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Commented APP-6A - Military symbols for land based systems

NATO's current military symbology standard

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Technical Note

DRDC Valcartier TN 2005-222

September 2005

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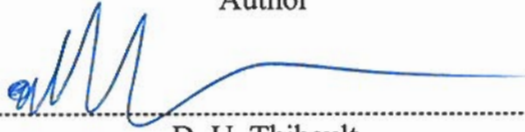
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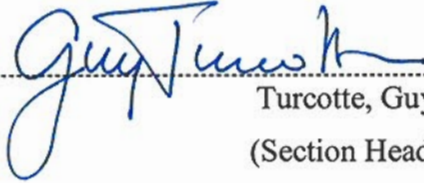
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Abstract

The contained document is a commented edition of APP-6A. It has been canadianised, corrected (typos and other obvious errors), enhanced (hypertext links), augmented and commented (in footnotes). Additions and changes are clearly marked in red. The original electronic document was the October 1998 Ratification Draft (distributed with the Electronic Battle Box —which is now called OPERA); a few extra opening pages were inserted and/or edited to upgrade to the December 1999 Promulgation Edition obtained from the BÉAT (Bibliothèque électronique de l'armée de terre (France)) web site.

Comparisons are made between APP-6A (and its sister standard Mil-Std-2525A) and the current Mil-Std-2525B and the 61 Approved Change Proposals (Mil98-04a through Mil03-09), which were made publicly available on 29 August 2003. Access to the other Symbology Standards Management Committee (SSMC) documents is still restricted by the U.S. Defense Information Systems Agency (DISA) to U.S. citizens only.

Résumé

Le document ci-inclus est une édition commentée d'APP-6A (texte anglais). Elle a été canadienisée, corrigée (coquilles et autres erreurs flagrantes), améliorée (liens hypertextuels), augmentée et commentée (à l'aide de notes de bas de page). Les additions et changements sont clairement identifiés en rouge. Le document électronique original était le Ratification Draft d'octobre 1998 (distribué avec le Coffre de campagne électronique —maintenant devenu OPERA); quelques pages frontispices ont été insérées ou éditées afin de l'amener au niveau de l'édition de promulgation de décembre 1999, obtenue du site Web de la BÉAT (Bibliothèque électronique de l'armée de terre (France)).

Les commentaires font la comparaison entre APP-6A (et sa norme sœur Mil-Std-2525A) et la norme courante Mil-Std-2525B et les 61 Change Proposals approuvés (Mil98-04a jusqu'à Mil03-09), qui ont été rendus publics le 29 août 2003. L'accès aux autres documents du Symbology Standards Management Committee (SSMC) reste limité aux citoyens américains par l'U.S. Defense Information Systems Agency (DISA).

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Executive Summary

Military symbology plays a pivotal role in command and control. By distilling information to its essentials, it allows the rapid attainment of situational awareness; by its graphical nature, it provides a common operational language that greatly facilitates interoperability across cultural and linguistic barriers. This "algebra of warfare" appeared simultaneously with the rise of nation-states and the organised warfare that ensued. With the arrival of information technologies, the need was quickly recognised for an international standard that could then be taught to computers. The merger of air, sea and ground symbologies with the ultimate paper-bound standard, APP-6, resulted in Mil-Std-2525 and its NATO sister APP-6A.

Whilst Mil-Std-2525 is still evolving (2525C being expected "soon"), NATO's APP-6 standard has been lagging somewhat, for a variety of technical, political and administrative reasons. As each alliance nation struggles with the technical challenges of providing symbology services within its computerised command and control system, the time was ripe for a detailed examination of the standard in its current and near-future forms, paving the way for a smooth future evolution.

This commented edition of APP-6A should prove a precious help for symbology implementers, directing their attention to problem areas so they can be addressed early in the design stages, and warning them of evolutionary trends and possible future requirements, so the proper flexibility can be designed in. For students, teachers and practitioners, some issues of symbol design are touched upon and should serve as food for thought regarding the future evolution of the symbology.

