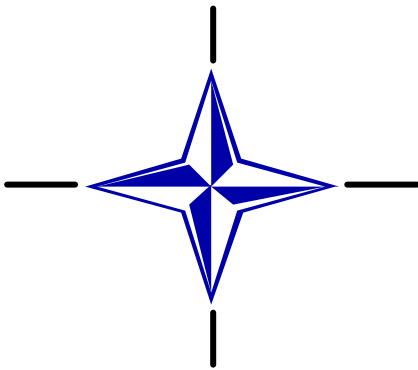


**MULTILATERAL INTEROPERABILITY PROGRAMME  
NATO DATA ADMINISTRATION GROUP  
MEMORANDUM OF AGREEMENT (MIP-NDAG-MOA)**



**4 February 2004, Mons, Belgium**

This Multilateral Interoperability Programme (MIP) and NATO Data Administration Group (NDAG) MOA has been reviewed and is hereby approved by both organisations.

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MIP PMG Chairman

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NDAG Chairman

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## **MIP – NDAG MEMORANDUM OF AGREEMENT**

### **1 PURPOSE**

This document describes the agreement between the Multilateral Interoperability Programme (MIP) and the NATO Data Administration Group (NDAG) communities with the aim of producing, sustaining and evolving one Joint/Combined Consultation, Command and Control (C3) Information Exchange Data Model (JC3IEDM).

### **2 ORGANISATION AND RESPONSIBILITIES**

#### **2.1 MIP Organisation**

The aim of the Multilateral Interoperability Programme (MIP) is to achieve international interoperability of Command and Control Information Systems (C2IS) at all levels from corps to battalion, or lowest appropriate level, in order to support multinational (including NATO), combined and joint operations and the advancement of digitisation in the international arena.

The MIP consists of Full Members (nations only) and Associate Members (nation and non-nation entities).

MIP is organised into 7 working groups with an executive management body and a high level steering group for resources, policy and targets.

