EXPLANATORY STATEMENT

ISSUED BY THE AUTHORITY OF THE MINISTER FOR DEFENCE

CUSTOMS ACT 1901

Defence and Strategic Goods List Amendment 2010

The Defence and Strategic Goods List Amendment 2010 (the List) is the document formulated and published under paragraph 112(2A)(aa) of the *Customs Act 1901* by the Minister for Defence. The List identifies the goods which Regulation 13E of the *Customs (Prohibited Exports) Regulations 1958* prohibits from being exported from Australia unless a licence or permission has been granted by the Minister or an authorised person and that licence or permission is produced to a Collector of Customs before exportation.

The List embodies the export control guidelines developed by the multilateral non-proliferation and export control regimes of which Australia is a member. These regimes include the Wassenaar Arrangement, the Missile Technology Control Regime, the Australia Group and the Nuclear Suppliers Group. The List is therefore a complete and accurate collection of all international export control changes as at mid 2008 that Australia has agreed to implement.

The List was first published in 1996 when the *Customs (Prohibited Exports) Regulations 1958* were consolidated and revised. The List includes equipment, assemblies and components, associated test, inspection and production equipment, materials, software and technology. It is divided into two Parts.

Part 1 covers defence and related goods – those goods and technologies designed or adapted for use by the armed forces or goods that are inherently lethal. These goods include:

- Military Goods, that is, those goods or technology that are designed or adapted for military purposes including parts and accessories thereof; and
- Non-Military Lethal Goods, that is, equipment that is inherently lethal, incapacitating or destructive such as non-military firearms, non-military ammunition and commercial explosives and initiators.

Part 2 covers those goods that have a dual use. Dual-use goods comprise equipment and technologies developed to meet commercial needs but which may be used either as military components or for the development or production of military systems or weapons of mass destruction. Part 2 is further subdivided into 10 categories –

- Category 0 – Nuclear Materials;
- Category 1 – Materials, Chemicals, Micro-organisms and Toxins;
- Category 2 – Materials Processing;
- Category 3 – Electronics;
- Category 4 – Computers;
- Category 5 – Telecommunications and Information Security
- Category 6 – Sensors and Lasers;
- Category 7 - Navigation and Avionics;
- Category 8 – Marine;
- Category 9 – Aerospace and Propulsion.

The List is amended from time to time to reflect changes in multilateral non-proliferation and export control regimes. The List is fully aligned with the European Union Dual-Use List and the Wassenaar Arrangement Munitions List revised as at mid 2008.

The Defence Export Control Office (DECO) is responsible for administering controls on the export of defence and dual-use goods, and the granting of authorisations to export, in the form of permits and licences. DECO's mission is to ensure Australia exports responsibly and detailed information on its roles and functions is available on the Internet at: http://www.defence.gov.au/strategy/deco/

There are 23 new export controls incorporated into the proposed DSGL Amendment 2010 which require exporters to seek a permit or licence prior to exporting the goods out of Australia. There may be additional administrative requirements and compliance conditions associated with these controls, such as exporters having to submit new export applications attached to any permit or licences.

For the majority of the new export controls, as there are no known Australian manufacturers or exporters, a negligible impact on industry is anticipated. Despite the lack of Australian manufacturers, some currently uncontrolled imported items may require export authorisation in the future. These exports are typically returns for warranty repair or servicing. Such exports would be routine in handling and expected to be small in number.

The Office of Best Practice Regulation (OBPR) has been consulted in the making of this instrument. Based on the preliminary impact analysis submitted by the DECO, the OBPR agreed that the proposed amendments have no, or low impact on business and individuals or the economy. Therefore, no further analysis in the form of a Business Cost Calculator or Regulatory Impact Statement is required. The OBPR Reference Number is 10142.

The expanded or new controls represent less than 0.5% of the total number of Australian defence and strategic export controls. The changes to export controls are listed and analysed for impact in the section below.