Other publications being considered include a compendium of the glyphs out of which the symbols are composed, and suggested extensions of the symbology into the crisis response and civilian agency domains.

D. U. Thibault. 2005. Commented APP-6A - Military Symbols for Land Based Systems. DRDC Valcartier TN 2005-222. Defence R&D Canada – Valcartier.

Sommaire

La symbologie militaire joue un rôle crucial en commandement et contrôle. En distillant l'information à son essence, elle permet d'atteindre rapidement la compréhension de la situation; de par sa nature graphique, elle fournit un langage opérationnel commun qui facilite grandement l'interfonctionnement malgré les obstacles culturels et linguistiques. Cet "algèbre de la guerre" est apparu de concert avec l'ascension des nations-états et l'organisation de la guerre qui s'ensuivit. Avec l'arrivée des technologies de l'information, on a vite reconnu le besoin d'une norme internationale qui puisse être enseignée aux ordinateurs. La fusion des symbologies aérienne, navale et terrestre avec l'ultime norme-papier, APP-6, a donné Mil-Std-2525 et sa norme sœur OTAN APP-6A.

Tandis que Mil-Std-2525 continue d'évoluer (2525C étant attendu "bientôt"), la norme OTAN APP-6 a pris un certain retard, pour diverses raisons techniques, politiques et administratives. Comme chaque nation alliée s'attaque au défi technique que représentent les services symbologiques à fournir aux systèmes informatisés de commandement et contrôle, le temps était venu d'examiner la norme en détail dans son état courant et à venir, préparant son évolution future sans heurt.

Cette édition commentée d'APP-6A devrait être d'une aide précieuse lors de l'implantation de la symbologie, attirant l'attention sur les points de contention afin qu'ils puissent être attaqués le plus tôt possible lors des phases de conception, et soulignant les tendances évolutives et les possibles besoins futurs, afin que la flexibilité nécessaire puisse être incluse. Pour les étudiants, enseignants et pratiquants, certains problèmes de conception symbolique sont soulevés et devraient alimenter la réflexion portant sur l'évolution future de la symbologie.

Parmi les autres publications possibles on compte un compendium des glyphes servant à composer les symboles, ainsi que des extensions suggérées servant à étendre la symbologie aux domaines des opérations de réponse aux crises et des agences civiles.

D. U. Thibault. 2005. Commented APP-6A - Military Symbols for Land Based Systems. DRDC Valcartier TN 2005-222. Defence R&D Canada – Valcartier.

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1. Commented APP-6A

[APP-6A Military Symbols for Land Based Systems](#)

Note: On 2004 July 01, the *Commandement de la doctrine et de l'enseignement militaire supérieur de l'armée de terre* (CDES) was replaced by two organisations, the *Centre de doctrine d'emploi des forces* (CDEF) and the *Collège de l'enseignement supérieur de l'armée de terre* (CESAT). As a result, the BÉAT link given in the document no longer exists, and the referenced document can, for now, no longer be found on the Web.

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MIL-STD-2525B *Approved Change Proposal Mil00-06a*, 24 May 2001 (06 June 2001)

MIL-STD-2525B *Approved Change Proposal Mil00-07a*, 24 May 2001 (06 June 2001)

MIL-STD-2525B *Approved Change Proposal Mil00-08a*, 24 May 2001 (06 June 2001)

MIL-STD-2525B *Approved Change Proposal Mil00-09a*, 24 May 2001 (06 June 2001)

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MIL-STD-2525B *Approved Change Proposal Mil00-25a*, 24 July 2003 (28 August 2003)

MIL-STD-2525B *Approved Change Proposal Mil00-26b*, 24 August 2001 (06 September 2001)

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MIL-STD-2525B *Approved Change Proposal Mil00-39a*, 24 July 2003 (28 August 2003)

