Ministry of Defence:

Combat Identification

executive summary

1 Combat Identification refers to the means by which military units distinguish friend from foe during operations. Combat Identification enables them to improve combat effectiveness and minimise the risk of fratricide, which is the accidental destruction of friendly or allied forces.

2 The Ministry of Defence (the Department) defines Combat Identification as comprising the following three elements:

■ Situational Awareness: Increasing combat effectiveness through the positive identification of friend from foe via a timely, high fidelity common operating picture.

■ Target Identification: Protecting friendly forces from inadvertent attack by their own side (or, at least, minimising the risk of its occurrence) through the positive identification of all potential targets in the battlespace.

■ Tactics, Techniques, and Procedures: Developed to enhance joint Situational Awareness and Target Identification capability because no purely technical solution exists.

3 In recent years, a number of factors have come together to increase the United Kingdom's need for an effective Combat Identification solution. There is an increasing reluctance on the part of the public to accept casualties in warfare which has drawn attention to the issue of fratricide. In addition, the United Kingdom's three armed services increasingly work together in joint operations with each other, and in coalition operations with a number of allies, which complicates the task of command and control in the battlespace. Finally, the increased complexity of warfare further illustrates the need for a Combat Identification solution that improves combat effectiveness and reduces the risk of fratricide.

4 This report assesses whether the Department has developed an approach to Combat Identification that considers the risk of fratricide alongside the need to maintain or improve combat effectiveness. Combat effectiveness is not an abstract good to be pursued for its own sake but is the best way to achieve military success in the shortest possible time thereby minimising all casualties, whether from enemy or friendly fire.

**Photograph:
Javelin Surface to Air Missile**

5   This report examines:

■   Combat Identification within the context of the changing nature of modern warfare.

■   The structures that the Department has put in place to deliver a capability for Combat Identification since the Strategic Defence Review of 1998.

■   The way in which the Department is taking forward its strategy for Combat Identification.

6   We found that:

■   The changing nature of modern warfare means that Combat Identification is complex, and that there is no simple solution to reducing the risk of fratricide.

■   Since the publication of the Strategic Defence Review in 1998, the Department has created structures that are now beginning to facilitate the delivery of a Combat Identification strategy and capability.

■   The Department is taking forward its strategy on Combat Identification, but more work is required to ensure that the strategy is implemented in full and in tandem with the requirements of NATO and other potential coalition partners.

There is no simple solution to reducing the risk of fratricide and improving combat effectiveness

7   History shows that fratricide appears to be an inevitable risk in warfare. It has for many years accounted for between ten and 15 per cent of friendly casualties during operations. Although the subject of fratricide has become more of an issue since the end of the Gulf War, the Department has not conducted wide-ranging analysis to assess the challenges of Combat Identification in joint and coalition operations. (Paragraphs 1.4 to 1.9.)

8   The Department continues to plan for a wide range of operations at all levels of conflict intensity. Contemporary operations are characterised by a less clearly defined battlespace, which is compounded in complexity by the increasingly joint nature of operations. The need to conduct joint operations requires adequate command and control measures particularly at the interfaces between the environments where the risk of fratricide is greatest. Differences in the approach of each service to Combat Identification are a consequence of the particular

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concerns of their operating environments, and make it difficult to have an all-embracing strategy. Achieving adequate tempo in operations is essential to enhancing the joint force's combat effectiveness. (Paragraphs 1.10 to 1.20.)

9   Coalition operations potentially further increase the risk of fratricide and most, if not all, future British operations are likely to be of such a nature. Fratricidal incidents between participating nations can endanger the cohesion of coalitions. Given this, there is a need to ensure that coalition forces can operate effectively with each other ("interoperability"). Achieving effective interoperability can be a particular problem when operating with members of an ad hoc coalition or with nations which have recently joined an alliance such as NATO. To achieve effective interoperability, it is necessary to address all aspects of working together, which includes examining doctrine and training as well as ensuring that equipment is interoperable. (Paragraphs 1.21 to 1.26.)

10   There have been instances where the utility of important military equipment has been reduced in effectiveness to reduce the risk of fratricide. It is therefore important to ensure that where appropriate business cases include an appraisal of Combat Identification when acquiring equipment. There are less tangible, but equally important, consequences arising from the risk of fratricide. Morale needs to be maintained by ensuring that appropriate steps are taken to prevent fratricide. Moreover, public opinion and political sensitivity must be taken into account at a time when the media's reporting of operations is widespread and immediate. (Paragraphs 1.27 to 1.29.)

The Department has created structures that are now beginning to facilitate the delivery of a Combat Identification strategy and capability

11   The Strategic Defence Review and the NATO Defence Capabilities Initiative have provided the Department with the impetus and structure to produce a Combat Identification strategy. The 1998 Strategic Defence Review has focused the Department's emphasis on delivering joint capabilities matched to the needs of the frontline user and high-level defence goals. Part of the Defence Capabilities Initiative, announced by NATO in April 1999, referred to Combat Identification with the intention of bringing all member nations up to the same level of capability. This has provided an extra impetus for the Department to ensure that its capabilities are interoperable with other NATO nations. (Paragraphs 2.3 to 2.6.)

12 As one of the many changes that occurred as a result of the Strategic Defence Review, the Department established the Equipment Capability Customer. As a result of the Joint Battlespace Initiative, focused on achieving information superiority, the Department established the Command and Battlespace Management Management Board. These organisations have helped to provide a coherent focus for Combat Identification matters within the Department. The Equipment Capability Customer is responsible for the provision and co-ordination of a joint, interoperable Combat Identification capability across the services and environments. The Command and Battlespace Management structure is designed to take forward the utilisation and effectiveness of digital communications into the battlespace by bringing together service and user needs, and preventing the duplication of high technology programmes across the Department. The two organisations are working closely together to deliver a Combat Identification capability. (Paragraphs 2.7 to 2.17.)