ANALYSIS OF THE CHANGES TO DSGL AMENDMENT 2007

The last amendment to the List was made in October 2007. The Defence and Strategic Goods List Amendment 2010 reflects technology, non-proliferation and export control variations introduced from 2007 up to mid 2008. These variations do not substantially alter the List's nature or overall content. The amendments with potential consequence for exporters comprise the following:

PART ONE

New Munitions List controls on:

- Civil Aircraft Missile Protection Systems
  These systems, which provide civil aircraft with a self-protection capability against Man-Portable Air Defence Systems (MANPADS) missiles, are not manufactured in, or exported from, Australia
  Predicted impact on exporters: Nil

- Equipment specially designed for jamming, detonating, disrupting, or detecting Improvised Explosive Devices
  This highly specialised equipment is not known to be manufactured in Australia. Possible exports in support of ADF or AFP operations overseas would not be controlled.

Predicted impact on exporters: Nil

- High powered air guns having specific performance characteristics, but excluding airsoft guns, paintball guns and projectiles for these
  This new control replaces the current non-specific entry on "air weapons", effectively reducing the scope of control.
  Predicted impact on exporters: Nil

PART TWO

New Dual-use List controls on:

- Accelerometers with the following characteristics:
  - Designed for use in inertial navigation systems or guidance systems of missiles
  - A bias repeatability of better than 1,250 micro g
  - A scale factor repeatability of better than 1,250 ppm

  These items are not known to be manufactured in Australia.
  Predicted impact on exporters: Nil

- Improvised Explosive Devices disposal equipment comprising remotely operated vehicles and disruptors (devices which prevent the operation of an explosive device by projecting a liquid, solid or frangible projectile)
  The introduction of controls on Improvised Explosive Device disposal equipment is simply an extension of existing controls on military explosive ordnance disposal equipment. Exports in support of ADF or AFP operations overseas would not be controlled.
  Predicted impact on exporters: Negligible

- Explosive detonator firing sets designed to initiate the following types of electric detonators:
  - Exploding bridge
  - Exploding bridge wire
  - Slapper
  - Exploding foil initiators

  This specialised equipment, not known to be manufactured in Australia, can be used to set-off explosives and Improvised Explosive Devices. Possible exports in support of ADF or AFP operations overseas would not be controlled.
  Predicted impact on exporters: Nil

- Four (or more) axis numerically controlled optical finishing machine tools using:
  - Inflatable membrane tool finishing
  - Fluid jet finishing

  These optical finishing tools using the specified techniques have a military application in the machining of infra-red missile seeker domes. Machine tools of this type are not known to be manufactured in Australia.
  Predicted impact on exporters: Nil

- Semiconductor resist materials designed or optimised for use with imprint lithography equipment that use either a thermal or photo-curable process
  These materials may also be used in the fabrication of specially designed military semiconductor devices.
  Predicted impact on exporters: Negligible

- Semiconductor substrates with at least one epitaxial layer of silicon carbide, gallium nitride, aluminium nitride or aluminium gallium nitride
  These semiconductor materials have military utility in microwave radar applications.
  Predicted impact on exporters: Negligible

- Telecommunications systems using lasers or light-emitting diodes with an output wavelength between 400 nm and 700 nm, in a local area network
  These systems have significant military application, especially in point-to-point underwater communications networks. These systems are not known to be manufactured in Australia.
  Predicted impact on exporters: Nil

- Image intensifier tubes incorporating an electron sensing device to achieve charge multiplication, other than by a microchannel plate
  Apart from civil applications, these image intensifier tubes are also used in military night vision equipment. These items are not known to be manufactured in Australia.
  Predicted impact on exporters: Nil

- Non-space-qualified focal plane arrays having all of the following:
  - individual detector elements with a peak response in the wavelength range 400 nm to 900 nm;
  - charge multiplication capability and maximum radiant sensitivity greater than 10 mA/W for wavelengths exceeding 760 nm;
  - more than 32 elements.

