



R&D Export Compliance

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OBJECTIVES

1

What are you developing and why?

2

Who is the customer and collaborators?

3

Is the product export controlled and how?

4

What are your export compliance responsibilities?



Two Primary Control Lists

PROPRIETARY

- Data
 - Copyright
 - Patents
 - Know-how
 - Manufacturing process
 - Etc.
- Ex. Coke trade secret - not export controlled.
Protected by other laws, e.g. Economic Espionage Act of 1996

<http://www.fbi.gov/about-us/investigate/counterintelligence/economic-espionage>

EAR

- Dual Use / Strategic or Commercial
- Controlled items appear on the Commerce Control List (CCL)
- New list – Commerce Munitions List (CML)
- A number of exceptions
- Examples for this lesson:
 - Navigation systems
 - Ceramic materials
 - Solid Propellants
 - Gyro
 - Thrust vector controls

ITAR

- Military / Space
- Controlled items appear on the U.S. Munitions List
- License typically required for foreign persons
- “Specifically”
 - Designed
 - Modified
 - Adapted
 - Configuredfor military or space applications
- May also have civilian uses

Are you developing something export controlled?

Data

TECHNOLOGY

“Specific information necessary for the development production or use of a product in the form of technical assistance, blueprints, designs, diagrams, models, formulae, manuals, etc.

15 CFR 772.1

DEVELOPMENT, PRODUCTION OR USE

A deemed export is the “Release” of technology in the US or abroad via:

- Development
 - All stages prior to production, i.e. design
- Production, or
- “Use” :
 - Operation
 - Installation (including on-site)
 - Maintenance (checking)
 - Repair
 - Overhaul; AND
 - Refurbishing
- The purpose of fundamental research and corporate research is to negate the “deemed export.”

15 CFR 734.2

TECHNICAL DATA

- (1) Information required for the design, development, production, assembly, operation, repair, testing, maintenance or modification of defense articles
 - (2) Classified Information
 - (3) Secrecy Order
 - (4) Software for defense articles
- Blueprints, drawings, photos, plans, instructions, etc.

22 CFR 120.10

Is your “technology” or “technical data” subject to export controls?

R&D Restrictions = Export Control Requirements

CORPORATE RESEARCH

- Conducted by scientists / engineers for a business.
- Qualified as fundamental at time and to the extent researchers are free to make technical data public without proprietary restrictions or national security controls.
- Subject to controls if listed in EAR or ITAR

15 CFR 734.8(d)

FUNDAMENTAL RESEARCH

Basic or Applied research

- US institution (in the US)
- Results published or intent to publish

Without:

- Proprietary, access, dissemination, publication or participation restrictions
- No national security controls

Different than Industrial design, development, production or utilization (use)

15 CFR 734.8

PUBLIC DOMAIN

Information not articles

- Published & accessible
- Newsstands / bookstores
- Subscriptions
- Mail
- Public Libraries
- Open patents
- Unlimited distribution at a conference
- Public release (unlimited distribution) by the government
- Fundamental research

22 CFR 120.11

FUNDAMENTAL RESEARCH

Science & engineering at US institutions of higher learning, the results ordinarily published as distinguished from restricted research with proprietary restrictions or U.S. Government access & dissemination controls.

- No restrictions on publication
- No access or dissemination controls

22 CFR 120.11(a)(8)

Is your research subject to export controls? It depends on the intent

U.S. Content Rules

U.S. ORIGIN

- U.S. origin items wherever located
- Foreign-made commodities that incorporate controlled U.S. origin commodities
- Foreign-made direct products of U.S. origin technology or software

15 CFR 734.3

De MINIMIS RULE

Threshold for the export of certain U.S. or foreign made items incorporating a specific amount of U.S. origin controlled content

- 0% for certain commodities
- 10% for certain software
- 10% for certain technology
- 25% for certain things to certain friendly places
- Very specific rules

15 CFR 734.4

SEE THROUGH RULE

- Currently an unpublished domestic policy
- USML components, retain USML status when incorporated into domestically manufactured EAR items
- Currently being rewritten and officially published
- Proposed Conditions:
 - EAR item inoperable if USML component removed
 - Technology cannot involve a “defense service”
 - No transfer of defense article data
 - Value of defense article must be less than 1% of total value

22 CFR 126.19 (Proposed)

Incorporating US technology in various ways has specific rules

Jurisdiction

File a CJ Request

The Bureau of Industry & Security for “dual-use”

<http://www.bis.doc.gov/licensing/facts3.htm>

Directorate of Defense Trade Controls for “USML”

http://www.pmdtc.state.gov/commodity_jurisdiction/index.html

- (1) Always wait for a written response before proceeding with an export – including a deemed export
- (2) ITAR always trumps the EAR.

