Armored Artillery Communication

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Considering the Tunisia Campaign as a whole, wire was the basic means of communication. Its advantages over radio as to security, dependability, and economy in use of enlisted operators have long been recognized. In all stabilized situations wire was run to OPs but in no situation was it deemed practicable to run it to forward observers with assault companies. In all operations the infantry lines were too fluid and subject to frequent change.

The usual wire net consisted of direct lines from FDC to batteries and a second administrative line to each battery from the battalion switchboard. Likewise two lines were laid from Division Artillery CP: one to battalion FDC for fire commands and one to battalion switchboard for administration. Use of the fire control net for administrative transmission was strictly prohibited but no restriction was placed on use of administrative net for fire control. Use of radio was particularly necessary during periods of heavy shelling and bombing, when one line was out most of the time. Supervision of reliefs for operators and linemen was necessary in order to insure the availability of fresh, alert personnel 24 hours a day. Laying of wire was generally poor, chiefly with respect to slack, anchoring, and crossings of roads.

Due to the dispersion required in the firing battery it was necessary to equip each gun section with a telephone (preferably head and chest set) and lay a party line to each section. Two methods were used by various batteries. One was a party line in series: i.e., each section laid a line to the section on its left and Section No. 1 laid a line to the executive officer's post. The second method was a trunk line laid by a ¼-ton wire truck through the position, with each section laying a short line to it and connecting with test clips. Light weight, expendable assault wire was preferred for this net because it required less stowage space and frequently in sudden displacements had to be abandoned. A better solution to this problem would be a 5- or 7-set net, depending on the number of guns in the battery, of the SCR-536 hand radio. Battle experience has definitely proved, however, that some means other than voice must be employed to insure prompt receipt of fire commands above the noise of battle.

Until wire could be laid or when wire communication failed, and throughout fast-moving operations, radio was used. Continuous wave code was used very infrequently—only when transmissions over great distances were necessary. The conduct of tactical operations entirely by radio (including all headquarters up to Corps) was frequently the case in the early stage of the campaign. Never was I unable to communicate by radio, although at times it was necessary to relay through one or more intermediary nets. For example, on May 2nd southwest of Mateur a tank company commander was driven into a small defiladed area from which there was no defiladed exit, by an 88-mm AT gun which had remained silent until he was past it. Having lost six of his tanks before finding cover, one of which was his own in which he had been badly burned when it caught fire, he realized he had to neutralize the gun before he could move. He checked radio communication to his combat command HQ, which had communication with my battalion by relaying through Div Arty. He then took a portable 509 set forward on foot, located the gun, and adjusted our fire on it by relaying sensings through his Company Executive, Combat Command Hqs, and Div Arty, to my FDC. The adjustment was effective; he moved the remainder of his tanks out while we kept the gun neutralized.

The following organization of SCR-193s within the CP of an Armored FA Bn proved to be most efficient:

C.O. half-track	—Combat Command Net
Exec half-track	—Battalion Command Net
S-3 half-track	—Div Arty Net
CommO half-track	—Reconnaissance Bn Net (Monitor)

An extension loud speaker and microphone was run from the Exec radio to S-3 vehicle around which FDC was located. An extension loud speaker was run to the Exec half-track from the CommO's radio, which was in the Rcn Bn net. A short telephone line was installed from Exec vehicle to FDC, over which messages were relayed to and from Div Arty radio. This set-up was completely installed within 8 minutes after the vehicles stopped rolling, and gave the following advantages:

1. The Executive Officer, S-2, or the Adjutant, one of whom was always on duty in the CP located in or near the Exec half-track, could keep abreast of the tactical situation by having all communications available at one place.
2. Situation map, kept at CP, could be kept posted continuously.
3. Circulation within CP was reduced.
4. Shelling and bombing did not interrupt operation of the CP.
5. Traffic around FDC was reduced
6. FDC Bn Cmd Net was made available for use in the event FD net failed.
7. Div Arty Net was made available to S-3 for receiving fire missions and reporting those completed.

German radio intercept service is excellent on both FM and AM sets. You may expect them to have our PMC broken down within 7 days after it is first used; it should therefore be changed more often. An example of this occurred prior to Sidi bou Zid, when the British picked up and decoded a German message concerning their attack to be launched Feb 13th at 1500. When one unit could not get into position another transmission postponed the attack until 1600 hrs, and this too was intercepted. Both messages were forwarded immediately by British and a warning was sent by radio using American PMC. This transmission was intercepted and decoded by the Germans, who immediately changed their PMC and called off the attack.

In another case an FM transmission was acted upon immediately after its interception. The Germans had taken an Arty radio out of a captured disabled ¼-ton the previous day, and evidently passed it immediately to their artillery. An excited assistant battery executive screamed over the FD net that an enemy battery was adjusting on his position and the last round landed 300 short. Jerry immediately fired another on that sensing and when the excited officer said "That was right in the gun position," another six volleys came in right away. Jerry also rides FD frequencies when his counterbattery information is not so good, and picks up adjusted data to plot back azimuths from coordinates where his observer says our fire was falling. Obviously simple codes will pay dividends.

When radio silence is prescribed provision must be made for communication after radio silence is lifted and during the period required to tune AM sets and open nets. Some commanders have ordered radio silence for 2 days or more and then expected their AM sets to function immediately when it is lifted.