  Apart from civil applications, these focal plane arrays are also used in military night vision equipment. These items are not known to be manufactured in Australia.
  Predicted impact on exporters: Nil

- Non-space-qualified focal plane arrays employing charge multiplication, limited to a maximum radiant sensitivity less than 10 mA/W for wavelengths exceeding 760 nm, incorporating a response limiting mechanism whose removal renders the focal plane array inoperable
  Apart from civil applications, these focal plane arrays are also used in military night vision equipment. These items are not known to be manufactured in Australia.
  Predicted impact on exporters: Nil

- Direct view imaging equipment, including imaging cameras, incorporating controlled solid-state detectors
  Apart from civil use, this type of equipment is also used in military imaging applications. These items are not known to be manufactured in Australia.
  Predicted impact on exporters: Nil

- Air breathing reciprocating or rotary internal combustion type engines, specially designed or modified to propel unmanned aerial vehicles at altitudes above 50,000 feet (15,240 metres)
  A clear military use in powering high altitude unmanned aerial vehicles dedicated to surveillance/reconnaissance roles. These items are not known to be manufactured in Australia.
  Predicted impact on exporters: Nil

- Turboprop engine systems specially designed for unmanned aerial vehicles having a maximum power greater than 10 kW

Potential military use in powering unmanned aerial vehicles dedicated to surveillance/reconnaissance, forward air control and area jamming roles. These items are not known to be manufactured in Australia.
Predicted impact on exporters: Nil

Limiting the scope of decontrol on:

- Non-space qualified rubidium frequency standards, which are currently not controlled. The scope of this decontrol is narrowed, releasing from control only those non-space qualified rubidium frequency standards which meet both of the following criteria:
  - Long-term stability not better than 1 x 10-11/month, and
  - Total power consumption more than 1 W

  Potential use in military equipment and platforms, especially in decoding GPS satellite military band signals. These items are not known to be manufactured in Australia.
  Predicted impact on exporters: Nil

Broadening the scope of dual-use controls on:

- Silicon carbide semiconductor wafers having resistivities greater than 10,000 ohm-cm at 20ºC to also include substrates, ingots, boules or other preforms of the new materials:
  - Gallium nitride
  - Aluminium nitride
  - Aluminium gallium nitride

  These new semiconductor materials have military application in high-power microwave devices. The change brings under control new, advanced semiconductor materials not known to be produced in Australia.
  Predicted impact on exporters: Nil

- Jamming equipment designed to interfere with "cellular" mobile telecommunications systems by deleting the "cellular" qualifier for the mobile telecommunications systems
  Jamming equipment of this type is of concern because of its potential use by terrorists. In addition, there is no perceived legitimate civilian application (except by civil/government authorities in prisons, schools and other places of concern). This specialised equipment is not known to be manufactured in Australia.
  Predicted impact on exporters: Nil

- Correlation-velocity and Doppler-velocity sonar log equipment to measure the speed of the equipment carrier relative to the sea bed having speed accuracy better than 1%. Commercial applications, such as fish finding and water depth measurement, are not controlled.
  Potential military use for navigation in underwater vehicles and by divers.
  Predicted impact on exporters: Negligible

- Engines designed or modified for use in missiles, by also including engines designed or modified for use in unmanned aerial vehicles
  Potential military use in powering unmanned aerial vehicles dedicated to military roles, such as surveillance/reconnaissance, forward air control and jamming.
  Predicted impact on exporters: Negligible

Addition of new control parameters on:

- Non-space-qualified focal plane arrays employing charge multiplication and having a maximum radiant sensitivity exceeding 10 mA/W
  Apart from civil applications, high sensitivity focal plane arrays are also used in military night vision equipment. These items are not known to be manufactured in Australia.
  Predicted impact on exporters: Nil

Control parameter changes on:

- Surface acoustic wave and surface skimming acoustic wave devices having
  - A carrier frequency exceeding 6 GHz, instead of the currently specified 2.5 GHz
  - A carrier frequency exceeding 1 GHz, but not exceeding 6 GHz, instead of the currently specified 2.5 GHz
  - A frequency side lobe rejection exceeding 55 dB and a bandwidth greater than 100 MHz instead of the currently specified 50 MHz

- Bulk acoustic wave devices for the direct processing of signals at frequencies exceeding 2.5 GHz, instead of the currently specified 1.0 GHz
  These devices are widely used in military electronic equipment. The control parameter changes simply reflect current 'state-of-the-art' and have no tangible implications.
  Predicted impact on exporters: Nil

The following amendments have no potential consequence for exporters. In addition to those below, the Defence and Strategic Goods List Amendment 2010 also incorporates minor stylistic and grammatical changes in accordance with current government drafting practice.

