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CHAPTER IV

WHAT TO DO WHEN A UXB HAS BEEN DISCOVERED

SECTION 22

INTRODUCTORY

Note- The emphasis in this chapter is on the unexploded HE bomb, but much that is written is also applicable to the missiles described in chapter V. This is particularly the case with Section 25 - Reporting, which is applicable to all forms of unexploded air-warfare missiles.

2201. Study of the effects of explosion of HE bombs in the previous chapter showed that damage and casualties are mainly caused by blast and earth shock and to a lesser extent by bomb splinters and flying debris (flying glass being a particular menace to personnel). It has also been shown that the size, type and situation of a bomb have a direct bearing on the area over which such casualties and damage may be expected (the danger area).

2202. Once the local commander has decided that a UXB exists which may still be capable of functioning, he must take action at once. The expert should, by all means, be summoned if possible but a ticking clock will not await the arrival of the bomb disposal officer. The immediate problem is how to minimise the chance of explosion and how to minimise the dangers, should explosion inadvertently occur. The solution is provided by a combination of the following measures:

- a. Prevention of disturbance of the bomb.
- b. Movement of personnel, vehicles and transportable equipment from the danger area (evacuation).
- c. Reduction of the danger area when evacuation is not possible e.g. for static installations, tactical positions, bridge abutments, etc (protective works).

2203. Whatever evacuation or protective measures are adopted, action must be taken to prevent the bomb being disturbed. Its position should be clearly marked. If the bomb is on the surface it should be roped off to prevent interference and in some circumstances it may have to be guarded. The vibration from loud bangs, machinery and road and rail traffic may set off sensitive anti-disturbance and clock-work fuzes. In the 1939-45 war, such sources of vibration had to be excluded within 400 yards of German UXBs containing

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clock-work long delay fuzes. The subjects of evacuation and protective works are discussed in section 23 and 24.

2204. Since the problem ceases to exist as soon as bomb has been identified as harmless, made safe or disposed of (an Engineer, normally Bomb Disposal unit responsibility), the local commander will immediately report the presence of any known or suspected UXBs. The subject of reporting is dealt with in section 25.

2205. It is obvious that there can be no cut and dried solution to cover every incident. Each must be treated on its particular merits, depending among other things on:

- a. The type and weight of the bomb.
- “ b. The probable fuzing (particularly whether a long delay fuze might be fitted).
- c. The position of the bomb.
- d. The nature of the locality (built-up or open).
- e. The tactical situation and war potential involved.

In the absence of specific instructions from higher authority the local commander will use his own discretion and commonsense in the action he initiates. At home or in non-operational areas abroad where a civil defiance organization is operating, he will work in close co-operation with the civil authorities but this must never be allowed to divert him from his basic responsibilities as a military commander, be the section leader or commander.

2206. In the following sections in this chapter reference is as made to buried and unburied bombs. A bomb is defined **buried** when its upper surface is at least twice the length of the bomb body below ground level. All other bombs are defined as **unburied**. In practice these definitions are difficult to apply and commonsense must be used. In general, a bomb not fitted with a parachute, entering average ground at an angle of 45 degrees or more to the horizontal will become buried.

2207. In table headings in this chapter the word bomb refers to HE bombs of all types and also, unless otherwise indicated to war heads and sea mines. War heads should be treated as blast bombs if thin walled and penetration bombs if thick walled. If in doubt, assume to be thin walled.

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2208. The extent of the precautions to be taken is often related to the weight and type of bomb. Method of estimating the weights and types of buried bombs are given in sections 13, 17 and 20. Having identified the type (Sec 7) the weight of bombs on the surface can be estimated from the measurements (Table 1).

2209. Flying glass is a major cause of casualties and damage while a building devoid of windows ceases to be weather proof. The danger of breakage can be minimized by opening windows during the danger period. Furthermore, if windows are open when a building is affected blast (Sec 10), the pressure inside can become the same as that outside. The main structure of the building is then less likely to be seriously damaged. It is important that all the windows should be open, for during the section phase the strain is applied to all sides of the building (Fig 17s).

2210. The information in sections 23 and 24 of this chapter is based on the experiences of weapons of the 1939-45 war. Considerable modification of methods and distance may be required in the future but the figures given here will form a basis for those commanders who are not within easy reach of expert advice.

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