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Extracts from War Diaries and Memoranda

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(R.W. Coristine)
Lt-Col, GS
for Chief of the General Staff

File

CANADIAN OPERATIONS IN NORTH-WEST EUROPE

SEPTEMBER - NOVEMBER 1944

EXTRACTS FROM WAR DIARIES AND MEMORANDA

(SERIES 16)

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1. SMOKE SCREENING DURING OPERATION "SWITCHBACK", (FROM HIST OFFR, H.Q., FIRST CDN ARMY).

(These notes deal with the smoke screening carried out in support of 9 Cdn Inf Bde (and later by 8 Cdn Inf Bde) operations on BRESKENS from 7 Oct until 20 Oct 44.)

PLAN

With the restriction of no smoke on the assault craft (LVTs) or on the landing beaches, it was appreciated that during the initial assault, which was to take place at night, the smoke screen could only be put up with a wind which had a southerly component. The screen would have to be laid out in the SCHELDE from opposite TERNEUZEN HARBOUR at 270130 in the NW direction to 200164 with the pts of origin well to the NORTH of the channel. The presence of sand bars and the extreme difference in tide (16 ft) made it necessary to lay out a dog-leg line of emission (See Appx A for master plan). With slight variations this line would be suitable for almost any wind direction.

In order to put up this screen for a period of 12 hrs the following stores, eqpt and men were required:

(a) Three DUKWS and drivers

(b) Four storm boats and crews

(c) 300 Smoke floats

(d) One NCO and nine men as working party

(e) Three WT ops and a wireless truck.

With a wind direction from ESE through SOUTH to WSW it was proposed to use the DUKWS and storm boats to drop one smoke float every 400 yds along the line shown in APPX A and continue this for a period of 12 hrs.

A preliminary recce of the area had been carried out and it was found that the smoke craft could operate satisfactorily from the basin at the entrance to the GHENT - TERNEUZEN Canal at 270113. A partially demolished br could serve as a pier and sup ramp for both DUKWS and storm boats. Smoke HQ and the wireless truck were established in a GERMAN fortification at 265123 (see Appx A).

Arrangements were made to have a wireless link on the CRA's comd net. This established comn with both 9 Cdn Inf Bde and 1 Assault Bde RE.....

DISCUSSION

As with all ops lessons are learnt which prove of value later. Many of the troubles and problems encountered were peculiar to this semi-amphibious type of screening, and many of them were basic pts which must be borne in mind in all screening ops. The pts covered in this discussion embrace all the maj problems encountered and while some of them are very obvious AFTER the op is over they are often missed when the screen is planned and operated.

It is essential that a Tech Offr CW carry out all the planning with fmn staffs and plan and supervise the screen. He must, however, avoid getting involved in the actual screening himself. Immediately this happens control is lost and the screen suffers.

In the execution of a screen of this or similar nature involving a large area over a number of days, a smoke coy or some already organized unit with the necessary offrs and NCOs must form the basis for the smoke tps. Ad hoc orgs are to be avoided if at all possible as control and maint of the screen becomes increasingly difficult as time goes on. Problems of rations, pet, etc begin to intrude on the more pressing problems of maintaining the screen with no regular org to look after them.

The old adage "time spent in recce is seldom wasted" still holds true. In addition to the location of the screen and other associated pts, OPs, HQ area, dumping area, and routes must be considered.

Comns from OP to HQ sup P and smoke laying craft, are very important. It is suggested that this can best be done with No 18 sets and No 22 sets. Unless contact can be made with the craft laying the smoke, errors in the screen which cannot be seen by personnel on the craft will not be corrected without considerable delay.

Close liaison must be maintained with the fmn being supported by the screen. This is best done by a line between smoke HQ and fmn HQ, and having a wireless link on the bde or div comds net. Liaison trips to HQ are also necessary. It is essential that if the screen is to be operated for the fullest benefit to the fmn, Smoke HQ must be in the tactical picture at all times.

The Tech Offr CW who is to be responsible for the screening should be in on the planning at an early stage so he can appreciate the problem properly, study the enemy

situation, and be able to advise the comd on what can be done to assist him.

Experience from this and other screening ops is that the initial smoke requirement is always exceeded, i.e., the 12 hr screening requirement for this op stretched out to six days of actual tactical screening. It is therefore necessary in estimating the quantity of smoke stores, DUKWS, Essos, etc to allow for probable extension beyond the requirement originally laid down by the fmn comd. This is particularly true when working with a fmn which has never had the assistance of large scale smoke screens. Under these conditions the fmn comd does not always realize how much value a smoke screen can be to him and on finding this out, especially during a sticky op, his immediate reaction is to demand more smoke, seemingly on the assumption that it can be easily produced.