New Technical Note:

- Charge multiplication is a form of electronic image amplification, defined as the generation of charge carriers from impact ionization gain. Charge multiplication sensors include image intensifier tubes, solid state detectors and focal plane arrays.
  Predicted impact on exporters: Nil

Clarification of existing control text on:

- Non-military weapons accessories by specifying silencers, special gun mountings, clips, weapons sights and flash suppressors. This new control replaces the current non-specific entry on non-military weapons "accessories" with a specific list of controlled accessories, effectively reducing the scope of control.
  Predicted impact on exporters: Nil

- Specially designed robots for explosive munitions environments, clarifying that this control does not apply to robots designed for paint-spraying booths
  Predicted impact on exporters: Nil

- The "usable in missiles" qualifier for liquid rocket components is refined as follows:
  - Ablative liners for thrust or combustion chambers, usable in missiles, space launch vehicles or sounding rockets
  - Rocket nozzles usable in missiles, space launch vehicles or sounding rockets
    Predicted impact on exporters: Nil

- Gas turbine blade production technology control parameters of gas path temperature now specify that gas path temperature is the total (stagnation) temperature. Further clarification of the controls is provided in the new Technical Note defining gas turbine engine “steady state mode” operating conditions.
  Predicted impact on exporters: Nil

Clarification of existing decontrol text on:

- Portable or mobile radiotelephones for civil use which:
  - are not capable of transmitting encrypted data directly to another radiotelephone, and
  - which implement only commercial cryptographic standards

  are not controlled
  Predicted impact on exporters: Nil

- Non-imaging type photomultiplier tubes with a single metal anode, or metal anodes with a centre to centre spacing greater than 500 µm, are not controlled
  Predicted impact on exporters: Nil

- Compound semiconductor photocathodes having a maximum radiant sensitivity of:
  - 10 mA/W or less at the peak response in the wavelength range 400 nm to 1,050 nm; or
  - 15 mA/W or less at the peak response in the wavelength range 1,050 nm to 1,800 nm

  are not controlled
  Predicted impact on exporters: Nil

- Non-space-qualified linear (1-dimensional) focal plane arrays having 32 or less germanium detector elements are not controlled
  Predicted impact on exporters: Nil

- Imaging cameras incorporating focal plane arrays, having any of the following, are not controlled:
  - integrated into indoor equipment for:
    - industrial applications,
    - scientific research,
    - medical use,
    - financial fraud detection, and
  - is only operable when installed in:
    - the equipment for which it was intended, or
    - an authorised maintenance facility, and
  - incorporates a mechanism that forces the camera not to function when it is removed from the equipment for which it was intended.
- Designed for installation into a civilian passenger vehicle or a ferry, and
  - is only operable when installed in:
    - the civilian passenger vehicle or a ferry, or
    - an authorised maintenance facility, and
  - incorporates a mechanism that forces the camera not to function when it is removed from the vehicle for which it was intended.
- Limited by design to have a maximum radiant sensitivity of 10 mA/W or less for wavelengths exceeding 760 nm, and incorporating:
  - a response limiting mechanism designed not to be removed, and
  - a mechanism that forces the camera not to function when the response limiting mechanism is removed, or

- Having all of the following:
  - not incorporating a direct view or electronic image display,
  - no facility to output a viewable image of the detected field of view,
  - the focal plane array is only operable when installed in the camera for which it was intended, and
  - the focal plane array incorporates a mechanism that forces it to be permanently inoperable when removed from the camera for which it was intended

  Predicted impact on exporters: Nil

Deletion of controls on:

- Neural network microprocessor integrated circuits
  Predicted impact on exporters: Nil

- Towed acoustic hydrophone arrays capable of operating at depths exceeding 35 m
  Predicted impact on exporters: Nil

Decontrol of medical equipment:

- Equipment and software specially designed for medical end-use, incorporating an item subject to encryption controls, is not controlled
  Relaxation of existing control.
  Predicted impact on exporters: Nil

Narrowing of the scope of controls on:

- Equipment for mask making or semiconductor device processing is narrowed to those using direct writing methods
  Relaxation of existing control.
  Predicted impact on exporters: Nil

- Telecommunications systems by specifying untethered underwater communications systems, instead of all underwater communications systems of specific characteristics
  Relaxation of existing control.
  Predicted impact on exporters: Nil

Deletion of control parameter:

- The qualifier of “operating in the visible or infrared spectrum” for direct view imaging equipment is deleted
  Clarification of existing control text.
  Predicted impact on exporters: Nil

The DSGL Amendment 2010 instrument is a legislative instrument for the purposes of section 42 of the Legislative Instruments Act 2003 and is subject to tabling and disallowance.

