and 1B) consisted of two subordinate solutions: a nondevelopmental item Mobile Subscriber Equipment (MSE) in the division, and the INTACS objective MSE in the division. Both alternatives consisted of a down sized (or slimmer) TRI-TAC materiel solution for both the corps and echelons above corps (EAC). The second alternative consisted of a nondevelopmental item MSE deployed as an integrated corps-division network with TRI-TAC deployed at EAC.

The two alternatives were then briefed at a Signal Corps general officers panel, and the second alternative was selected as the recommended approach. This alternative was chosen because of its capability to support Airland Battle and at the same time to meet the guidelines established by the Vice. The recommended alternative was briefed to all major Army commands and the Army leadership and was approved for implementation early this year.

The Mobile Subscriber Equipment System, as approved for implementation, is an integrated corps-division network of smaller, more survivable communications nodes configured in an area common users communications grid system (see figure 1). The "backbone" system integrates the function of radio trunking, switching, communications security and systems control into a composite communications system. Network users (subscribers) gain access to the system through extension nodes which are tied to the major nodes (node centrals) by some form of radio trunking. The MSE system will be capable of providing secure voice and data communications connectivity, on a discrete address basis, to users (both mobile and stationary) regardless of their physical location on the tactical battlefield.

The Army has made the decision to procure the MSE system under a nondevelopmental item off-the-shelf acquisition approach. This decision was made because the Army felt that a capability of this nature was available in the near-term and there was no need to embark on a long drawn out and expensive development program. The program manager for MSE is currently developing a request for proposed (RFP) to be released to worldwide industry for acquisition of the system on a competitive basis. The RFP is expected to be released to industry in a near future and calls for fielding of the system beginning in 1987-88.

The Signal Center is currently on a worldwide briefing tour explaining the MSE architecture and the advantages it offers to the users in the field. A detailed operational deployment of MSE will appear in a special section of the summer edition of the ARMY COMMUNICATOR.

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