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MIL-STD-2525B *Approved Change Proposal Mil01-04a*, 24 August 2001 (06 September 2001)

MIL-STD-2525B *Approved Change Proposal Mil01-06*, 24 July 2003 (28 August 2003)

MIL-STD-2525B *Approved Change Proposal Mil01-07*, 24 July 2003 (28 August 2003)

MIL-STD-2525B *Approved Change Proposal Mil01-08*, 24 July 2003 (28 August 2003)

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MIL-STD-2525B *Approved Change Proposal Mil03-02*, 24 July 2003 (28 August 2003)

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List of Symbols/Abbreviations/Acronyms/Initialisms

APP	Allied Procedural Publication
ASPO	(U.S.) Army Space Program Office
BÉAT	(FR) Bibliothèque électronique de l'armée de terre
CDEF	(FR) Centre de doctrine d'emploi des forces
CDES	(FR) Commandement de la doctrine et de l'enseignement militaire supérieur de l'armée de terre
CESAT	(FR) Collège de l'enseignement supérieur de l'armée de terre
DISA	(U.S.) Defense Information Systems Agency
DND	Department of National Defence
DRDC	Defence R&D Canada
DRP	Document Review Panel
GSD	Graphical Situation Display (ASPO programme)
NATO	North Atlantic Treaty Organisation
OPERA	Operational Planning Environment and Reference Application
SSMC	Symbology Standards Management Committee
STANAG	Standardisation Agreement

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Distribution List

External

1 – Base Operations Officer / Canadian Forces Base (CFB) Halifax
Cdr Colin A. H. Darlington

1 – Bibliothèque électronique de l'armée de terre (BÉAT)
a/s Collège de l'enseignement supérieur de l'armée de terre (CESAT)
1 place Joffre
B.P. 54
00445 Armées, Paris, France

1 – Director, Research and Development Knowledge and Information Management
(DRDKIM)

1 – Directorate of Army Doctrine (DAD)

1 – Directorate of Plans, Doctrine & Training (DPDT)
DCDS/DGJFD/DPDT/J7 Standardization 2 (LCdr David P. Finch)

1 – NATO Consultation, Command and Control Agency (NC3A)
Boulevard Léopold III, B-1110 Bruxelles, Belgique

1 – NATO Standardisation Agency (NSA)
NATO, 1110 Brussels, Belgique

1 – Public Safety and Emergency Preparedness Canada (PSPEC)
c/o Robert Corley
340 Laurier Avenue West,
Ottawa, ON K1A 0P8

1 – U.S. Symbology Standards Management Committee (SSMC)
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(U) Symbology; Military Symbology; Allied Procedural Publication; APP-6A; MIL-STD-2525; MIL-STD-2525A; MIL-STD-2525B; MIL98-04a; MIL98-05a; MIL98-06; MIL99-01c; MIL99-02a; MIL00-01a; MIL00-02a; MIL00-03a; MIL00-04a; MIL00-05a; MIL00-06a; MIL00-07a; MIL00-08a; MIL00-09a; MIL00-10a; MIL00-11b; MIL00-12b; MIL00-13b; MIL00-14b; MIL00-15b; MIL00-16b; MIL00-17b; MIL00-18b; MIL00-19b; MIL00-20b; MIL00-21b; MIL00-22b; MIL00-23b; MIL00-24b; MIL00-25a; MIL00-26b; MIL00-27b; MIL00-28b; MIL00-29b; MIL00-30b; MIL00-31a; MIL00-32a; MIL00-33a; MIL00-34a; MIL00-35a; MIL00-36a; MIL00-37a; MIL00-38a; MIL00-39a; MIL00-40a; MIL00-41a; MIL00-42a; MIL00-43a; MIL00-44a; MIL01-01a; MIL01-02; MIL01-04a; MIL01-06; MIL01-07; MIL01-08; MIL01-09; MIL01-10; MIL03-01; MIL03-02; MIL03-08; MIL03-09

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