

## Old Dominion University Research Foundation

### EXPORT CONTROL CHECKLIST for Sponsored Programs

PI: \_\_\_\_\_ College/Dept. \_\_\_\_\_

Project Title: \_\_\_\_\_

Sponsor: \_\_\_\_\_ Sponsor a Foreign Entity? Yes  No

ODU Research Foundation review is required prior to the acceptance of any sponsored research agreement, award, or Non-Disclosure Agreement (or similar agreement) that contains language regarding export controls, publication restrictions, the restriction in any way the involvement of foreign nationals or includes the transfer of any information or items out of the United States. Your responses to the following questions will help the Research Foundation determine whether any aspect of your sponsored research project will be subject to export control regulations. Export control definitions can be found in Attachment 2 to this form. **(If you have questions about this form, please contact the Office of Research at [exportcontrol@odu.edu](mailto:exportcontrol@odu.edu) or 757-686-6279.)**

#### Export Control:

1. Does any of the following potential export control issues apply to the research project?	YES	NO
a. Work conducted outside of the United States?	<input type="checkbox"/>	<input type="checkbox"/>
b. Are you working with a foreign entity?	<input type="checkbox"/>	<input type="checkbox"/>
c. Equipment, materials, technology or software exported outside of the U.S. (Including through email, phone, or FTP.)	<input type="checkbox"/>	<input type="checkbox"/>
d. Travel to Cuba, Iran, North Korea, Russia, or Syria or other sanctions countries? <a href="#">OFAC</a> <a href="#">Embargoed or Sanctioned</a>	<input type="checkbox"/>	<input type="checkbox"/>
e. Involvement of foreign collaborators?	<input type="checkbox"/>	<input type="checkbox"/>
f. Will <b>military</b> (items developed for military, intelligence, or training applications), <b>space</b> , or <b>encryption</b> (other than ancillary encryption capabilities associated with a commercial item) equipment, software, materials, or components be accessed, used, or developed as part of the proposed activities?	<input type="checkbox"/>	<input type="checkbox"/>
g. Does your research involve AI, Machine Learning, Hypersonics or other Emerging Technologies?	<input type="checkbox"/>	<input type="checkbox"/>
h. Does your research involve activities that could be related to nuclear, chemical, or biological weapon or missile technology?	<input type="checkbox"/>	<input type="checkbox"/>
i. Does your research involve any Bio-agents? <a href="#">Toxicological agents</a> <a href="#">Pathogens and Toxins</a>	<input type="checkbox"/>	<input type="checkbox"/>
2. Is this research funded by the Department of Defense or any of its agencies (Army, Navy, Air Force, DTRA, DARPA, etc.), by any intelligence agency (CIA, NSA, IARPA, NRO), or Homeland Security (DHS), either directly or via subaward from a defense contractor company or other research institution?	<input type="checkbox"/>	<input type="checkbox"/>

3. Will the research involve any “dual use” or defense articles or defense services?	<input type="checkbox"/>	<input type="checkbox"/>
4. Is this Applied Research? – see definition in Attachment 2	<input type="checkbox"/>	<input type="checkbox"/>

**Note: If you involving Bio-agents; please indicate here:**

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	YES	NO	Unknown
5. Does your research involve items/articles, software or technology listed on the EAR/Commerce Control List or the ITAR/U.S. Munitions List (see Attachment 1 of this form for general categories on each list).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**If yes, and if known, please list EAR ECCN or ITAR USML Category:**

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**Will this research involve any special equipment or software? Please be as specific as possible.**

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If you have answered yes to any of the above, it is likely that a license would be required or that a license may not be possible. Please contact the Research Foundation to discuss whether your proposed research can proceed.

6. Does your research contract include (check each that applies):	YES	NO
a. restrictions on publication (including reporting of the research results) or presentations at conferences?	<input type="checkbox"/>	<input type="checkbox"/>
b. restrictions on the participation of foreign nationals?	<input type="checkbox"/>	<input type="checkbox"/>
c. export control clauses or references to ITAR and/or EAR?.	<input type="checkbox"/>	<input type="checkbox"/>

If you have answered yes to any of the above questions, 4 or 5, your answers to the next set of questions will assist the Research Foundation in determining if one of the following exclusions/exemptions described below applies. Please note that the exclusions below apply only to technical data and information, and, in some cases, software associated with the research. They do not apply to equipment, articles, services, or encryption software.

