Export Controls & International Travel Update

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Export Controls – Defense Articles and Services

**International Traffic in Arms Regulations (ITAR)** administered by the Office of Defense Trade Controls of the U.S. Department of State controls the export of "defense articles" and "defense services".

- "**Defense articles**" include any item or technical data on the United States Munitions List (USML)
- "**Defense services**" include the furnishing of assistance to foreign persons, whether or not in the United States, with respect to defense articles, and the furnishing of any technical data associated with a defense article.
Dual Use

Export Administration Regulations (EAR) administered by the Bureau of Industry and Security (BIS) of the U.S. Department of Commerce

• All **U.S. origin items, software and technology** (with certain exemptions).
• “**Dual use**” items, software and technologies (i.e. have the potential to be used for military as well as non-military purposes) if such export could adversely affect the national interests of the United States. Dual Use items, software technology are listed in the Commerce Control List (CCL).
Munitions List

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  Surface Vessels of War and Special Naval Equipment
Category VII  Ground Vehicles
Category VIII  Aircraft and Related Articles
Category IX  Military Training Equipment and Training
Category X  Personal Protective Equipment
Category XI  Military Electronics
Category XII  Fire Controls, Laser, Imaging and Guidance Equipment
Category XIII  Materials and Miscellaneous Articles
1. The Project Proposal Summary states as follows:
"Specifically, a set of two gliders will be re-engineered for almost year-long, autonomous deployment using only subsurface acoustic communications. The new capabilities will include an upward surface obstacle avoidance (ice or ships) capability and subsurface acoustic navigation, allowing the glider to stay submerged for length periods of time, collecting hydrographic data at a spatial resolution of meters and temporal resolution of minutes."

2. The Project Description States:
"The target Greenland fjord dimensions, specifically 10 km by 60 km, in 900 m water depth, argues for use of a Low Frequency (LF) DAT, which operates in a 9 - 14 kHz band, and which therefore provides for maximum communications/positioning among assets."

and

Dual altimeters: The vehicle will be equipped with a second, upward facing, altimeter, and behaviors added to use it for surface object avoidance (ice or ships).
ITAR regulations (Munitions List) that *may* be applicable:

**Category VI**—Surface Vessels of War and *Special Naval Equipment*
(f) Vessel and naval equipment, parts, components, accessories, attachments, associated equipment, and systems, as follows:
*(4) Control and monitoring systems for autonomous unmanned vessels capable of on-board, autonomous perception and decision-making necessary for the vessel to navigate while avoiding fixed and moving hazards, and obeying rules-of-the road without human intervention;

**Category XI**—Military Electronics
(a) Electronic equipment and systems not included in Category XII of the U.S. Munitions List, as follows:
*(1) Underwater hardware, equipment, or systems, as follows:
(i) Active or passive acoustic array sensing systems or acoustic array equipment capable of real-time processing that survey or detect, and also track, localize (i.e., determine range and bearing), classify, or identify, surface vessels, submarines, other undersea vehicles, torpedoes, or mines, having any of the following:
(C) Operating bandwidth greater than 10 kHz; and
(vi) Autonomous systems and equipment that enable cooperative sensing and engagement by fixed (bottom mounted/seabed) or mobile Autonomous Underwater Vehicles (AUVs);

§123.11 Movements of vessels and aircraft covered by the U.S. Munitions List outside the United States.
(a) A license issued by the Directorate of Defense Trade Controls is required whenever a privately-owned aircraft or vessel on the U.S. Munitions List makes a voyage outside the United States.
NYU Abu Dhabi Research Intended for Publication

This research examines the concept of an unmanned robotic team, consisting of multiple unmanned aerial vehicles (UAVs) and an unmanned ground vehicle, and proposes a strategy that addresses their collaborative navigation problem. The purpose of such a team is to exploit the technical advantages of differentiated unmanned vehicle classes in an approach that benefits the global navigation objective, but with each agent also directly benefiting from the capabilities of the other at an operational level. This conceptual team aims to address the challenge of prolonged autonomous navigation within environments, for which a limited amount of information is available prior to deployment.

The purpose of the work is to develop UAV technology for civilian applications. All research will be conducted in Abu Dhabi with internal funding provided by NYU in Abu Dhabi. The PI is an EU national.
ITAR regulations (Munitions List) that *may* be applicable:

Even though all research is being conducted outside the U.S. by a non-U.S. person, ITAR *may* still being applicable because:

• Munitions List Category VIII (h)(12) includes: "unmanned aerial vehicle (UAV) flight control systems and vehicle management systems with swarming capability…"
• NYU Abu Dhabi is a U.S. person - ITAR 120.15, and
• ITAR applies to foreign defense articles and services "described on the U.S. Munitions List of non-U.S. origin." ITAR 120.44.
• ITAR fundamental research - limited to Universities in the U.S.
International Travel

Faculty member is traveling internationally this summer beginning June 1 with several destinations in the following order: Lebanon, Russia and Denmark. He wants to take in his checked baggage:

• Ten IPads which he will leave in Lebanon with a graduate student who will collect social science data using the IPads. The Graduate student will return to the U.S. with the IPads after three weeks of research.
• His NYU MacBook Pro, which is loaded with standard off-the shelf software such as Microsoft Office Suite, standard encryption software and NYU issued VPN technology. The MacBook and all software is EAR 99. The professor will carry with him no controlled research data.
International Travel Compliance Issues

- The ten IPads could be subject to customs duties and seizure in Lebanon without the correct customs documentation – can be exempted from duties if for temporary import only.
- Office equipment with lithium batteries may be subject to Air shipment restrictions.
- Some countries, such as Russia, have legal restrictions on importing encryption software, including VPN technology.

See http://www.cryptolaw.org/