

SUMMARY OF CHANGES*

LIST OF DUAL-USE GOODS & TECHNOLOGIES AND MUNITIONS LIST

as of 1 December 2010

The following table outlines the changes made to the 2009 List of Dual-Use Goods & Technologies and Munitions List (WA-LIST (09) 1). However, the table should be used only as a reference. The changes include all agreed Experts Group amendments as of 1 December 2010.

| Category/Item | Comments |
|----------------------------------|---|
| GTN/GSN | - No change |
| Category 1 | |
| 1.A.2. Notes 2 and 3 | - reference to «finished» items deleted |
| 1.A.2. | - New Note 4 |
| 1.A.4.c. - editorial change | - «Nuclear, biological and chemical (NBC)» deleted |
| 1.A.4., Note – editorial changes | - «and» replaced by «or» after «residential safety» - industries listed in cascading structure for clarity |
| 1.B.1.c. | - «specially designed or modified» added after «modification kits» - «to manufacture» replaced by «for» - Note deleted |
| 1.C.3., Technical Note | - «relative» added after «initial» for clarity |
| 1.C.6.c. | - characteristics of damping or flotation fluids listed in cascading structure for clarity - following entries indicated with letters instead of numbers |
| 1.C.8.a. | - chapeau created for «Imides» |
| 1.C.8.a.2. | - 'glass transition temperature (Tg)' added |
| 1.C.8.b.1. | - «compounds» added |
| 1.C.8.b.1.a. | - CAS numbers deleted |
| 1.C.8.b.2. | - «acids» added |
| 1.C.8.f., Technical Note | - sentence added referring to PAI test specimen |
| 1.C.10.e., Note 2 | - new paragraph b. added |
| 1.C.10.e., Technical Note | - redrafted to address thermoset materials |
| 1.C.11.b. | - «boron carbide» replaced with «boron alloys» - comma added after «boron alloys» to clarify that particle size applies to both boron and boron alloys - cascading structure adopted to clarify the meaning of «85% purity» |
| 1.C.11. | - new Nota Bene added referring to ML8.c.5.b. |

* This revision is issued to reinsert into 9.E.3.a.2. «thermally decoupled combustion liners» which had been inadvertently deleted. For the corrected version of the Control Lists, see WA-LIST (10) 1 Corr.

| Category/Item | Comments |
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| Category 2 | |
| 2.A.1.a. | - parenthetical reference to ABEC standards deleted except for «or national equivalents» |
| 2.A.1.b. | - deleted |
| 2.B.1.e.2. | - «two or more rotary axes» amended to read «At least two or more...» |
| 2.B.5.g. | - «allowing for» replaced by «capable of» |
| 2.B.6.a. | - «maximum permissible error of indication (MPEE)» replaced by «maximum permissible error of length measurement ($E_{0,MPE}$)» - year of ISO reference updated from 2001 to 2009 |
| 2.B.6.a., Technical Note | - «MPEE» replaced by « $E_{0,MPE}$ » |
| 2.B.6.c., Note | - redrafted for clarity |
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| Category 3 | |
| 3.A.1.a.4. | - deleted |
| 3.A.1.a.5. – editorial change | - (ADC) and (DAC) added |
| 3.A.1.a.5.a.2. | - output rate parameter increased to greater than 300 million words per second |
| 3.A.1.a.5.a.3. | - output rate parameter increased to greater than 200 million words per second |
| 3.A.1.a.5.a.4. | - output rate parameter increased to greater than 125 million words per second |
| 3.A.1.a.5.a.5. | - output rate parameter increased to greater than 20 million words per second |
| 3.A.1.a.5. – Technical Notes | - amended and expanded |
| 3.A.1.a.5.b. | - amended and expanded, including Technical Notes 1 to 4 |
| 3.A.1.b.2.a. and b. | - 6 GHz increased to 6.8 GHz |
| 3.A.1.b.2.d. and f. | - average output power parameter added |
| 3.A.1.b.2., Note 1 | - deleted |
| 3.A.1.b.2., Note 3 | - «in the chapeau to Category 3» replaced by «in 3.A» |
| 3.A.1.b.3.a. and b. | - 6 GHz increased to 6.8 GHz |
| 3.A.1.b.3.e. | - average output power parameter added |
| 3.A.1.b.4.a. and b. | - 6 GHz increased to 6.8 GHz |
| 3.A.1.b.4.c. and e. | - average output power parameter added |
| 3.A.1.b.4., Note 1 | - deleted |
| 3.A.1.b.11. | - «from one selected frequency to another» deleted from chapeau |
| 3.A.2.c.1. and 2. | - amended |
| 3.A.2.c.3. | - new entry for "signal analysers" - existing entry renumbered 3.A.2.c.4. - reference changed in Note (consequential change) |
| 3.A.2.c.4. | - 500 kHz changed to 40 MHz |
| 3.A.2.d.1. | - entry rewritten |
| 3.A.2.d.2. | - entry rewritten |

