

THE ELECTRONIC WARFARE OPERATIONAL SUPPORT CENTRE (EWOSC) DATABASE - A USER PERSPECTIVE

Chris Howe

Abstract. Military organisations must ensure that electronic warfare (EW) systems used by front-line units are correctly programmed with up-to-date EW information. To accomplish this vital task, an EW Operational Support Centre (EWOSC) facility is an essential requirement to facilitate the minute-to-minute management and dissemination of the relevant EW data in support of operational commands. This short paper introduces the concept of a traditional EWOSC and describes the design of databases to support such an organisation.

INTRODUCTION

Military organisations must ensure that electronic warfare (EW) systems used by front-line units are correctly programmed with up-to-date EW information. To accomplish this vital task an EW Operational Support Centre (EWOSC) facility is essential to facilitate the minute-to-minute management and dissemination of the relevant EW data in support of such operational units. One such typical task is to provide geographically/mission-tailored, equipment-specific libraries for use in operationally deployed EW equipments. The main aim is to provide the EW operator with an aid to intercept identification through the use of radar descriptive libraries that are constantly being parsed via Radar Classification Algorithms (RCA's).

OVERVIEW

Many advanced countries that employ the use of EW systems maintain a considerable amount of EW information for use in the assessment of other nations' Electronic Order of Battle (EOB). In order to do this accurately and efficiently it is necessary to research, validate, analyse and consolidate all EW information from all sources. It is this area of EW support that this short paper is intended to cover.

DATA SUPPORT TASKS

The primary role of any traditional EWOSC is to provide single-service/tri-service EW data support to all front-line EW users and equipments. In general terms, the following high-level tasks provide the basis for any EW support activity:

- maintain database on a tri-service basis but always meeting single-service requirements;
- research, validate, analyse and consolidate EW information from all sources;
- update EW Master Database to reflect changes to EW data;
- rapidly disseminate significant database changes to front-line units; and
- maintain a customer support cell to facilitate liaison with the producers and users of EW information; and react positively and promptly to all customer feedback.

The overall aim must always be to provide a process from which a change in the EW environment is recognised, analysed and reacted to in the fastest possible time. The clock is always running.

SOURCES

EW source information can come in many varied shapes and sizes. It is generally broken into two distinct categories, namely *classified* and *unclassified* (open sources); although the latter may have a form 'commercially sensitive' caveat attached to it. Generally speaking though, and in this paper, EW source information is referred to as classified and unclassified.

Classified Sources

Classified sources are without doubt the safest type of information to be used within an EWOSC. Quite simply, there has to be an accepted level of trust and confidence in the use of this type of EW data. It goes without saying that the providers of such a level of classification will have an in-built vetting system that by default ensures a high degree of security within not only the people but the organisation in general. Secondly, data provided from a classified supplier would normally infer that the EWOSC staff have an above-average knowledge of the quality control procedures applied to the data being provided. This is a very important issue when relying on sources from a 'third-party friend'.

Typical classified sources can include nationally owned radar parametric data, nationally observed (intercept) data and, in some cases, information derived from bi-lateral/multi-lateral Memorandum of Understanding (MOU).

Unclassified Sources

Often referred to as 'open sources', unclassified sources can provide a whole host of information about who has what capability, when did they buy, and so forth. Although some of it can be expensive, this does not always have to be the case. So often this type of non-parametric information can be easily gleaned from open press, magazines, manufacturers marketing literature and of course the World Wide Web.

General

However, both these categories have inherent problems. In the case of classified sources consideration must be given to the implications if information that has been derived from an MOU with a 'friendly nation'. Once this source information has found its way into the Master Database it would be wise to have some form of security level or source tagging attached to the individual field or record. Imagine the embarrassment should this type of data be inadvertently given away to a third party under another MOU thereby violating the agreements set down in any bi-lateral