### Public Domain Exclusion

7. Is all the information or software involved in your research published and generally accessible to the public through one or more of the following:	YES	NO
a. publication in periodicals, books, print, electronic, or any other media available for general distribution to any member of the public;	<input type="checkbox"/>	<input type="checkbox"/>
b. subscriptions that are available without restriction to any individual who desires to obtain or purchase the published information	<input type="checkbox"/>	<input type="checkbox"/>
c. websites available to the public free of charge or at a cost which does not exceed the cost of reproduction and distribution	<input type="checkbox"/>	<input type="checkbox"/>
d. libraries open to the public, including most university libraries;	<input type="checkbox"/>	<input type="checkbox"/>
e. patents and open (published) patent applications;	<input type="checkbox"/>	<input type="checkbox"/>

f. instruction in general science, math, and engineering principles commonly taught at schools, colleges and universities, and conveying information through courses listed in course catalogues and in associated teaching laboratories of academic institutions; or	<input type="checkbox"/>	<input type="checkbox"/>
g. release at an "open" conference, meeting, seminar, trade show or other open gathering in the U.S., which is generally accessible by the public for a fee reasonably related to the cost and where attendees may take notes and leave with notes.	<input type="checkbox"/>	<input type="checkbox"/>

**Note: If the release occurs outside the U.S., please indicate here:**

### Fundamental Research Exclusion

8. Does the information and software involved in the research meet the following criteria:	YES	NO
a. results from basic and applied research in science and engineering conducted at an accredited institution of higher education located in the U.S.	<input type="checkbox"/>	<input type="checkbox"/>
b. is ordinarily published and shared broadly within the scientific community	<input type="checkbox"/>	<input type="checkbox"/>
c. is <u>not restricted</u> (either by written agreement or by informal understanding) for proprietary reasons or specific national security controls, or subject to specific U.S. Government access and dissemination controls.	<input type="checkbox"/>	<input type="checkbox"/>

By signing this checklist, I acknowledge that I have completely answered the questions to the best of my knowledge and belief based on the most accurate and reliable information available as of the date of the signing of this checklist. I also acknowledge I will inform the Research Foundation if there is a change in my research project that may result in a need to re-evaluate and/or revise the answer to any of the checklist questions.

An accurate narrative description of my research project or statement of work is attached to this form.

**Principal Investigator:** \_\_\_\_\_ **Date:** \_\_\_\_\_

This form and narrative description of the research project/statement of work must be sent to the DivRED Security & Export Control Office for review at [researchsecurity@odu.edu](mailto:researchsecurity@odu.edu)

### *DivRED and ODU RF USE ONLY*

**Does the DivRED indicate that an export license is required?** Yes          No

**Explanation/Comments Below** (attach backup documentation as appropriate):

**Date:** \_\_\_\_\_

**DivRED Official Signature:** \_\_\_\_\_

**If yes:** Director of Sponsored Programs signature is required, and confirms awareness of the export control determination and communication of requirements to the assigned Grant & Contract Administrator. Otherwise Director's signature is not required.

\_\_\_\_\_  
**Director of Sponsored Programs Signature**

## Attachment 1

### EAR AND ITAR CONTROL LISTS BY MAJOR CATEGORIES

#### Commerce Control List (CCL)

#### Export Administration Regulations (EAR)

<https://www.bis.doc.gov/index.php/regulations/export-administration-regulations-ear>

#### See Part 774, Supplement 1

<https://www.bis.doc.gov/index.php/documents/regulation-docs/435-part-774-the-commerce-control-list/file>

Category 0	Nuclear Materials, Facilities & Equipment (and Miscellaneous Items)
Category 1	Materials, Chemicals, Microorganisms, and Toxins
Category 2	Materials Processing
Category 3	Electronics
Category 4	Computers
Category 5	(Part 1) – Telecommunications; (Part 2) Information Security
Category 6	Sensors and Lasers
Category 7	Navigation and Avionics
Category 8	Marine
Category 9	Propulsion Systems, Space Vehicles, and Related Equipment