During the planning stage the fmn should be put completely in the picture as to the proposed smoke plan and methods of carrying it out. Requirements from fmn resources such as additional wireless sets, line, Coles cranes, etc should be laid on at an early date.

Alternative plans for screening which can be implemented in the event of cas to eqpt or personnel or non-arrival of sufficient special smoke stores should be drawn up. This is very important if improvised methods such as LVT-Essos are being used. In addition a relief mob source should be kept on hand as it will assist materially in closing gaps caused by enemy action or to act as a replacement source.

As time is usually a premium in mounting ops it is considered advisable to start the deployment of smoke tps well ahead of time in order to avoid any more all-night work than is necessary immediately prior to the commencement of the screening.

Dispersal of smoke stores and eqpt must be given high priority in all close sp ops. Dumping localities should be recced with a view to ease of comn and minimum interference from other activities in the area.

Storm boats are extremely unsatisfactory for any water-borne smoke laying. The engine gives continual trouble and it was found that to keep eight boats in op sixteen engines were required with two fitters working full time tuning them up. On long trips it was the practise to take a spare engine on board and if trouble occurred, change engines. Conversely, DUKWS are a first class piece of eqpt for smoke laying. They are dependable, although slow, can carry a three ton load and if used in what has been referred to as the "destroyer screen" role, i.e., 24 generators burned on the back of the DUKW, can lay a very good screen. There should be ample provision of spare parts, especially rudder post shear pins.

In an amphibious op a harbour must be found to operate from suitable for DUKWS or other small craft. This harbour, if within enemy observation, must be included in the main screen or provided with a screen of its own; otherwise interference will quickly jeopardize the whole op.

The importance and value of ample met facilities and frequent forecasts was well demonstrated. The services of the Met Offr CW were invaluable towards the efficient running of the screen. Where this offr proved most valuable, amply justifying the inclusion of such a posn in HQ 1 Cdn Army Met Gp, was in planning each night for the next day's screening.

In order to assist the Met Offr CW it is necessary to have at least two met NCOs or offrs on the spot for local and immediate observation. It is also necessary to have a wireless sec equipped with a R 107 set to listen to the corps and army met broadcasts. Daily trips to corps or army forecasting stas are also necessary to obtain a complete picture from the plotted weather map.

As with other ops complete briefing of all ranks involved is very important and always pays dividends. Included in this briefing should be a short summary of the op in which they are involved. On subsequent days all ranks should be kept infm as to what is happening and how the battle is progressing.

The Brit 50-lb smoke float is not the most satisfactory store. Approx 15% failed to function. The US M4A2 float proved to be much more reliable and easier to handle. No trouble was experienced with 24 generators.

Although the Esso generator proved a good eqpt for this type of op, i.e., mounting on LVTs, a smaller edition weighing NOT more than 1000 lbs (all-up weight) with a lower silhouette would have been more satisfactory. The reduced screening length from such a generator would be more than counter-balanced by ease of handling and flexibility of carriage. Such a unit could be mounted in a DUKW this providing a better craft for semi-amphibious ops. Tks on any new eqpt which may be designed should have equal burning times on water, derv and fog oil. This would mean a larger fog oil tk but would simplify ops considerably and **entail** less frequent replacement.

There is a definite need for a large sup of 24 generators fitted for proper series ignition with the necessary "plug-in" attachments built into the generator. It is known that these have been developed but are unobtainable in this theatre. In tactical screening such as this op it is impossible to have men continually laying the generators or maintaining a pt source as is done for AA screens. Shortage of man-power and enemy action make as much automatic functioning as possible very necessary.

It will be noted that on the first four days of screening a complete screen was not operating in the sense of a continuous line of smoke. While it is essential that no gaps occur in any screen, tactical screens in fwd areas are liable to frequent interruptions due to enemy action. It is felt that although this lowers the value of the screen the fact that some smoke pts are always burning and with normal wind swing some smoke will always be interfering with enemy observation. The importance of getting some smoke over the area regardless of density must be borne in mind. The effects of enemy action on personnel and eqpt will cause troubles and hence the normal slide rule text book types of calculations for smoke requirements, except in the early planning stages, will often fall short of what is actually used.

CONCLUSIONS

1. The value of smoke screens to protect ops from observed fire has been again demonstrated. It is noted that invariably the enemy will NOT fire if he cannot observe where his rounds are falling.

