

SUMMARY OF CHANGES

LIST OF DUAL-USE GOODS & TECHNOLOGIES AND MUNITIONS LIST

as of 14 December 2011

The following table outlines the changes made to the 2010 List of Dual-Use Goods & Technologies and Munitions List ([WA-LIST \(10\) 1 Corr.](#)). However, the table should be used only as a reference. The changes include all agreed Experts Group amendments as of 14 December 2011.

Category/Item	Comments
GTN/GSN	
	- no change
Category 1	
1.A.4.a. Note	- new Note for Powered Air Purifying Respirators (PAPR)
1.A.5.	- chapeau amended - new paras. a. and b. added for soft and hard body armour - new Nota Bene 2 (existing N.B. numbered 1) - Note 1 amended (protective garments deleted) - new Note 3
1.C.6.d.	- new Note to exclude medical products
1.C.8.a.4.	- 'glass transition temperature (Tg)' changed from 513 K (240°C) to 563 K (290°C)
1.C.8.f.	- 'glass transition temperature (Tg)' changed from 513 K (240°C) to 563 K (290°C)
Annex – "Explosives"	- 32.g. entry deleted
Category 2	
2.B. Technical Note 5; 2.B. Technical Note 5.b.; 2.B.1.a.1.; 2.B.1.b.1.a.; 2.B.1.b.3.; 2.B.1.c.1.a.; 2.B.1.c. Note b.;	- year of ISO reference updated from 1997 to 2006

Category/Item	Comments
Category 2 cont.	
2.B. Technical Notes	- new Technical Note 6 regarding measurement uncertainty
2.B.1.a.1.; 2.B.1.b.1.a.; 2.B.1.c.1.a.	- «along any linear axis» amended to read « along one or more linear axis»
2.B.8.a. and 2.B.8.b.	- parenthetical phrase after «feedback units» deleted - new Note to cover the items deleted from parenthetical phrase
2.B.9.a.	- entry amended
2.E.1.	- new Note regarding "technology" for integration of probe systems
Category 3	
3.A. Note 1, Note 2 and N.B.	- reference to 3.A.1.a.13. added
3.A.1.a.13.	- new entry for Direct Digital Synthesizer integrated circuits, including a Technical Note for DAC clock frequency
3.A.1.b.10.	- «designed» replaced by «specified» in the chapeau
3.A.1.b.11.	- sub-paragraph e. amended - new sub-paras f. and g. - «or» moved from the end of sub-para d. to the end of sub-para f. (consequential change)
3.A.1.e.1.b.	- parameter changed from 250 to 300 Wh/kg
3.A.2.d.1.	- entry amended, including new sub-paragraphs a. and b.
3.A.2.d.4.	- entry amended, including sub-paras a. and b.
Technical Notes at end of 3.A.2.d.	- Technical Note 1 amended - Technical Note 2 – reference amended to 3.A.2.d.1.a. (consequential change)
3.A.2.e.1.	- entry amended
3.A.2.f.1.	- parameter changed from 43.5 GHz to 70 GHz
3.B.1.d.	- entry deleted
3.C.1.d.	- new exclusion Note added
3.E.3.b.	- «electronic» added after «semiconductor»
Category 4	
4.A.3.a.	- entry deleted including the Note and the definition for "fault tolerance"
4.A.3.b.	- parameter changed from 1.5 to 3.0 Weighted TeraFLOPS.
4.D., Note	- «the "development", "production", or "use" of» deleted
Technical Note on 'APP' Note 6	- cascaded structure adopted for clarity - new Technical Note added

Category/Item	Comments
Category 5 – Part 1	
N.B.2 at start of Category	- comma added after "software"
5.A.1.b.3.b., Note	- Note amended, including new paragraphs a. and b.
5.A.1.i.	- new entry concerning 'mobile telecommunications', including a Note, Technical Note, Nota Bene and a Validity Note
5.B.1.b.2.c.	- parenthetical phrase deleted - new Note and new Technical Note
5.B.1.b.5.	- entry deleted (definition for "common channel signalling" also deleted) - «or» moved from the end of 5.B.1.b.4. to the end of 5.B.1.b.2.d. (consequential change)
5.E.1.b.4, Note.	- Note amended, including new paragraphs a. and b.
5.E.1.c.1.	- parameter changed from 50 to 120 Gbit/s
5.E.1.c.2.c.	- parenthetical phrase deleted - new Note and new Technical Note
5.E.1.c.5.	- entry deleted - «or» moved from the end of 5.E.1.c.5. to the end of 5.E.1.c.4.c. (consequential change)
Category 5 – Part 2	
5.A.2.a.8.	- new Note referring to physical layer security
5.D.2., Note	- Note deleted
Category 6	
6.A.1.a.1.b.	- entry amended (chapeau only)
6.A.1.a.2.a.	- new Technical Note for hydrophones
6.A.1.a.2.b.	- new Technical Note for hydrophone arrays
6.A.1.a.2.e.	- «systems» replaced by «hydrophone arrays» - bay-cable (hyphen inserted)
Category 7	
7.A.4.	- entry amended, including new paragraphs a. and b. and Technical Note
7.D.2.	- "use" replaced by «operation or maintenance in the chapeau and in the Note»
7.D.3.d.7.	- «Raster-type head-up displays» deleted from entry
7.E.4.a.1.	- entry deleted
Category 8	
8.A.2.c.	- «pressure» added before «hull penetrators» and «connectors» deleted