13 With many military operations now being undertaken on a combined basis with NATO, it is even more important that the Department is fully represented in the key NATO fora. We found that generally the Department is well represented and active on the relevant NATO Combat Identification bodies, but does not always have the resources to participate as much as it would ideally like. The Department is also actively working with other international fora on Combat Identification issues. (Paragraphs 2.18 to 2.27.)

14 In July 2001, the Department approved a policy paper on Combat Identification that outlined its definition of Combat Identification, the ensuing lines of responsibility and the aims of the policy paper. It also established a 1-Star Steering Group under the Command and Battlespace Management umbrella and provided this Group with a remit to carry forward Combat Identification solutions. Using the policy paper, the Steering Group has developed an action plan and will co-ordinate forward aims. The policy paper did set some priority areas, but did not establish clear time or budgetary ways forward, though timescales have followed in the subsequent Action Plan. (Paragraphs 2.28 to 2.37.)

The Department is taking forward its strategy on Combat identification, but more is required

15 The Department is taking forward its Combat Identification strategy using a technique known as the Six Lines of Development. In the past, the Department did not lay down recognised doctrine and standards for Combat Identification. Under its Action Plan, it is currently completing work on its joint doctrine for Combat Identification. In addition, the Department is also identifying the shortfalls in its tactical doctrine and the gaps in its tactics, techniques, and procedures. The latter work is ongoing and has no set deadline. (Paragraphs 3.2 to 3.6.)

16 The Department is working with NATO to ensure that the latter produces its operational and systems architecture for Combat Identification. This work has been slow, partly because of a lack of resources within NATO and the need for agreement amongst the Allies. At present NATO has two separate bodies which have an interest in Combat Identification matters and on occasion these interests have overlapped. (Paragraphs 3.7 to 3.10.)

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17 The key structural changes which the Department has put in place since 1998 have helped it to take forward the development of the Combat Identification strategy. Generally, the Department has communicated its strategy well to the key stakeholders. It is now faced with the challenge of cascading its strategy to all parts of the Department and finding Combat Identification solutions for the individual soldier and armoured vehicles. (Paragraphs 3.11 to 3.12.)

18 The Department has a number of discrete projects in train which will enhance its Combat Identification capability. The key programme under way is the Successor Identification, Friend or Foe programme for the air and the ground-to-air environments. In addition, the Department is seeking funding to implement its proposal for Combat Identification for the ground environment. The Department also has a number of other projects in hand which are designed to enhance Situational Awareness most notably in the naval environment. These advances in Combat Identification capability will still leave some gaps. The Department is aware of these gaps at a high level but it has commissioned research work to identify the detail of these gaps. (Paragraphs 3.13 to 3.25.)

19 The Combat Identification Policy Paper laid down a number of responsibilities for training. While a number of these have yet to be taken forward the Department is looking to establish how its joint doctrine operates in the battlespace. As a first step it is seeking to identify any lessons which arose from the Saif Sareea II exercise in Oman in 2001, and it will be also taking part in the Joint Combat Identification Evaluation Team exercise with the United States in April 2002. (Paragraphs 3.26 to 3.29.)

20 To enable it to fulfil its strategy for Combat Identification, the Department should implement the recommendations in the table overleaf:

Evidence from the Report

"The Department has not conducted more wide-ranging analysis to assess the challenges of Combat Identification in joint and coalition operations." (Paragraph 1.9.)

"[There are examples] of important equipment having reduced utility because of the risk of fratricide." (Paragraph 1.27.)

"Concerns have been expressed that there may be too many stakeholder interests represented in the Steering Group." (Paragraph 2.14.)

"Though the Department plays a central role in… NATO it is not always able to participate as much as it would like due to a lack of resources. This has meant that occasionally representatives from the Department have not always been able to take up some positions open to them." (Paragraph 2.24.)

"The Department is also undertaking work to incorporate Combat Identification into the doctrine and the tactics, techniques, and procedures for each of the services. This work is ongoing and currently has no set deadline for completion." (Paragraph 3.5.)

"The NATO Consultation, Command and Control Board… [is] responsible for implementing NATO's Defence Capabilities Initiative on Identification… NATO's Conference of National Armament Directors (CNAD)… is inter alia responsible for the…research, development and production of military equipment and weapons systems. This work can sometimes result…[in] overlap in NATO's work on Identification." (Paragraph 3.10.)

Action recommended

To inform decisions on Combat Identification, the Department should collate, analyse, and disseminate data on fratricide in joint and coalition operations and major exercises.

Business Cases for future acquisition programmes should address Combat Identification implications, where appropriate.

The Department should continue to involve all relevant stakeholders in its Combat Identification policymaking process. However, its Steering Group should be kept to a manageable size.

The Department should continue to develop its good work in NATO and ensure that staff are given every opportunity to participate fully in NATO's work on Combat Identification.

The Department should establish a definitive deadline for its work on tactics, techniques, and procedures, and its overhaul of doctrine even if only as a milestone within a continuous process.

We understand that the Department plays a key role in ensuring that either the NATO Consultation, Command and Control Board or the Conference of National Armament Directors has the lead on Identification issues to ensure that NATO has a fully co-ordinated way forward on this subject and it should continue to do so.