DATABASES OF OPERATIONS OTHER THAN WAR - WHY AND WHAT?

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INTRODUCTION

1.   This paper describes 2 databases being developed by CDA(HLS) both concerned with Operations Other Than War (OOTW). I shall be describing one and my colleague Ed will talk to you about the other. Before we start with the databases themselves it is worth pausing here to ensure that everyone is clear exactly what we mean by OOTW. The definition that we use is as follows:

> "They are operations which involve the use of Armed Forces but fall short of General War or widespread major conflict and are mounted using available manpower and equipment rather than regeneration. They span the scale of operation from a single Frigate providing a presence in a potential trouble spot to a large National Intervention operation."

As far as I am aware there is not yet a formal, agreed definition of OOTW.

2.   That definition is quite a mouthful, but I hope it shows the breadth of operations covered by the term OOTW. Breadth both in terms of size of force deployed and level of warfighting expected, although of course those two factors should be related. One would hope that you deploy a larger force to those operations where you might expect a hostile reaction.

3.   Now we are clear what is meant by OOTW, why is the same organisation, even the same department developing 2 OOTW databases? Surely that is a blatant waste of tax payer's money? Well I hope that by the end of this presentation you will be reassured that in fact the 2 databases serve very different purposes and in fact look at OOTW from opposing directions. In short we believe that they are complementary and not duplications.

4.   Taking OOTW to be part of a wider spectrum of conflict, you could say that it stretched from forward presence at one end to national intervention at the other. One of the databases - that which Ed will tell you about, looks across this whole spectrum. Clearly taking such a broad approach there is a limit to the amount of detail that can be recorded for each operation in the database. The database which I am about to describe takes the alternate view - it looks at very few operations but records a great amount of detail for each one.

5.   Clearly with time Ed's database can have additional detail added to it, while it is the intention to continue to add new operations to mine so slowly, over time, both databases could start to duplicate one another. However there is one more important difference that separates the two. Ed's database is concerned with current and possible future, projected operations. Mine is an historical database of actual operations post 1948. It is now time to start describing the databases in more detail. Starting first with mine - the historical database.

HISTORICAL DATABASE

6.   The aim of the database can be described as follows:

"To provide a source of information on historical OOTW post 1948 to inform the debate on force structures and to provide data for force planners."

7.   The database was developed as part of a much larger study concerned with force structures. The intention was to provide force planners, such as those associated with the new Permanent Joint Head Quarters (PJHQ), and those interested in designing force structures with details of past operations as an aid as to what might be required in the future.

8.   Using the past as a guide to the future can be dangerous - clearly the world has greatly changed since 1948 and with the demise of the Cold War can we really say that operations in the New World Order will be the same as those before the Iron Curtain came down? In addition, actually operations took what was available which is not necessarily the same thing as what was required. Even so, if the database shows that every operation post 1948 has required a squad of artisan well diggers and the latest cuts to the Army have relegated those skills to the Territorials you can start to see where the database could provide valuable and useful information.

9.   A prototype model has been developed. This concentrated on the design of the database for example, the relationships between the data items. As a result only 3 operations have been included in the database these are:

    a.   Malaya

    b.   Kuwait 61 (Op Vantage) and

    c.   Rwanda (Op Gabriel)

10.   It is now time for me to tell you the sort of information that the database contains for each operation. At least in a bit more detail than it is a database of historical operations.

11.   The database has 3 main sections, these are as follows:

    a.   Operation Overview.

    b.   Opposition Details.

    c.   Stages of the Campaign. This last is further sub divided into:

        i.   General Information

        ii.   Units

        iii.   Opposition

12.   Under operation overview the database attempts to provide details on the background and causes of the operation, as well as more general information concerned with the operation as a whole. The sorts of information are as follows:

       a.   Name, start and end date.

       b.   Map and population details.

       c.   Causes.

       d.   History and Outcome.

       e.   Roulement.

       f.   Casualties.

       g.   Training.

       h.   Rules of Engagement.

       i.   Incidents.

       j.   Policies.

13.   You will see that casualties are mentioned on that list. These are not just total casualties but are broken down as follows:

       a.   Total.

       b.   Total killed battle casualties.

       c.   Total wounded battle casualties.

       d.   Total missing/pw battle casualties.

       e.   Total dead non battle injuries (DNBI).