2. While screening is a def form of protection, it is doubtful if the same results could be obtained with such a low tonnage expenditure with any other type of ammunition. On

this op the average was 22 tons per day.

3. The importance of "smoke control" was shown in this op. Unless a Tech Offr CW is on the spot during the entire screening op our own tps may well be seriously jeopardized by smoke getting into their own area.

4. Tech Offrs CW must be in on the planning stages at an early date and follow the op through to its conclusion.

(J T Hugill) Maj
GSO 2 CW HQ First Cdn Army

2. ENGINEER OPERATIONS DURING OPERATION "SWITCHBACK", (EXTRACT FROM WAR DIARY 3 CDN FD PK COY, OCTOBER 1944).

INTRODUCTION

1. The period covered by this report is from 3 to 15 Oct 44 incl which takes in the stage of preparation for the Op during which time a large proportion of total effort of this Coy was made.

2. As time of warning and consequently time of preparation was short, HQ 2 Cdn Corps were responsible for estimating requirements of engr stores for the sp and for delivering the stores to a fwd pt in the div area.....

3. A list of stores provided by 2 Cdn Corps is given in Appx 'A'. (See below p. 6)

PREPARATION FOR OP

4. After a preliminary O Gp held by the CRE on 3 Oct 44 to put Coy comdrs in the picture, the OC and OC Stores Pl left for 2 Cdn Corps. From SORE Stores at HQ 2 Cdn Corps a complete list of Stores available for the op was obtained. An arrangement was then made with the OC 8 Cdn Fd Pk Coy for handling of engr stores. In brief the Corps Fd Pk were responsible for dumping the stores at their Adv Dump in the div area and from this 3 Cdn Inf Div Engrs were to draw on authority CRE 3 Cdn Inf Div. This arrangement eased the task of the Coy as it virtually meant that the Corps Fd Pk were relieving the Coy of the responsibility of running a main dump and leaving the Coy free to est an adv dump SOUTH of TERNEUZEN.

5. On the following day, 4 Oct 44 Stores Pl Offr recced the site for the adv dump while the OC completed arrangements for drawing of stores from the Corps Adv Dump. Also after conference with the CRE 3 Cdn Inf Div the OC was able to contact the br dump which had been est bv 147 Br Coy RASC and inform them of all known div engr br requirements. At that time arrangements were made with the Br Coy that Fd Coys would draw their requirements direct from the Br Coy without ref to any authority. This relieved the Fd Pk Coy of any responsibility of controlling bridging outside of their own div set.

6. On the evening of 4 Oct 44 the list of stores required for the adv dump for 9 Cdn Inf Bde was drawn up by the CRE. On 5 Oct 44 the move of stores from the Corps dump to the div dump was commenced. Originally 1 60 CWT and 6 other tippers were used but as this fell far short of the requirements it was decided to off-load the br pl (13 vehs) 6 GT lorries were obtained from corps fd pk to move storm boats and Evinrude motors.

7. The adv dump was completed by 2300 hrs 5 Oct 44. The Br Pl off-loaded their original eqpt and returned to the corps dump, reloaded by 0300 hrs 6 Oct 44 and were available to Fd Coys at that time. Again GT tpt was borrowed from the Corps Fd Pk and a total of 10 were loaded with additional Stores by 0600 hrs 6 Oct 44....This gave a total of 25 vehs of assorted stores.... It is pointed out here that the original intention of having 8 Cdn Fd Pk Coy control the main dump did NOT hold and the div br Pl in effect became a stores Pl operating the main dump

8. By first light on 6 Oct 44 D'7 one tptr was delivered to 18 Cdn Fd Coy and the two D'4s on one tptr were available at the main dump for the use of 6 and 16 Cdn Fd Coys.

EVENTS DURING OP

9. From the 6 to 15 Oct 44 the mov and issue of stores was the principal function of the Pk. The Coles Crane was sent out on two occasions to 16 Cdn Fd Coy, once for assisting in unloading and constr of the close sp raft on the LEOPOLD canal when it was NOT used and once for assisting in the unloading and constr of two class 40 rafts at TERNEUZEN. The remainder of the time it was employed for unloading stores, stormboats etc at the adv dump.

10. The D'7 was NOT used but the two D'4s were employed by 16 Cdn Fd Coy for preparing the approaches to the rafting site on the LEOPOLD canal.....