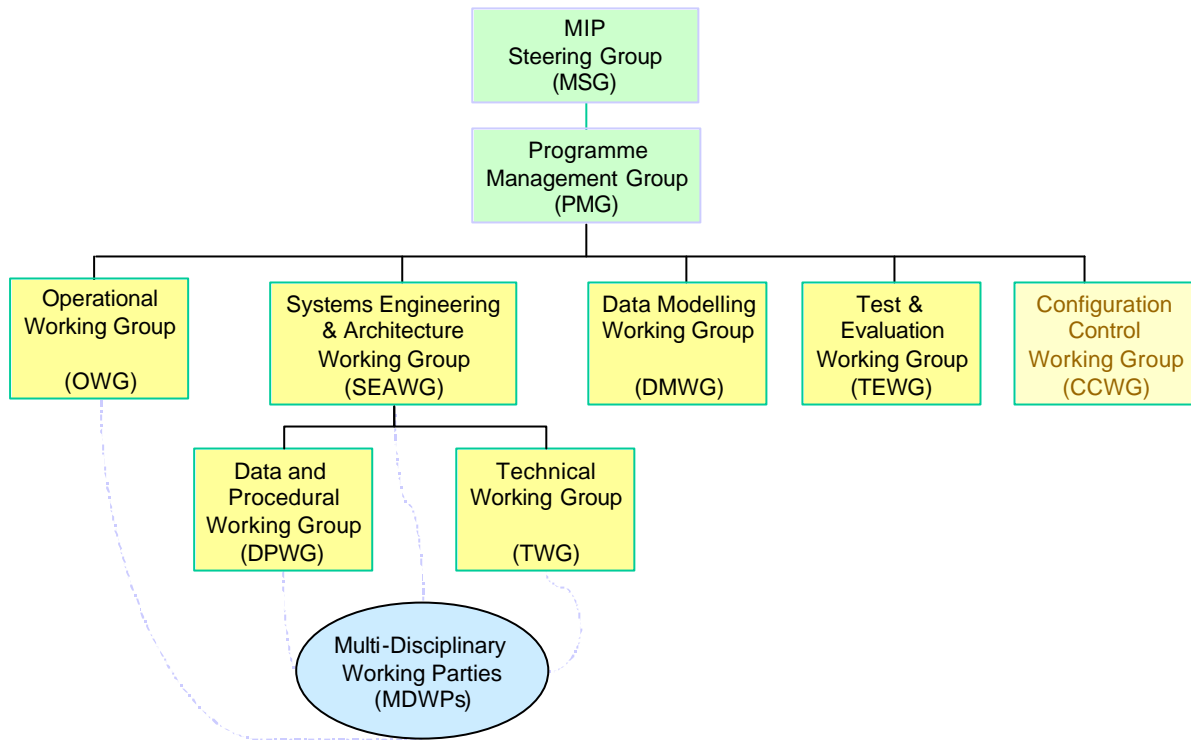


Figure 1 – MIP Organisation

Although the whole of the MIP organisation will be involved in the NDAG-MIP relationship, the main working group that will cover this relationship will be the Data Modelling Working Group (DMWG)<sup>1</sup>. The Operational Working Group (OWG) will also have a role in the coordination aspect of the IERs with its NATO counterpart.

The position of DMWG Deputy Chair will be proposed by the NDAG. This position should attend and report to the NDAG meetings.

## 2.2 NDAG Organisation

The NDAG is a multinational working group, responsible to the Information Systems Sub-Committee (ISSC) for the development and maintenance of NATO data management

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<sup>1</sup> Each MIP Member shall send at least one representative to the DMWG. In addition to this, representation from interested organizations participating, or interested in deploying a MIP solution package (HQ ARRC, HQ EUROCORPS, EUROFOR, etc) and otherwise not an Associate Member may be invited to attend. The MSG will take the decision of this matter.

policies for recommendation to the NATO C3 Board, together with guidance on the coherent implementation of data management and administration across NATO.

The NDAG is composed of a permanent Chairman with voting members and non-voting representatives and experts as follows:

- a. A voting member from each interested NATO Nation and Strategic Command.
- b. Non-voting representatives from the Partnership for Peace Nations; NATO bodies; Project Offices; experts from Nations, Strategic Commands, industry or other international data standard bodies; and NATO Data Administration (NDA) staff.

### **2.3 MIP-NDAG Management Board**

The MIP-NDAG Management Board (MNMB) responsibilities are described in 2.4.3.

Both organisations will provide subject matter/operational experts as required.

There will be one vote for MIP and one for NDAG. If consensus cannot be achieved, an arbitration process will take place to bring all issues requiring resolution to the MSG and ISSC if not resolved.

## **2.4 Responsibilities**

### **2.4.1 NDAG**

The NDAG will:

- a. Perform high-level Data Administration for both parties;
- b. Promulgate the JC3IEDM as a NATO STANAG;
- c. Perform configuration management and data quality processes of the STANAG;
- d. Propose and prioritise any requirements for information exchange designated as Joint and/or Combined by a valid authority (NSA, Bi SC, NDAG) for inclusion into the JC3IEDM;
- e. Coordinate and deconflict valid requirements with the MIP OWG;
- f. Propose IERs for 'Consultation' for inclusion into the JC3IEDM on behalf of NATO;
- g. Promote semantic interoperability within NATO and to National C2 systems;

- h. Standardize meta data (initially focussing on Data Elements<sup>2</sup>) from development of IERs to various mechanisms of information exchange;
- i. Provide the Standard Data Elements (SDE) to MIP;
- j. Publish the JC3IEDM via the Information Resources Dictionary System (IRDS).
- k. Provide the principle point of contact with NATO Standardisation Agency (NSA) and Multi-National Data Management Organisation;
- l. Promote provision of operational and technical resources for the Data Modelling Working Group to include the Joint and/or Combined IERs into the JC3IEDM;
- m. Redirect the NDAG Data Modelling Syndicate efforts towards development of the JC3IEDM.

#### **2.4.2 MIP**

The MIP will:

- a. Undertake data modelling required for the evolution of the JC3IEDM incorporating approved IERs to include:
  - Design and control of the JC3IEDM logical model;
  - Implementation of operational business rules within the JC3IEDM;
- b. Implement standards and procedures covering aspects such as data definition and data naming of the JC3IEDM, in accordance with the SDEs defined by NDAG;
- c. Maintain and control the JC3IEDM data dictionary (MIRD) including receipt of SDEs from the NATO IRDS as available;
- d. Manage and allocate JC3IEDM Data Identification Keys;
- e. Provide resources to the Data Modelling Working Group, primarily focused on Land Centric requirements into the JC3IEDM.

#### **2.4.3 MIP NDAG Management Board**

The MNMB will perform, in combined NDAG MIP PMG sessions held in conjunction with MIP PMG meetings, strategic data planning consisting of:

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<sup>2</sup> Elaborated in ISO 11179.