These figures are then provided for various categories for example in the Malayan campaign they are provided for Armed forces overall, civilian and police.

14.   Under opposition you can find information on the command structures of the opposition, their casualties - again subdivided as before and any details on any policies that they adopted.

15.   Finally for each stage of the operation you can find the following general information:

       a.   Name, start and end date.

b.   Command structure.

c.   Communications.

d.   Prisoners.

e.   Intelligence Assets.

f.   Medical Facilities.

g.   Casualties.

h.   Logistics.

As well as details on which units were deployed, the number of men per unit, the unit activities, their equipment and resources and whether they had any particular skills, or indeed lack of any particular skills. (This is where you would find details on those artisan well diggers, which I mentioned earlier.) Similar details then exist for the opposition; the hierarchy of the command structure, the number of men, casualties, equipment and resources and finally the key activities of the opposition forces.

16.   As I hope you now appreciate there is a wealth of information available in the database and consider that I have just listed the headings, and not provided the full details of all the information. As the number of operations increase enabling one to make more meaningful searches on, using the earlier example, say the number of operations that required artisan well diggers I am hopeful that the database will prove to be extremely useful.

17.   One feature I have not yet mentioned is that great care has been taken to include the source of the data where ever possible. So, liberally scattered throughout the database are categories simply labelled sources. Supporting this, where ever the researcher has answered a question for example "was policy effectively implemented" the yes/no answer is then further categorised into:

a.   from source.

b.   in opinion of historian.

c.   no evidence found otherwise.

It is then up to the user to place the degree of confidence that they wish onto the various categories.

18.   As far as the future of the database is concerned. It is the intention to widen the scope of the database by adding in more operations. This is currently taking two forms:

a.   PJHQ are sponsoring the inclusion of operations concerned with disaster relief.

b.   The original force structure study which developed the database has sponsored the Army Historical Branch to collate data on 4 additional operations. These are:

      i.   Cyprus (Counter Insurgency)

      ii.   Rhodesia / Zimbabwe (Peace Keeping)

     iii.   Bosnia (UN) - Op HAMDEN (Peace Keeping)

     iv.   Angola 1990s - Op Chantress (Humanitarian)

19.   I have already hinted at what I see as the possible uses of the database. An aid for those designing force structures for the future and force planners trying to put force packages together for current operations. Maybe some of you in the audience can see other uses. Obviously if you would like to know more about the database or would like to sponsor more operations then I would be more than happy to discuss this with you after the presentation, or later on this week. For now let me hand you over to Ed.

DATABASE OF FUTURE OOTW

INTRODUCTION

1.   As Ruth has said, my database has a different aim, and therefore different structure and content. I will hopefully make it clear why we need two separate databases in one department.

BACKGROUND

2.   The reason for the creation of my database is CDA Study PR023. This is examining "Concurrency Issues in mounting Operations Other Than War". The question it intends to answer is as follows:

> **Master Question M60.**
> *"Assess the ability of the UK's force structure to mount and sustain multiple, concurrent operations (less than GW), independently or within multinational forces over the period 1996-2016. Investigate how this ability might be constrained as additional crises arise and consider the sensitivity of assumptions, particularly with regard to readiness states and recovery times."*

3.   This leads to two implicit aims for the Study:

> *"Identify critical shortages of personnel and equipment"*

> and

> *"Examine the impact of OOTW on the ability to respond to other crises"*

4.   In simple terms, therefore, we need to see "what we run out of first". In more detail, this means that the forces needed to mount each operation (both manpower and equipment) and details of duration, distance and other relevant factors need to be stored. In addition, the amount of 'available' force needs to be compared to the 'required'. This list, in whatever format, constitutes a database and we have formalised the structure only as far as is needed for data audit purposes.

AIMS OF THE DATABASE

5.   Before the structure and content of the database could be designed, we of course needed to know what questions the database would need to answer. In order to do this, we looked at various aspects of the study that might influence the content and structure of the database; perspective, forces and operation types.