REMARKS

11. Due to the peculiar nature of the Op and the limited time of preparation it is difficult to criticize the rather abnormal use of certain of the coys resources. The emp of the br pl as a stores Pl was quite necessary and worked well but it is NOT recommended as a gen practice as it means the div br set is NOT on immediate call which it should normally be.

12. The decision to use the Coles Crane for other than normal use for lifting stores must be carefully considered. It may be a rather an attractive piece of eqpt as a wk saver to the Fd Coys but on the other hand most of the stores handled in this Op were difficult to load and unload and the crane was invaluable to the Coy. Without it twice the time would have been taken in loading and dispatching certain eqpt.

13. It is appreciated that it is desirable to have the complete dump stock of op stores on wheels for immediate call. However, it is a great draw on tpt resources and it is suggested that in future ops, a pool of tpt be held available loaded primarily with high priority stores and then to be used as a shuttle service for remaining stores as required.

(TM Kingsbury) Major
OC 3 Cdn Fd Pk Coy RCE

APPX 'A'

STORES PROVIDED BY 2 CDN CORPS

FOR USE OF 3 CDN INF DIV

Chespale 4' 6"	Rolls	800 (20 Lorry loads)
Sommerfeld Track and Accessories	Rolls	100 (12 Lorry loads)

Corduroy Poles	2000	(20 Lorry loads)
Dimension Timber		(30 Lorry loads)
Flex boards	36	(2 Lorry loads)
Armco culverting 24"	500	(2 Lorry loads)
4" Staples	4000	
SWR for tieing down corduroy		

SECOND REPORT OF 'SWITCHBACK'

3 Cdn Fd Pk Coy RCE

GEN

1. This report covers the period from 16 to 28 Oct 44 incl. During this period the emp of the Div Br Pl covers most of the Coy activities outside of routine issue of stores and wksp work. The body of the report however will deal with two main subjects, namely bridging and stores.

BRIDGING

2. The Div Br Pl has been called out four times during this period and the eqpt has been used wholly or in part on three occasions. Several points in the emp of the pl have been brought out and are outlined below.

(a) The Pl should NOT be called for until the coy using the eqpt is certain that work can be started. Nothing is achieved by keeping the Pl at an Rv hours before the Op commences.

(b) It has been forcibly pointed out on several occasions that the party building the br required a storeman (NCO if possible) to supervise the layout of Br stores and check their issue to the working party. This procedure must be followed otherwise small stores will inevitably be lost. To assist the Storeman the dvr and spare dvr of the Bridging vehs should supervise the unloading of their vehs and make sure that all stores are off the lorry. Also it is recommended that only one veh be offloaded at a time, especially at night. The extra time required is a good investment for rapid br constr. By this means it should be easy to obtain a good stores layout with the storeman knowing where all items including the smallest ones are located.

(c) It should not be below the dignity of fd coy personnel to take advice from the offr or NCOs of the Br Pl in either the matter of stores layout at the br site or the system of unloading vehs.

(d) In one of the br building ops, launching links were missing in one of the accessories lorries which resulted in the br constr being held up for over an hr while replacements were being obtained. In future when at all possible all loadings and in any case accessory veh loadings will be physically checked before eqpt is despatched. Early notification of impending ops by CREs staff will assist greatly in this matter.

(e) To avoid searching for br surfacing after a br has been erected the Div Br Pl will in future carry enough 1 in false decking for an 80 ft. br as part of its standard loading.

STORES

3. For this op special stores incl chespale and sommerfeld track were supplied by 2 Cdn Corps. The sup of these stores is very limited and it is extremely important the fd coys either return such stores that have NOT been used to the Fd Pk Coy or notify the Fd Pk Coy of their location. This procedure should also apply to other engr stores that the coys can not carry.

4. Although this point has been covered many times before it was again clearly shown the Evinrude motors for storm boats must be operated if at all possible by personnel trained in their use and NOT by any handy person. It was necessary in this Assault crossing by 9 Bde to maintain a crew of fitters to constantly check the motors and even so they could not keep all motors in shape. If available 50% res motors should be held as replacement.

(TM Kincbury) Major
OC 3 Cdn Fd Pk Coy, RCE

3. LESSONS LEARNED DURING OPERATIONS ON ZUID BEVELAND (ACCOUNT BY BRIGADIER F.N. CABELDU D.S.O., E.D., COMD, 4 CDN INF BDE, GIVEN TO HIST OFFR 2 CDN INF DIV, 14 NOV 44).

A number of valuable lessons were learned by 4 Cdn Inf Bde during the operations to clear ZUID BEVELAND:

(a) Heavy armour is almost useless preceding infantry where movement is restricted solely to a few roads;

(b) The combination of a barrage and timed concentrations worked well.