- a. Approval of IERs from NDAG and MIP to incorporate into the next version of the JC3IEDM.
- b. Prioritising and de-conflicting IERs.
- c. Evolution of the JC3IEDM in accordance with the MIP Integrated Programme Schedule (MIPS);
- d. Approval of the Programme of Work for the evolution of the JC3IEDM.
- e. Resolution of any issue highlighted by either organisation;
- f. Initial approval of the JC3IEDM that both organisations will propose to their parent groups (ISSC and MSG) for final approval.

### **3 JC3IEDM**

#### **3.1 Stakeholders**

NATO and implementing Nations drawn from NATO and MIP communities.

#### **3.2 Definition**

JC3IEDM is characterized by:

- a. Joint/Combined, that describes activities, operations, organisations in which elements of more than one Service and/or more than one Nation participate.<sup>3</sup>
- b. Consultation, that implies the exchange of views and the conduct of deliberations amongst the highest authorities of the Alliance and member nations aiming at harmonizing positions and formulating recommendations on issues of common concern (consultation may involve international organizations, Partner nations and, as required, other non-NATO nations)<sup>4</sup>.
- c. Command and Control from the lowest appropriate level to the Strategic Commands Command and Control from the lowest appropriate level to the

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<sup>3</sup> Adapted from AAP 6 (2003).

<sup>4</sup> AAP 6 (2003). From a Data Modelling prospective, this should allow the Commanders to participate in Consultation. To that end, the current C2IEDM and the Reference Model already include elements such as Rules of Engagement and Candidate Target List.

Strategic Commands requirements. Joint aspects from J1-J9 could be limited to the identified Commander's Critical Information Requirements (CCIRs)<sup>5</sup>.

- d. Information Exchange Data Model, which is a formal specification of information exchange between collaborating parties within a business area<sup>6</sup>.

## **4 PROGRAMME OF WORK (POW)**

### **4.1 JC3IEDM v1.0**

The first version of the JC3IEDM will be produced during the MIP Block 3 schedule (2004-2007) and will be in-service during the January 2008 to December 2009 period. This version will be the natural evolution of the MIP C2IEDM v.6.1 and the main task for its evolution will be to incorporate the MIP Block 3 requirements as well as all the "not-yet-included IERs" that have been incorporated into the Reference Model (RM) version 4.0.0 (with issues of, amongst others, the location sub-model, rationalised between NDAG and MIP to ensure commonality between the RM and the C2IEDM edition v6.1). The DMWG will propose the decision criteria for the rationalisation of the two models to the MNMB for approval.

Other NATO prioritised outstanding Joint/Combined requirements for the first version of the JC3IEDM may include approved queue of Change Proposals (CPs), additional ATO features, Bi Strategic Commands (SC) requirements and other requirements that are not in NATO RM v4.0.0 provided these requirements are available not later than December 2004, and NATO provides the appropriate level of Data Modelling resources to complete the requirements. The time schedule must be taken into account since the OWG begins definition of Block 3 requirements in March 2004 with a first draft of the requirements required by December 2004 and the approved requirements finalised in June 2005. These approved requirements will include the NDAG contribution to the JC3IEDM. This will lead to the JC3IEDM being available for NATO to publish as a STANAG in November 2005.

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<sup>5</sup> CCIR, in this context, is used to reflect the Joint and multi-Service Commander's critical information needs. Further analysis is required on NATO's methods for capturing these requirements.

<sup>6</sup> From ATCCIS WP 3-7



## **4.2 JC3IEDM Future Versions**

Operational Requirements for further versions of the JC3IEDM will be proposed by NDAG and by MIP and will be approved by the MNMB in accordance with the MIPS.

## **4.3 Workflow**

In principle, both communities will generate requirements through an operationally focused working group. These two groups will exercise coordination between each other in order to deconflict requirements as much as possible prior to submission to the MNMB. Both communities will submit their IERs to the MNMB who will approve this consolidated list and task the DMWG accordingly.

The DMWG will examine the consolidated list of requirements and, in an iterative fashion, produce the necessary CP's. The DMWG will report and liase with both the MNMB and the operational communities, seeking guidance and clarification on resource, operational and technical issues respectively.

The MNMB will monitor the progress of the DMWG and provide results to both MIP and NDAG on a regular basis. Where the MNMB cannot resolve issues passed to it by the DMWG they will raise them to the next level (MSG and ISSC) for arbitration. Both communities will consult with both operational and external organisations as required.