#### U.S. Munitions List (USML)

#### International Traffic in Arms Regulations (ITAR)

<https://www.ecfr.gov/cgi-bin/text-idx?node=22:1.0.1.13.58&rgn=div5>

#### See Part 121.1

Category I	Firearms, Close Assault Weapons and Combat Shotguns
Category II	Guns and Armament
Category III	Ammunition/ Ordnance
Category IV	Launch Vehicles, Guided Missiles, Ballistic Missiles, Rockets, Torpedoes, Bombs and Mines
Category V	Explosives and Energetic Materials, Propellants, Incendiary Agents and Their Constituents
Category VI	Vessels of War and Special Naval Equipment
Category VII	Tanks and Military Vehicles
Category VIII	Aircraft and Associated Equipment
Category IX	Military Training Equipment and Training
Category X	Protective Personnel Equipment and Shelters
Category XI	Military Electronics
Category XII	Fire Control, Range Finder, Optical and Guidance and Control Equipment
Category XIII	Auxiliary Military Equipment
Category XIV	Toxicological Agents, Including Chemical Agents, Biological Agents, and Associated Equipment
Category XV	Spacecraft Systems and Associated Equipment
Category XVI	Nuclear Weapons, Design and Testing Related Items
Category XVII	Classified Articles, Technical Data and Defense Services Not Otherwise Enumerated
Category XVIII	Directed Energy Weapons
Category XIX	Reserved
Category XX	Submersible Vessels, Oceanographic and Associated Equipment
Category XXI	Miscellaneous Articles

**Emerging Technology**

<https://www.federalregister.gov/documents/2018/11/19/2018-25221/review-of-controls-for-certain-emerging-technologies>

- (1) Biotechnology, such as:
  - (i) Nanobiology;
  - (ii) Synthetic biology;
  - (iv) Genomic and genetic engineering; or
  - (v) Neurotech.
- (2) Artificial intelligence (AI) and machine learning technology, such as:
  - (i) Neural networks and deep learning ( *e.g.*, brain modelling, time series prediction, classification);
  - (ii) Evolution and genetic computation ( *e.g.*, genetic algorithms, genetic programming);
  - (iii) Reinforcement learning;
  - (iv) Computer vision ( *e.g.*, object recognition, image understanding);
  - (v) Expert systems ( *e.g.*, decision support systems, teaching systems);
  - (vi) Speech and audio processing ( *e.g.*, speech recognition and production);
  - (vii) Natural language processing ( *e.g.*, machine translation);
  - (viii) Planning ( *e.g.*, scheduling, game playing);
  - (ix) Audio and video manipulation technologies ( *e.g.*, voice cloning, deepfakes);
  - (x) AI cloud technologies; or
  - (xi) AI chipsets.
- (3) Position, Navigation, and Timing (PNT) technology.
- (4) Microprocessor technology, such as:
  - (i) Systems-on-Chip (SoC); or
  - (ii) Stacked Memory on Chip.
- (5) Advanced computing technology, such as:
  - (i) Memory-centric logic.
- (6) Data analytics technology, such as:
  - (i) Visualization;
  - (ii) Automated analysis algorithms; or
  - (iii) Context-aware computing.
- (7) Quantum information and sensing technology, such as
  - (i) Quantum computing;
  - (ii) Quantum encryption; or
  - (iii) Quantum sensing.
- (8) Logistics technology, such as:
  - (i) Mobile electric power;
  - (ii) Modeling and simulation;
  - (iii) Total asset visibility; or
  - (iv) Distribution-based Logistics Systems (DBLS).
- (9) Additive manufacturing ( *e.g.*, 3D printing);
- (10) Robotics such as:
  - (i) Micro-drone and micro-robotic systems;
  - (ii) Swarming technology;
  - (iii) Self-assembling robots;
  - (iv) Molecular robotics;
  - (v) Robot compliers; or
  - (vi) Smart Dust.
- (11) Brain-computer interfaces, such as

- (i) Neural-controlled interfaces;
  - (ii) Mind-machine interfaces;
  - (iii) Direct neural interfaces; or
  - (iv) Brain-machine interfaces.
- (12) Hypersonics, such as:
- (i) Flight control algorithms;
  - (ii) Propulsion technologies;
  - (iii) Thermal protection systems; or
  - (iv) Specialized materials (for structures, sensors, etc.).
- (13) Advanced Materials, such as:
- (i) Adaptive camouflage;
  - (ii) Functional textiles ( *e.g.*, advanced fiber and fabric technology); or
  - (iii) Biomaterials.
- (14) Advanced surveillance technologies, such as:
- (15) Faceprint and voiceprint technologies.