(c) Heavy concentrations, closely followed by infantry, permit the latter to seize objectives at night and mop up quickly afterwards;

(d) A great many strong-points were overcome at night, with few casualties, when the latter would have been bad if attacks had been made in daylight;

(e) The principle of attacking and re-attacking strong-points with fresh troops before the enemy has time to fully reorganize was confirmed;

(f) The enemy proved to be very sensitive to infiltration tactics and surrendered fairly readily when attacking troops got through and behind them;

(g) It is possible to build up a bridgehead over a Canal fairly quickly with "Weasels" which, save for what appeared to be an inherent defeat in the clutch, can be driven by drivers of wheeled vehicles with no previous experience of tracked vehicles. Due to this "clutch trouble" there were 5 casualties to "Weasels", during the operations of 4 Cdn Inf Bde on ZUID BEVELAND, and it was thought that these probably occurred because the drivers were not used to tracked vehicles;

(h) The value of exploiting with patrols, even though the main force was halted for a rest, was proven once again;

(i) A brigade study group, which functioned for a full day before operations began on the peninsula, had dealt with

all problems that actually arose during the advance to the BEVELAND CANAL.

4. SUMMARY OF ACTIVITIES NO. 1 TEAM GUNNERY INSTRUCTIONS C.A.C., (EXTRACTS FROM WAR DIARY NO. 1 TEAM I'S. G. C.A.C., SEPTEMBER, 1944).

1. The Team has now been formed as a unit for six weeks, but has been prevented from operating in its desired capacity for more than half this time because of initial lack of vehicles and equipment. During the whole of the period the Team has spent a week with the 27th Cdn Armd Regt, one with the 10th Cdn Armd Regt and the balance of time available has been placed at the disposal of fitters and rfts at Forward Delivery Squadrons.

2. The actual work time available with these units has been foreshortened by circumstances of weather and the advent of unforeseen moves. However, sufficient has been accomplished to form tentative conclusions; in reference to such

(a) as the services which may be rendered by an I's. G. Team to a Field Unit.
(b) as to what factors affect the eventual receipt and employment of tank weapons by Forward Echelons and lastly,
(c) the general status of gunnery ability and knowledge of the Field Gunner. These will be dealt with in turn in the following paragraphs.

3. A Services of an I.G.

The Team was very well received by units, particularly Commanders, Crew Commanders and Gunners. Group and individual instruction was conducted satisfactorily and the latter found most effective. Instructors progressed from tank to tank contacting members of each crew individually, and in this fashion were able to assess the performance and state of armament and training. In so far as time permitted deficiencies in both were remedied immediately. This type of instruction found the gunner most receptive, however the time element does limit the personnel which can be contacted. This is a disadvantage, but overruled because group instruction is not practical in the field until such time as a definite period of some 10 days to two weeks is alloted to a formation for instructional purposes. In the meantime, all instruction has had a very definite value. The mere fact of contact between I's. G., crew and Troop Leaders etc., has served to make the latter conscious of a source of hitherto unobtainable information in the field and they are now also aware that Gunnery Gremlins can be relegated to I's. G for disposal.

B. Main Armament

(I) 75 mm. M-3 Gun

This weapon is considered largely satisfactory, but an improved A.P. performance is desired. Mechanical defects are slight. Solenoids have given trouble through maladjustment and occasionally from over-heating. Improper adjustment of the breech closing spring has resulted in breakages or malfunction. It is concluded that, other that other than for an increased mechanical efficiency of the solenoid, that further instruction in correct adjustment will remedy faults.

(II) 17 Pdr.

Here again the weapon is considered as satisfactory.

The new 17 pdr. low velocity HE. is not yet available to the field and is much to be desired. Mechanical defects, other than sluggish action and misfires, have not been reported. Stripping and assembling of this weapon is very little known and the sluggish breech action is attributed directly to improper stripping. Modifications in stripping which we now teach will remedy this fault.

Misfires occur frequently but are the result of a collection of luting withdrawn from the priming cap into the firing bush by the striker. The striker is then unable to go fully forward. It is seldom practical for the gunner to remove this luting from the cap upon stowage of ammunition, but if this is done, misfires will cease. An effective modification is required and it is suggested that this take the form of either:

(a) a vent from the firing bush chamber which would permit escape of the luting, or
(b) a lengthening of the striker.

Instances of incomplete extraction and ejection are fairly frequent. Here it is suggested that the run out valve adjustment should be increased from 1/8 to 1/4 turn.