| Category/Item | Comments |
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| Category 3 cont. | |
| 3.A.2.d.3. | - «from one selected frequency to another» deleted |
| 3.A.2.d.3.d. | - «or» deleted from end of entry (consequential change) |
| 3.A.2.d.3.e. | - entry rewritten |
| 3.A.2.d.3.f. | - new entry |
| 3.A.2.d.4. | - chapeau rewritten to include an upper synthesized frequency limit of 70 GHz |
| 3.A.2.d.5. | - new entry |
| 3.B.1.d.1. and 2. | - 180 nm replaced by 65 nm |
| 3.B.1.f.1.b. | - 180 nm replaced by 95 nm - (MRF) added (editorial change) |
| 3.B.1.f.1.b., Technical Note | - (MRF) added (editorial change) - K factor changed from 0.45 to 0.35 |
| 3.B.1.f.2. | - 180 nm replaced by 95 nm |
| 3.E.1., Note 2 | - parameter changed in paragraph a. - paragraph b. rewritten - Technical Note deleted |
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| Category 4 | |
| 4.A.1.a.1., Note | - "civil aircraft" added |
| 4.A.1.a.2.c. | - parameter changed to 10 ⁻⁸ |
| 4.A.1.a.2. | - new Note added |
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| Category 5 – Part 1 | |
| Note 1, N.B.2 | - new Nota Bene referring to Category 5 – Part 2 added |
| 5.A.1.c. | - existing chapeau deleted - 5.A.1.c.1. renumbered 5.A.1.c. - «and» added after «length» |
| 5.A.1.c., N.B. | - N.B.1. moved from 5.A.1.c.2. and modified |
| 5.A.1.c.2. | - entry, Note, N.B.1. and N.B.2. deleted |
| 5.A.1.h. | - entry rewritten, including new N.B. |
| 5.E.1.b.4. | - new Note added |
| 5.E.1.d.1. and 2. | - 6 GHz increased to 6.8 GHz |
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| Category 5 – Part 2 | |
| 5.A.2.b. | - new entry |
| 5.A.2., Note – paragraphs g. and i. | - «or» deleted from end of para. g. and added to end of para. i. (consequential change) |
| 5.A.2., Note - paragraph j. | - new entry, including Nota Bene and definition for "cryptographic activation" |
| 5.D.2.d. | - new entry |
| 5.E.2. | - new chapeau |
| 5.E.2.b. | - new entry |

| Category/Item | Comments |
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| Category 6 | |
| 6.A.1.a.1.a. | - new entry for Acoustic seabed survey equipment, including sub-entries 1, 2 and 3 |
| 6.A.1.a.2. | - parenthetical phrase deleted - new Note added to end of entry |
| 6.A.1.c. | - entry moved to 8.A.2.r. - Nota Bene added referring to Category 8 |
| 6.A.2.d.3. | - new Note added |
| 6.A.3.b.4., Note 3 – Tech. Note – editorial change | - abbreviations corrected to read: «'Horizontal IFOV' or the 'Vertical IFOV'» |
| 6.A.5.c.1. | - new Note added |
| 6.A.5.g. | - new entry, including Technical Note |
| 6.A.6.e. | - new entry |
| 6.A.8.1.1. | - «or» added at the end of the sentence (consequential change) |
| 6.A.8.1.2. and 3. | - entries deleted |
| 6.A.8.1.4. | - entry modified, including new Nota Bene referring to ML5.b. |
| 6.D.3.f.3. and 4. | - new entries |
| 6.D.3.h.1. | - «designed to be» added after «"software" application "programmes"» |
| 6.E.3.d.1. | - «an 'optical thickness'» added after «"required" to achieve» - new Technical Note added for the local definition of 'optical thickness' |
| "radiant sensitivity" | - all instances of this newly defined term take double quotes |
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| Category 7 | |
| 7.A.1.a.2. | - «but less than or equal to 100 g» added after «levels exceeding 15 g» |
| 7.A.1.a. | - new Note added for 7.A.1.a.1. and 2. |
| 7.A.2.a. and b. | - entries largely modified and renumbered, including Notes |
| 7.A.3.d. | - «and specially designed components therefor» deleted |
| 7.E.4.a.3. | - entry modified |
| 7.E.4.a.4. | - deleted |
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| Category 8 | |
| 8.A.1.d.3. | - «Fibre» deleted and «optic» changed to «optical» |
| 8.A.2.i.1. – editorial change | - entry modified and cascading structure adopted for clarity (sub-entries a. and b.) |
| 8.A.2.o.3.b. – editorial change | - entry modified including local definition for 'Active noise reduction or cancellation systems' (new Technical Note) |
| 8.A.2.p. – editorial change | - entry modified and cascading structure adopted for clarity (sub-entries 1. and 2.) |
| 8.A.2.q. – editorial change | - entry modified and cascading structure adopted for clarity (sub-entries 1. and 2.) - Note modified |
| 8.A.2.r. | - new entry - moved from 6.A.1.c. - reference to 6.A.1.c. replaced by reference to 8.A.2.r. in Notes 1 and 2 |

