

APO 46, New York, New York

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Dear Blackie:

First, further comment on the matter of transmitting operational information between command posts. Within the Seventh Army Main CP itself, we have a great deal of difficulty in keeping our several situation maps current. Especially acute is the problem of the war room map. It is impossible to hold briefings or conferences in the TOC. Therefore, Seventh Army uses a war room for command briefings, conferences, and for use by liaison officers and other visitors to the CP. As I mentioned previously, the present matter of posting the subsidiary operations map within the CP is via grease pencil overlay, a process which is unsatisfactory in that it obliterates the TOC presentation while the overlay is being made and is both slow and inaccurate. For a variety of reasons, the presentation in the war room was seldom more recent than one hour old and usually about six hours old. When one adds to this delay time the normal lapse between plotting at Army and events at the front, one can appreciate why no one bothers to go to the war room for information - they go to TOC where they get in every ones way.

A related problem is the manner of presentation. At the present time, Seventh Army utilizes a 1-1:250,000 Wenshau map with a UTM grid overprint. This map is very satisfactory for use by commanders standing at or near the map and is not too unsatisfactory as a briefing medium. However, we have reached no satisfactory solution with respect to symbols. If one uses symbols large enough to be seen by a large group in a briefing, and if one organizes these symbols for the purpose of briefing, this process seems to produce symbolic generalizations which render the presentation useless as a medium

for command decision. Moreover, large, visible symbols are not being used in the TOC. There the level of plotting - necessitates a myriad of small scotch taped acetate symbols of various colors. The profusion of unit symbols is complicated by CBR symbols which further colors the map with vari-colored mushroom clouds. No satisfactory solution has been found for representation of fallout patterns on this type map.

What is being done at Leavenworth which might help us to solve this problem? As I mentioned, I have some ideas which I will set forth below, but I solicit your interest and assistance with any material on hand out there. As you can see, the problem experienced by Seventh Army within its main CP is even more serious with respect to its rear CP and any TAC CP it may wish to establish. The one means so far successful in posting maps at other CPs is overlays. Telephone plotting is inaccurate, slow, and subject to all the difficulty involved in shackling and unshackling locations and unit identities. The transmission of overlays, accomplished by aircraft, is subject to weather and this is a sorry state of affairs indeed.

I think I can see a good solution to the problem within the main CP. It involves taking a picture of the map in the TOC every half hour or so and producing a transparency of it. Polaroid 35mm black and white slides would seem to be the best available solution although by now some one may have a fast process color film. It would appear feasible by using filters and two projectors to get a red and blue presentation from the Polaroid process. The inclosed advertisement will show you some of the recent material on this approach. My idea would utilize these transparencies with a slide projector equipped with a zoom lens so that when discussing the situation in a particular corps or division area the image might be zoomed up to full scale size thereby permitting groups attending a briefing to see clearly the location of individual units and specifics about terrain features. If black and white were used, I would employ slides of just the posted information, obscuring the map when I took the picture. I would then sandwich the resultant slide with a color transparency made of the map without any information posted thereon thereby giving me essentially a presentation identical to the TOC map. Of course, a zoom lens is not essential because the projector might be moved back and forth to create the same effect within the range of the lens. A zoom lens would make everything much faster.

Regarding the matter of transmitting to other CPs, obviously a photographic slide could be carried a lot easier than could an overlay, and opens the possibility of equipping drones, utilizing automatic drop at destination. This would get around the weather factor. There is also a possibility that one might transmit via facimile transmission just the overlay reproducing slides at the other CP.

Surely, however, some one must be doing some thinking about those problems in R&D. I notice certain ads recently concerning a gimmick that appears to be a miniature of the Air Force area control device.

I also inclose some sketches of a device which we made here recently for the Seventh Army conference room. This Rube Goldberg permits briefers to turn their own slides on and off. Since we are using rear-projection, this is a real advantage. General Davidson is dead-set against reading breifs from a script and the absence of a script makes it very hard for operators to react when a slide should be exposed or covered. I still haven't solved our automation completely inasmuch as this system still necessitates the man changing slides. It would be quite easy to put a motor on the viewgraph roller and roll the slides by one by one. I must confess, the whole device is more amusing than useful and is forwarded for that reason.

The final inclosure is a couple of DFs published here recently regarding a forthcoming visit by Colonels Maier and Kim of your faculty. As you can see, they are attempting to accumulate copies of our publications and their visit may be worth looking into upon their return in connection with your CP study. They recently observed the winter maneuvers and probably got a good impression of the crudest arrangements in bulk over here.

Regards,