The List will commence on the day after it is registered on the Federal Register of Legislative Instruments.

Attachment B

BACKGROUND INFORMATION

1. The Defence and Strategic Goods List Amendment 2010 (the DSGL Amendment 2010) is a complete and accurate collection of all the export control changes as at mid 2008 that Australia has agreed to implement. The amendments reflect revised controls introduced by multilateral regimes in which Australia participates. The amendments do not substantially alter the DSGL's nature or overall content and so, according to advice received from the Office of Best Practice Regulation, a Regulatory Impact Statement is not required.

2. The regular updating of the DSGL involves the adoption of amendments to export controls on:

    - conventional arms, reflected in the Wassenaar Arrangement Munitions List; and
    - dual-use goods and technologies, introduced by the Australia Group, Nuclear Suppliers Group, Missile Technology Control Regime and the Wassenaar Arrangement.

3. The DSGL Amendment 2010 is fully aligned with the European Union Dual-Use List and the Wassenaar Arrangement Munitions List revised till mid 2008. The European Union's Dual-Use List consolidates all updated dual-use controls and serves as the source document for Part Two of the DSGL (Dual-Use List). Similarly, the Wassenaar Arrangement Munitions List is the basis of Part One of the DSGL (Munitions List). The DSGL has some minor additional controls that are unique to Australia, including non-military lethal goods (such as non-military firearms), and two dual-use chemical weapon precursor chemicals.

4. The DSGL Amendment 2010 reflects technology, non-proliferation and export control variations introduced since the last DSGL Amendment 2007. These variations fall into the following categories:

    - Introduction of the following new controls, in response to emerging technologies, originating from multilateral non-proliferation and export control regimes of which Australia is a member:
        - Civil Aircraft Missile Protection Systems
        - Accelerometers for use in missiles
        - Equipment specially designed for jamming, detonating, disrupting, or detecting Improvised Explosive Devices (IED)
        - IED disposal equipment comprising remotely operated vehicles and disruptors, which prevent the functioning of an IED
        - Explosive detonator firing sets

- Four or more axis numerically controlled optical finishing machine tools
- Semiconductor resist materials designed or optimised for use with imprint lithography equipment
- Semiconductor substrates with at least one epitaxial layer of silicon carbide, gallium nitride, aluminium nitride or aluminium gallium nitride
- Telecommunications systems using lasers or light-emitting diodes in a local area network
- Image intensifier tubes incorporating an electron sensing device to achieve charge multiplication
- Non-space-qualified focal plane arrays of certain characteristics
- Direct view imaging equipment, including imaging cameras, incorporating controlled solid-state detectors
- Air breathing reciprocating or rotary internal combustion type engines, specially designed or modified to propel Unmanned Aerial Vehicles (UAVs) at altitudes above 50,000 feet (15,240 metres)
- Turboprop engine systems specially designed for UAVs having a maximum power greater than 10 kW

- Clarification of the Australia-unique control on high-powered air guns:
  - High-powered air guns, but excluding airsoft guns and paintball markers

- Removal of the following controls that are no longer relevant to non-proliferation aims:
  - Neural network microprocessor integrated circuits
  - Towed acoustic hydrophone arrays capable of operating at depths exceeding 35 metres
  - Equipment and software specially designed for medical end-use, incorporating an item subject to encryption controls, is not controlled

- Adjustment of control parameter thresholds to reflect technological advances; and
- Changes to existing text to improve clarity.

5. A detailed analysis of all changes (with or without potential consequence for exporters) and their predicted impact is provided in the Explanatory Statement attached at B.

6. The List incorporates minor stylistic and grammatical changes to conform to current government drafting practice.

7. The DSGL Amendment 2010 instrument is a legislative instrument for the purposes of section 42 of the Legislative Instruments Act 2003 and is subject to tabling and disallowance.

8. The Instrument will commence on the day after it is registered on the Federal Register of Legislative Instruments.