(III) Auxiliary Armament

Brownings on the whole function very well except for a universal tendency in the field to exhaust them prematurely through improper fire control. Here again solenoids are the source of some trouble because of a faulty bracket which does not allow satisfactory contact between it and the firing lever. A quick remedy is the insertion of a Browning spent case, cut 5/8 of an inch from its base, and inserted above the solenoid. This is a ready cure, but the solenoid supporting bracket should be modified at source for more perfect adjustment.

Cupola anti personnel weapon - This seems to be in popular demand by all Crew Commanders. For this purpose the 30 cal. Browning is much preferred to the 50 cal. which is too difficult to handle.

Browning 30 Cal. Safety Latch - This is eliminated on types of late manufacture. Gunners desire its return.

A certain number of instances where separated cases and feed stoppages have occured are known. It is felt that as the new adjustments are passed to the field these stoppages will cease.

(IV) Traverse and Elevation

Unit fitters are unpracticed in adjustments required to eliminate backlash from elevation and traverse gears. There is an apparent reluctance to handle work of this nature and it is thought that these fitters have had insufficient scope within the unit with this type of work to give them sufficient experience to attempt these adjustments with confidence....

(v) Gyro Stabilizer

Unit gunners and fitters are not properly qualified to use or maintain the gun stabilizer. This situation is the result of a school of thought which has, until the present, discredited the Gyro as an effective means of

stabilizing the gun. Current experience in Normandy and Italy, is that whenever was found a combination of properly adjusted Gyros and well informed gunners, the stabilizer has proven a worthy device not only for firing on the move but also at the halt. Serious consideration must be given the training of fitters and gunners in the use, adjustment and maintenance of this valuable component.

(VI) Sighting Devices

(a) Periscopes - Apart from lack of manification, and other well known defects, the chief conplaint arises from obscuration of vision due to rain. We have to date found no effective means of disposing of this, but a remedy is urgently required. Peri-telescopes are largely used here because of the short range at which targets are engaged in France and Belgium.

(b) Clinometers and Quadrants - These are coming into use quite generally and crews do understand their usage. However, these are not in adjustment upon arrival at units and unit personnel are incapable of making the necessary adjustments. This can be remedied by training, eventually, of the concerned personnel, but in the meantime these should be accurately tested and adjusted at T.D.R.

(c) Azimuth Indicators - These are not included in all vehicles and little is known about their use and application. Rfts should be taught use and application before arrival in the field. It is understood that tanks equipped with semi-indirect and indirect fire equipment of this nature are in short supply at home training establishments but it is thought quite feasible that the instruments themselves could be obtained for instructional purposes.

(d) Swabey Sights - This type of sight, or even more so a double bladed vane sight, is very much used and desired by Crew Commanders. However many instances still occur in the Field where the obsolete blade type is the only sight on the tank. This deserves immediate correction.

(VII) Ammunition

A requirement is strongly felt for a type of smoke which can be accurately placed at extremely short range. The present type M-89 is definitely unsatisfactory. It is suggested that means be taken immediately to supplant the American M-89 type in favor of British 75 mm Base Ejection Smoke Shell. While it is not known whether this shell is accurate at ranges less than 800 yds, it is definitely accurate at all ranges from 800 to 2500 yds.

The employment and adjustment of the M-54 fuse is not generally known. As a safety factor use of the M-54 fuse should be delayed until units are properly informed as to its adjustments.

30 Cal. Browning belts are frequently badly filled. Closer inspection at belt firing points is urged.

A.P. incendiary is urgently required.

(VIII) Gunners Tools and Spares

At destination many tanks are found short with respect to tools and spares. This is particularly so in the case of the Sherman V Cs. Tank delivery Regiments, who are responsible for stowing these vehicles prior to delivery to

Forward Delivery Squadrons, place what tools and spares they have on hand but these seldom are in sufficient supply to meet the required scale. It is clearly a case of a shortage of tools and spares which should be remedied at source.

(IX) Firing-In

The necessity for firing-in is all too obvious, however no facilities are available for fighting echelons to carry this out before entering into action. A.R.R. have insufficient staff to fire in guns at forward squadrons and the result is usually that fighting elements use their first few rounds to prove T & A whilst actually in battle. The over-all result is that the average gunner conceives a T & A to be satisfactory and is quite content if he can merely hit a tank or target anywhere. This can not be considered good enough and greater accuracy should be insisted upon. Aside from training the gunner in the value of firing-in, the solution seems to lie in providing Fwd Del Sqns with sufficient personnel and facilities to ensure that guns are properly fired-in prior to despatch to Fighting Echelons. This is of course in default of being able to provide the latter with the same facilities.