If your product is subject to the EAR or the ITAR – deemed export (EAR) and defense service (ITAR) concerns need to be addressed

I cannot determine if it is ITAR or EAR

Collaborators

US Collaborators/Partners...

Ask the question BEFORE release...

- (1) Restricted Party Screen
 - Are they listed?
- (2) Physical location of facility?
 - is it a home?
- (3) Who will have access in facility?
 - Foreign person employees?
- (4) Can the collaborator safeguard?
 - Do they have "one lock"
- (5) Are they knowledgeable?
 - Do responses make sense?
- (5) Foreign interns?
 - Companies don't know who they are hiring
- (6) Email addresses?
 - Gmail?

Customers

- Work in defense, intel, homeland security will almost certainly be ITAR
- Make, market, broker, sell, service or have anything to do w/ ITAR – register with DDTC
- Customer data is controlled (drawings, algorithms, manuals, warranty service records, etc.)
- Any exchange of data w/ foreign persons is an export
- It is NOT up to the Engineering VP or Manager – it is up to DoS
- If it is not in writing from DoC or DoS, it is not valid

Train your staff!

Defense work w/ foreign persons...

Restricted Party Lists

- Department of Commerce Denied Persons [BIS]
- Department of Commerce Entity List [BIS]
- Department of Commerce "Unverified" List [BIS]
- Specially Designated Nationals and Blocked Persons [OFAC]
- Department of State Designated Terrorist Organizations
- Department of State Terrorist Exclusion List
- Palestinian Legislative Council List [OFAC]
- Federal Register General Orders
- Department of State Arms Export Control Act Debarred Parties [DDTC]
- Department of State Munitions Export Control Orders [DDTC]
- Department of State Nonproliferation Orders
- WMD Trade Control Designations [OFAC]
- GSA Parties Excluded from Federal Procurement Programs
- GSA Parties Excluded from Federal Nonprocurement Programs
- GSA Parties Excluded from Federal Reciprocal Programs
- OIG Entities Excluded from Federal Health and Medicare Programs
- Air Force Special Investigations - Top Ten Fugitives
- Alcohol, Tobacco, Firearms and Explosives Most Wanted
- FBI Ten Most Wanted Fugitive
- FBI Most Wanted Terrorists
- FBI Seeking Information
- FBI Wanted Fugitives
- FBI Crime Alert
- Food and Drug Administration – Clinical Investigators
- Food and Drug Administration – Debarment List
- Food and Drug Administration – Disqualified and Restricted
- Homeland Security Most Wanted Fugitive Criminal Aliens
- Homeland Security Most Wanted Human Smugglers
- Naval Criminal Investigative Service – Wanted Fugitives
- Immigration and Customs Most Wanted Fugitives
- U.S. Drug Enforcement – Major International Fugitives
- U.S. Marshals Service – Major Fugitive Cases
- U.S. Marshals Service – Top 15 Most Wanted
- Office of Research Integrity PHS Administrative Actions
- U.S. Postal Inspection Service – Most Wanted
- U.S. Secret Service Most Wanted