## Attachment 2

### DEFINITIONS

**Export:** (EAR 734.2(b)(1), ITAR 120.17) In general, an export includes any (1) actual shipment or transmission of items out of the United States. Includes standard physical movement of items across the border by truck, car, plane, rail, or hand-carry; (2) Technology and software disclosed through email, telephone discussions, fax, posting to the internet; or (3) any release or disclosure, including verbal disclosures or visual inspections, of any technology, software or technical data to any Foreign National/Person. An export may also include the actual use of an application, software, or service by a foreign national abroad. Complete definitions of the term “Export” are contained within the regulations cited below. These regulations should be consulted when determining whether a particular course of action will constitute an export under those regulations. (Remember, discussion of the material with a Foreign National/Person, regardless of the country of which the individual is a citizen, constitutes export.)

**ReExport:** The shipment or transfer to a third country of goods, technology, or software originally exported from the United States.

**Deemed Export:** EAR 734.2(b)(2)(ii) and ITAR 120.17; the release of technology to a foreign person in the United States. Deemed exports may occur through release to foreign national employees, foreign students or scholars conducting research, visiting scholars, demonstrations, trade shows, conferences, oral briefings, telephone calls or messages, faxes, as well as the electronic transmission of non-public data or posted non-public data on the internet.

Whenever research occurs in the U.S. but is related to controlled equipment or technology, a foreign student’s or researcher’s involvement may trigger a deemed export.

**Basic Research:** Basic research is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts.

**Applied Research:** original investigation undertaken in order to acquire new knowledge and directed primarily towards a specific practical aim or objective.

**Dual Use:** Goods, software, and technology that have both civilian and military use cases.

**Defense Articles:** Any item or technical data that is specifically designed, developed, configured, adapted, or modified for a military, missile, satellite, or other controlled use listed on the USML. Defense articles also include things such as models, mock-ups, or other items, i.e. technical data related to items.

Note that sometimes defense articles include items not listed on the USML.

**Defense Services:** Providing assistance, including training, to a foreign person, whether in the United States or abroad in the design, manufacture, installation, repair, or operation of a defense article, as well as providing technical data. Defense services also include informal collaboration, conversations, or interchanges concerning technical data.

**Emerging Technology:** Recently developed or developing technologies not currently controlled for export that are essential to the national security of the United States and warrant implementation of export controls. [Emergency Technology List](#)

**Person:** Person means a natural person as well as a corporation, business association, society, trust, or any other entity, organization or group, including government entities.

**U.S. Person:** Any individual who is granted U.S. citizenship; any individual who is granted U.S. Permanent resident (“Green Card” holder); any individual who is granted status as a “protected person” under 8 U.S.C. 1324b(a)(3); any corporation/business/organization, group incorporated in the United States Under U.S. law; any part of the U.S. government.

**Foreign National/Person:** Any individual who is not a U.S. citizen; any individual who is not a U.S. permanent resident; any individual who is not a protected individual (e.g., refugees or have political asylum); any foreign corporation/business/organization/group not incorporated or organized under U.S. law; foreign government and any agency or subdivision of foreign governments (e.g. diplomatic missions). (A Foreign National/Person is a person who has not been issued a “green card” by the U.S. government or who possesses only a student visa.)

Note: if the individual is not a U.S. person when applying “deemed export” rules, the EAR looks at the person’s most recent citizenship or permanent residence, whereas the ITAR looks at the person’s country of origin (i.e., country of birth) and all current citizenships.

**International Traffic in Arms Regulations (ITAR):** The ITAR is composed of published regulations and guidelines concerning the Department of State review of regulated exports. ITAR applies to defense articles and services, including any technical data associated with such defense articles and services. The ITAR generally refers to items that have military usage only. A list of regulated defense articles is contained in ITAR, and is commonly referred to as the U.S. Munitions List (USML). ITAR and the USML are updated and re-published annually in the Code of Federal Regulations. The current ITAR is published in [22 CFR §§ 120-125](#) (Foreign Relations). The complete USML is published in [22 CFR §121.1](#). Additional provisions in ITAR further define and categorize the items listed in the USML. The complete text of ITAR and the USML are available online at the at <https://www.ecfr.gov/cgi-bin/text-idx?node=22:1.0.1.13.58&rgn=div5>