Category/Item	Comments
Category 9	
9.A.12.	<ul style="list-style-type: none"> - entry rewritten to include «unmanned "airships"» in the chapeau, and in paragraphs a., b.1., b.2., b.3., and b.4. - «a manned "airship"» has been added to b.3. - «and» replaced by «or» between equipment or components in b.3. - «or model "airships"» added to the Note - new definition for "Airship"
9.D.4.d.	- entry deleted, including the Note
9.D.4.e.	- "use" replaced by «operation»
9.E., Note	- «when used as "use" "technology" for repair, rebuild and overhaul» amended to read «when used for repair or overhaul »
9.E.3.a.2.	- entry rewritten, including new paragraphs a. to d., a new Note, Technical Note and Nota Bene
9.E.3.c.	- entry completely rewritten, including new paragraphs 1. and 2., a new Note and Technical Notes 1 to 4
Sensitive List	
2.D.1.a.1.; 2.D.1.b.1.a.; 2.D.1.b.2.; 2.D.1.b.3.; 2.E.1.a.1.; 2.E.1.b.1.a.; 2.E.1.b.2.; 2.E.1.b.3.; 2.E.2.a.1.; 2.E.2.b.1.a.; 2.E.2.b.2.; 2.E.2.b.3.	- year of ISO reference updated from 1997 to 2006 (consequential change of agreements in the Dual-Use List)
3.B.1.a.2.	- entry deleted
6.A.1.a.1.b.	- chapeau amended (consequential change of agreement in the Dual-Use List)
6.A.1.a.2.e.	<ul style="list-style-type: none"> - «systems» replaced by «hydrophone arrays» - bay-cable (hyphen inserted) (consequential changes of agreements in Dual-Use List)
6.A.8.1.3.	- entry deleted (Dual-Use List entry was already deleted in 2010)
7.D.2.	- "use" replaced by «operation or maintenance» (consequential change of agreement in Dual-Use List)
Very Sensitive List	
6.A.1.a.1.b.1.	- chapeau amended (consequential change of agreement in Dual-Use List)
6.A.1.a.2.e.	<ul style="list-style-type: none"> - «systems» replaced by «hydrophone arrays» - bay-cable (hyphen inserted) (consequential changes of agreements in Dual-Use List)
6.A.8.1.3.	- entry deleted (Dual-Use List entry was already deleted in 2010)

Category/Item	Comments
Munitions List	
ML2., Note 2	- paragraph numbers replaced by letters (editorial change) - commas added after «carbines» in paras a. and b. - new paragraph c.
ML6.	- new Note 4
ML8.f.3.	- CAS number deleted
ML8.	- new exclusion Note 7 for ammonium perchlorate and NTO
ML10.	- entry amended, including the chapeau and paras a., b., c., d. & i. - reference to «ML10.b.» deleted from paras e. and f. - Note 1 chapeau amended, including addition of "lighter-than-air vehicles" and new para a. added (other paras relettered b. and c.) - «unmanned airborne vehicles» replaced by «"UAVs"» in Note 2.b. - Note 3 slightly reworded for clarity and reference to ML10.b. replaced by reference to ML10.a. - new Notes 4 and 5
ML13.	- new Nota Bene after paragraph a. - paragraph d. rewritten, including new sub-paras 1. and 2. for soft and hard body armour and a new Note to paragraph d.1.
Definitions	
"Airship"	- new definition
"Average output power"	- definition amended
"Common channel signalling"	- definition deleted
"Fault tolerance"	- definition deleted
"Laser duration"	- definition deleted
"Peak power"	- definition amended
"Pulse duration"	- definition amended
"Unmanned aerial vehicle" ("UAV")	- reference to ML included in addition to Cat 9
SOUs and Validity Notes	
3.A.1.h.	- Validity Note deleted
5.A.1.i.	- new Validity Note
5.D.2., Note	- Validity Note deleted
6.A.5.d.1.d.1.d.	- Validity Note extended until 31 Dec. 2013