Study Perspective

6.   Ruth mentioned earlier that my database looks forward while hers looks backwards. This means that the operations that PR023 will include haven't yet happened. We have been very careful to make it clear that we are not attempting to *predict* what operations UK Forces might be involved in; others deal with assessments of that nature. What we are attempting to do is generate a range of *possible* operations with which to test various force structures. This

list needs to cover the full range of OOTW, and has to have more than one instance of any particular operation type. This will allow us to examine factors such as distance from the UK, on similar operations.

Force types

7.   Ruth gave this definition of OOTW earlier:

> *".... operations which involve the use of Armed Forces but fall short of General War or widespread major conflict and are mounted using available manpower and equipment rather than regeneration. They span the scale of operation from a single Frigate providing a presence in a potential trouble spot to a large National Intervention operation."*

8.   We use the same definition, and this guides the study in which military units and personnel need to be examined. As the Study is looking at OOTW, which will usually occur outside of areas where UK forces are routinely stationed, the relevant forces are the UK National Contingency Forces. These consist of all those forces that are not permanently assigned to any station or garrison, or otherwise unavailable for deployment elsewhere, and are therefore the forces that could and would be deployed on OOTW. The Study will need to be capable of tracking *any* military unit as it cannot be pre-judged which units or personnel will be the binding constraint. This will cover the full range from cooks and infantrymen up to aircraft carriers and AWACS aircraft.

Operation types

9.   The range of OOTW operations, as Ruth discussed earlier, is very wide. A relatively small, though politically important, operation to provide a presence in a troubled area will have a very different set of crucial factors to a large, Coalition based, operation to restore the sovereignty of an invaded country. At this point you may notice that I have shamelessly stolen one of Ruth's slides rather than create my own.

10.   With such a range of operations, any attempt to store all the detail on every operation would lead to an unmanageable database, containing far more information than actually needed. What we have attempted to do is distill all the various factors down to the minimum set that covers the whole range of operations, and gives the detail needed for the modelling process. I will now cover the detail that *is* being stored.

CONTENT OF THE DATABASE

11.   The list of operations could be very long. In an attempt to minimise the size, we have taken a number of operations, and then allowed both multiple occurrences of each operation, and variants - different distance, different size, and so on. As a result of this, and the 'data distillation' described earlier, the actual amount of information stored on each operation is much smaller than in the historical database described by Ruth. [2]

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[2] *At this point it should be noted that costs are explicitly excluded from the Study.*

12.   The information stored[3] is:

    a.   Operation name

    b.   Timescale (earliest year, latest possible year; if needed)

    c.   Location (or distance for 'multiple variants')

    d.   UK ORBAT (which units, includes logistic support, etc.)

    e.   Coalition ORBAT (if applicable, less detail than UK[4])

    f.   Threat ORBAT (if applicable)

    g.   Nature of operation (disaster relief, Peacekeeping, etc.)

    h.   Details of tasks in scenario.

    i.   Warning time and deployment delay (if any)

    j.   Political constraints (Neighbouring countries, etc.)

    k.   Geographical/Terrain/Meteorological factors.

STRUCTURE OF THE DATABASE

13.   As part of the Study, military Estimates were created for each scenario, and then used to allocate the forces needed to meet the tasks. These Estimates contain most of the details listed above, are stored for reference and have been published. For the purpose of the actual analysis, only a limited sub-set of the data is needed, and this is placed into the spreadsheet based model.

14.   The full database, therefore, actually consists of a number of data stores of varying formats, rather than a single electronic store as most people would think of a database.

FUTURE OF THE DATABASE

15.   We think this database represents one of the first attempts to create a wide range of representative future operations with ORBATs for each, and hope that it will become widely available within security limits. Interest has been shown from a number of places, and there is no reason why the data could not be collated into a "proper" database, and expanded further in terms of the detail on each operation.

16.   At this point, Ruth and I will be happy to try and answer any questions you may have.

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[3] *It should be noted that as the analysis progresses, the analysis plan is designed so that the information stored can be modified if needed, minimising the number of re-runs needed.*

[4] *The Study makes an assumption that UK forces support themselves, and no Coalition forces need UK support. The Coalition ORBATs are needed to allow the "percentage contribution" of the UK to be assessed.*