**Export Administration Regulations (EAR):** The EAR is composed of published regulations and guidelines concerning the Department of Commerce review of regulated exports. The EAR generally refers to items that have “dual use,” i.e. both military and commercial applications. Goods and services that are regulated by the EAR are listed in the Commerce Control List (CCL). The EAR and CCL are updated and re-published annually in the Code of Federal Regulations. The current EAR is published in [15 CFR §§ 730-774](#) (Commerce and Foreign Trade). The complete CCL is published in [15 CFR § 774, Supp. 1](#). The complete text of the EAR and the CCL is available online at <https://www.bis.doc.gov/index.php/regulations/export-administration-regulations-ear>

**Commodity Jurisdiction Ruling:** Where an article is arguably covered by both the EAR and ITAR, a request can be made to the State Department to determine which agency will have jurisdiction over the export of the article.

**Publicly Available (EAR):** Technical data and software are not subject to the EAR, so absolutely no restrictions apply to them; except for software classified under 5D002 of the Commerce Control List (CCL). Public domain. In order to meet the publicly available exclusion in the EAR the research must be “published” (EAR 734.7), “resulting from fundamental research” (EAR 734.8), Educational information (EAR 134.9), Patent applications (EAR 134.10), or Unrestricted government research (EAR 134.11).

“*Published*” is when the research becomes generally accessible to the interested public, in any form, including: publication in periodicals, books, print, electronic and available for free or nominal cost; available in libraries open to public; published patent and applications; released at open conferences, seminar, trade show. Software is “published” when it is available for general distribution either for free or at nominal cost.

“*Resulting from fundamental research*” is when basic and applied research in science and engineering, where

the resulting information is ordinarily published and shared broadly within the scientific community. Fundamental research must meet two criteria:

- Basic and Applied Research
- The researchers must be free to share the results of the research, so no restriction on publication is permitted.

Research is not considered “fundamental research” if the university or its researchers accept (at the request, for example, of a sponsor) other restrictions on the publication of scientific and technical information resulting from the project or activity. EAR 734.8(b)(5).

An acceptable restriction is a prepublication review by a sponsor of university research solely to ensure that the publication would not: “inadvertently divulge proprietary information that the sponsor has furnished to the researchers” (EAR 734.8(b)(2)) or “compromise patent rights” (EAR 734.8(b)(3))

NOTE: Tangible products of fundamental research (models, instruments, devices) are subject to export controls and will require a review. Only data and information resulting from the research are fundamental; some items used for the research could remain subject to the controls, and release to a foreign person would be deemed export. Fundamental Research can be conducted only in the U.S. The exemption does not apply abroad, e.g. does not apply to a laboratory or field research site in another country outside of the U.S. Proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary reasons or specific national security reasons as defined in Sec. 734.11(b).

“*Unrestricted government research*” (EAR 734.11): Research conducted in an open setting where the researchers are free to share the results without restriction among the scientific community. If “specific national security controls are agreed on to protect information resulting from the research”, the publicly available status doesn’t apply. The research will be subject to the EAR.

**Publicly Domain (ITAR):** Information that is published and which is generally accessible or available to the public. However, the ITAR is more restrictive as it specifically designates what is covered by the Public Domain definition and, therefore not subject to the ITAR requirements.

*Information published and accessible to the public:* through sales at newsstands and bookstores, through subscriptions, through second class mailing privileges granted by the U.S. Government, at libraries open to the public or from which the public can obtain documents, through patents, through unlimited distribution at a conference, meeting, seminar, trade show or exhibition, generally accessible to the public, in the United States, through public release in any form and through Fundamental Research.

*Fundamental Research* is defined as “basic and applied research in science and engineering [at accredited institutions of higher learning in the U.S.] where the resulting information is ordinarily published and shared broadly within the scientific community.

- Must be at an accredited institution of higher education
- Results must be published and share broadly, so no restrictions is permitted
- Not fundamental if:
  - Research takes place outside the University. Example: Research conducted by an ODU research team at a commercial lab would not be considered fundamental research if the technology is subject to the ITAR.
  - The University or researchers accept any restrictions on publication. ITAR 120.11 (8) (i)
  - The research is funded by the U.S. Government and specific access and dissemination controls protecting information resulting from the research are applicable. ITAR 120.11 (8) (ii)

NOTE: The fundamental research exemption does not cover the actual physical export of covered equipment, software, materials, or biological agents.