| Category/Item | Comments |
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| Category 9 | |
| 9.A.1.a. | - reference to 9.E.3.i. added |
| 9.A.3. | - chapeau modified, including adding a reference to 9.E.3.i. |
| 9.B.1., 9.D.4.f., 9.E.3.a.1., 9.E.3.a.4., 9.E.3.a.5. | - "tip shroud" is now a defined term (double quotes) |
| 9.B.2. | - cascading structure adopted for the characteristics of the equipment (sub-paras a. and b.) |
| 9.B.8. | - entry modified |
| 9.D.3. | - entry modified, including deletion of sub-paras. a. and b. |
| 9.E.3.a.2. | - «thermally decoupled combustion liners» reinserted following inadvertent deletion |
| 9.E.3.a.8. | - new Technical Note for the location definition of 'damage tolerant' - «rotating» replaced with «rotor» - «or» added to end of sentence (consequential change) |
| 9.E.3.a.10. | - deleted, including Notes 1 and 2 - Nota Bene added referring to 9.E.3.i. |
| 9.E.3.i. | - new entry, including new Note |
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| Sensitive List | |
| 5.A.1.h. | - new entry |
| 6.A.3.b.4. | - Notes 1 to 4 no longer reproduced in the SL |
| 6.A.6.e. | - new entry |
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| Very Sensitive List | |
| 5.A.1.h. | - new entry |
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| Munitions List | |
| ML2.c. | - entry expanded |
| ML4.b.2. | - all 'activities' referred to in the entry are now included in a new Technical Note as a local definition |
| ML6.b. | - new chapeau - «components» added to sub-para. 1. after «materials» - new sub-para. 2 |
| ML6., Note 2.a. | - «or to run when deflated» deleted |
| ML7.a. – editorial changes | - «and» replaced with «or» - comma added after «materials» |
| ML7.i.2. – editorial changes | - cascading structure adopted for clarity |
| ML8.a.32.g. | - deleted |
| ML8.c.5.b. | - new Note 5 added |
| ML8.f.4.c. | - entry expanded |
| ML16. – editorial change | - entry modified, including new Note |

| Category/Item | Comments |
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| Munitions List cont. | |
| ML19.f. – editorial changes | - «Continuous wave or pulsed» deleted - comma deleted after «"Laser" systems» |
| ML19 Notes 1 and 2 – editorial changes | - in the chapeau to both Notes, «Directed Energy Weapon» is replaced with its abbreviation «DEW» |
| ML19.f., Note 1.a. – editorial changes | - commas deleted after «"Lasers"» and «power» - «continuous wave or pulsed» deleted |
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| Definitions | |
| "Cryptographic activation" | - new definition |
| "Frequency switching time" | - definition rewritten |
| "Frequency synthesizer" | - «or signal generator» deleted from definition |
| "Information security" | - "Cryptographic activation" added to list of functions in the definition |
| "Object code" | - «converted» replaced with «compiled» |
| "Radiant sensitivity" | - new definition |
| "Tip shroud" | - new definition |
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| SOUs and Validity Notes | |
| Dual-Use List | - New SOU for «used goods» |
| Category 5 – Part 2 | - Validity Note for 5.A.2.a.7. renewed |
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