4-c. Generally speaking the gunner in the field has a quite adequate knowledge of tank gunnery. However the knowledge is largely theoretical and lacks much in practical application. The obvious inference is that he still is the product of instruction based on the use of obsolete and obsolescent equipment. Those new pieces of fire control equipment which are now being issued in the field are unknown to him. He frequently arrives with no practical knowledge of the 75 mm gun, he almost invariably arrives with no knowledge of the 17 pdr and of course has no intimation of the use of application of such things as the Azimuth Indicator, Swabey Sight, Clinometer, Quadrant, etc. As mentioned above, these equipments are not always found as part of a completely equipped, up-to-the-minute tank, but they can be obtained separately and must be included in training syllabus at home establishments.....

"W.R. Pacaud Maj."
INSTRUCTOR GUNNERY,
C.O. No. 1 TEAM I's G., C.A.C.

5. MAINTENANCE OF COMMUNICATIONS DURING ADVANCE IN ZUID BEVELAND (ACCOUNT BY LT-COL J.W. JOHANSON, O.C., R.C. SIGS, 2 CDN INF DIV, GIVEN TO HIST OFFR, 2 CDN INF DIV, 23 NOV 44).

1. R.C. Sigs, 2 Cdn Inf Div, continued to supply communications when and where desired, during the northern advance from the ANTWERP area and, thereafter, on the ZUID BEVELAND peninsula. While 5 Cdn Inf Bde and 6 Cdn Inf Bde was securing a bridgehead over the ANTWERP-TURNHOUT CANAL (24-29 Sep 44), a complete "circuit of communications" was established that crossed the Canal NORTH of WESTMALLE. The "power him" on lines began to diminish but it was still impossible to use single cable. All "power hum" ceased after WESTMALLE. Communications were required to both 1 Brit Corps and 2 Cdn Corps as the Div was under the former for operations only.

2. Some difficulty was experienced between 6 Oct and 9 Oct 44 due to a shortage of cable, which was attributed to lack of rail transportation in the rear area. Line was laid up the main axis through PUTTE, where detachments came under spasmodic mortaring and shelling, to WOENSDRECHT. It was necessary to build up all the lines due to extensive traffic including tanks on the main road.

3. On ZUID BEVELAND, no trouble was experienced until the KRUININGEN area was reached. Here, difficulty was experienced in getting lines forward due to the fact that only one road was available and it was congested with vehicles... Ultimately it was possible to get the line across the Canal after a lengthy argument between the det comd and the Provost at the bridge. In this connection, it may be noted that the substitution of cars, 5 cwt, for 15 cwt vehicles used by cable detachments, has proved a distinct advantage, although the former cannot carry as much cable.

4. During the advance WEST of the BEVELAND CANAL, progress was hampered by the conditions of the roads and the prevalence of mines. Because of the latter, three vehicles were lost and six casualties suffered, near HEER ARENDSKERKE on 28-29 Oct. At this time, it was necessary to push the lines forward with only a visual check for mines. Nevertheless, by 28 Oct, the cable detachment from 2 Cdn Corps, was up to the leading brigade.

5. While line had been laid NORTH of ANTWERP, through WOENSKDRECHT, and then westwards along the peninsula, the existence of a submarine cable across the Schelde estuary had been known. As H.Q. 2 Cdn Corps remained near GHENT, throughout operations on ZUID BEVELAND, it was decided to check the northern terminal of the submarine cable in an attempt to shorten the line of communications. A crew was sent to WAARDE, on the southern shore of the peninsula, and it was found that the terminal had been cut by the enemy. Some time elapsed before the cable dried out sufficiently to be of use, but eventually this line was opened and more direct communication was established with H.Q. 2 Cdn Corps by this additional means.