These relationships are shown in Diagram 1 below.

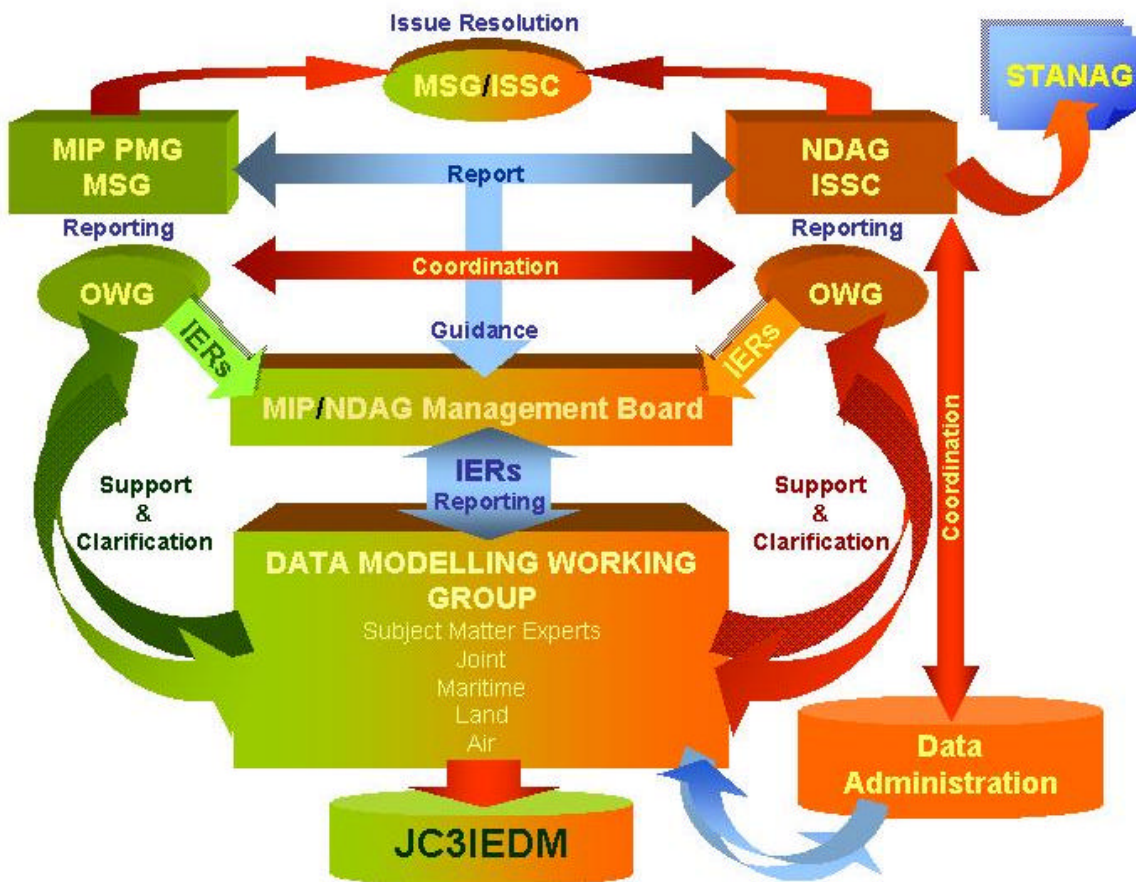


Diagram 1 - Relationships

#### **4.4 Meetings**

The MNMB will meet in conjunction with the MIP PMG, in line with the meetings outlined in the MIPS. At the beginning of each block they will approve both the IERs that are to be modelled in the next version of the JC3IEDM and the POW. It will meet at any time that is deemed appropriate, at the request of either party. The first MNMB meeting is scheduled to take place in March 2004 co-located with the PMG 9.

The DMWG will meet at least four times a year in accordance with the MIPS. Other meetings may be held as required and could be hosted by NDAG.

#### **4.5 Tools**

For JC3IEDM v1.0, MIP will not change from ERW in version 3.5.2. Until September 2004, it is recommended that existing office automation software be used to support the CP process. In parallel, during 2004, the MIP and NDAG communities will agree on commercially available development environments for the future through the existing MIP Tools Working Party.

### **5 MOA CHANGES**

This agreement can be modified or amended at any time with mutual agreement of both parties. It can be terminated by either party with at least 6 months written notice by the MIP PMG Chairman and/or the NDAG Chairman or designated representatives.