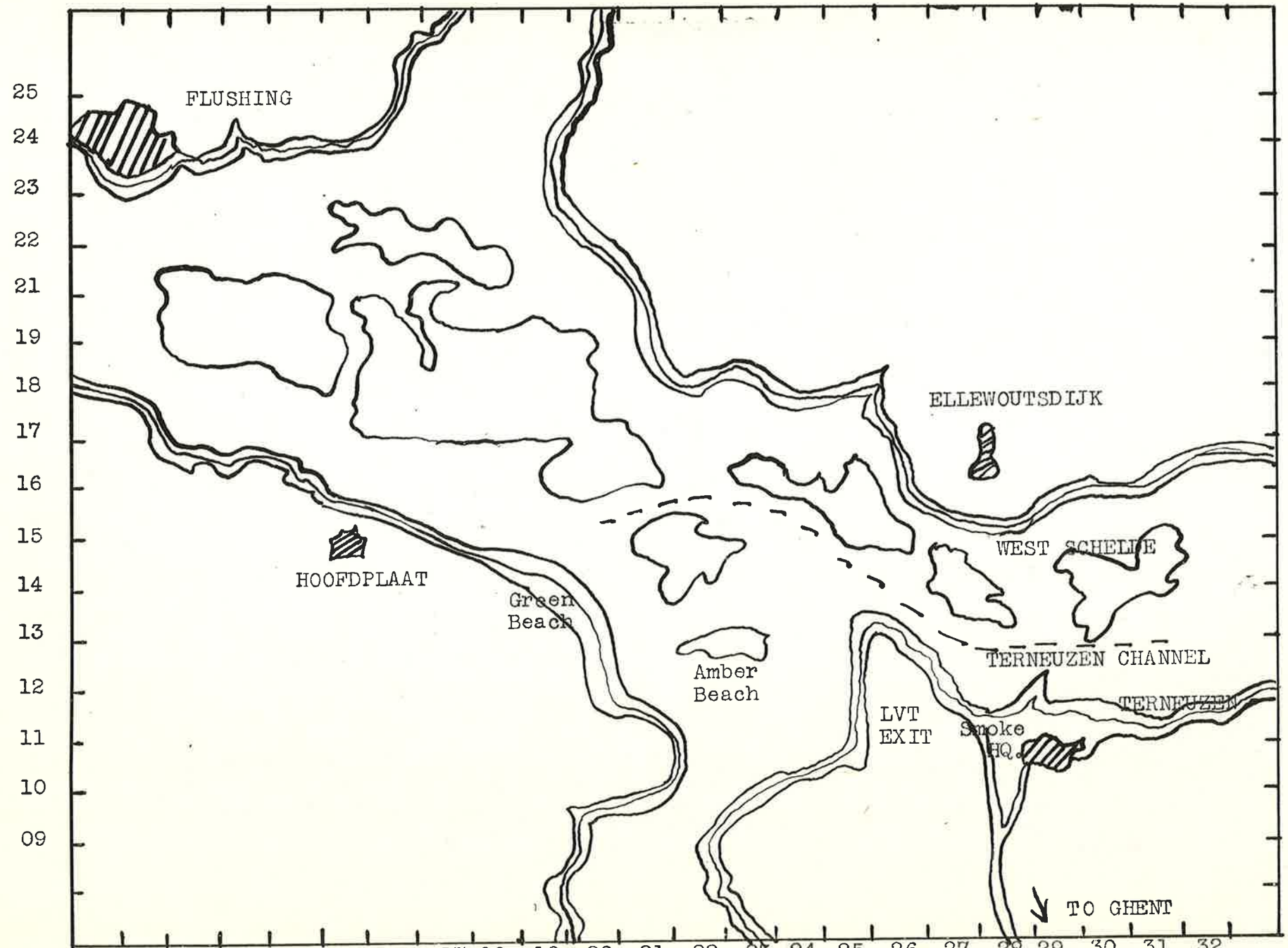
6. Contact with "BURNS FORCE" (consisting of 156 Inf Bde, with Canadian elements, including 5 Cdn Fd Regt and 7th Cdn Fd Coy, under command) was established at HEINKENSZAND. Subsequently, a Brit Div took over most of the lines which R.C. Sigs had erected. In the NORTH, communication was maintained with the force that captured

NOORD BEVELAND, through the Rover set of O.C., 8 Cdn Recce Regt, which was put on the command net.

7. German cable followed the road through the centre of the ZUID BEVELAND peninsula, but it was cut in too many places to be of any use. The enemy had a very extensive system of line communications in this area. Trenches and outposts were interconnected by line, in many cases underground. Most of the cable used by the enemy was comparable to our D-3 in size with a very tough insulation to withstand weathering.

8. Before leaving England, arrangements were made for R.C. Sigs and all non-sigs units of 2 Cdn Inf Div to carry double the amount of G1098 cable as well as two RCASC lorries of mixed cable and this was an important factor in the maintenance of communications during the early period of the campaign. During the entire period of operations to 23 Nov 44, in the north-western theatre, 5,000 miles of line had been used.

APPENDIX "A"



Line along which points of exlssion were laid ----------