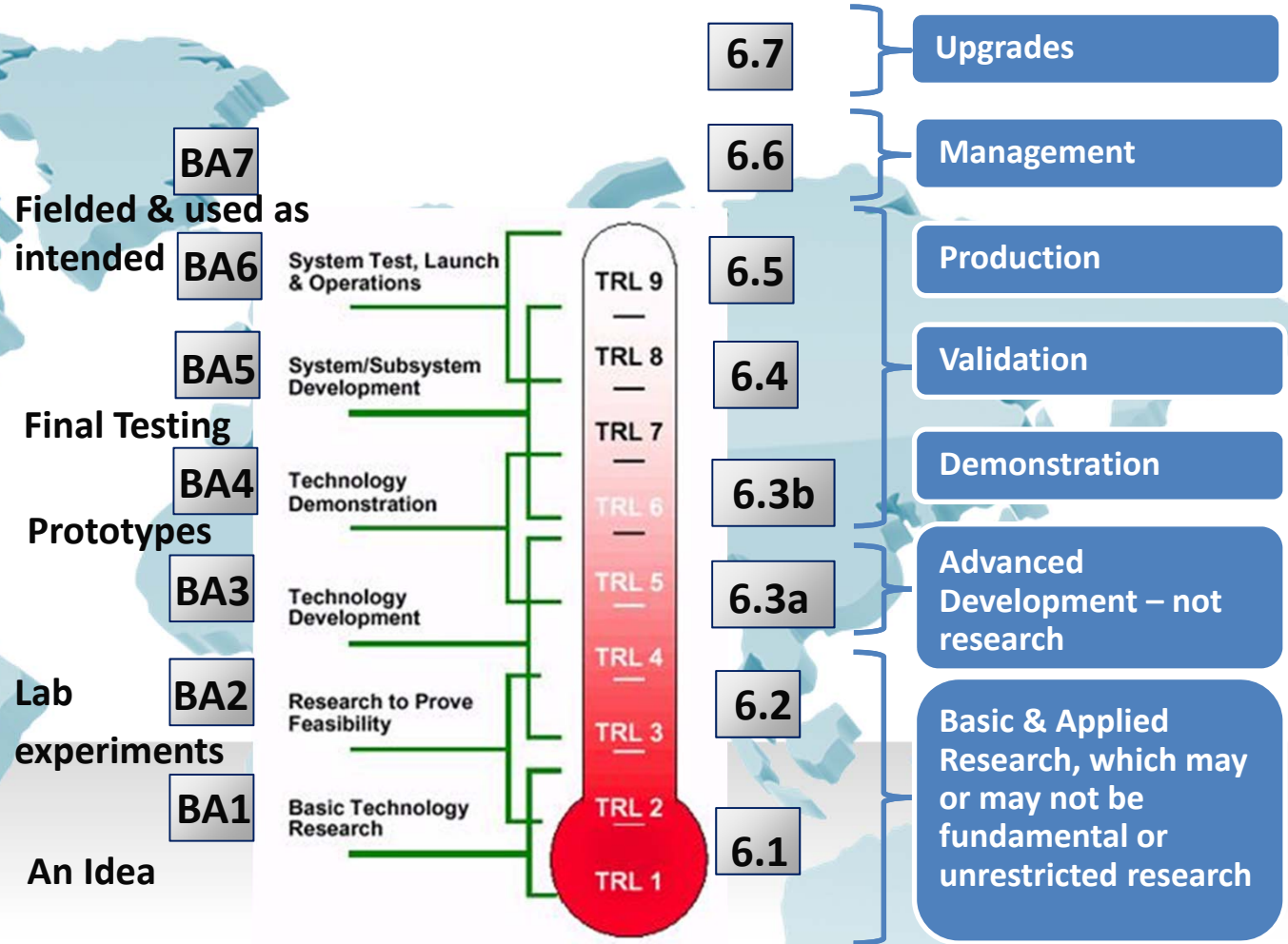
Do you know your collaborators?

MILITARY TECHNOLOGY RESEARCH (R&D)

At what stage is R&D Controlled?

EAR – As soon as it is proprietary. Control parameters depends upon the technology – is it listed in the CCL? It may qualify as fundamental only at the basic & applied stage.

ITAR – All military R&D is restricted at all stages



Why is “stuff” controlled

EAR

Chemical/Biological Proliferation (CB)
Nuclear Nonproliferation (NP)
National Security (NS)
Missile Technology (MT)
Regional Stability (RS)
Crime Control (CC)
Anti-terrorism (AT)
Short Supply
Encryption Items (EI)
Firearms Convention (FC)
United Nations Embargo (UN)
Significant Items (SI)
Surreptitious Listening (SL)

ITAR

Inherently Military

OFAC

Economic & Trade Sanctions Programs
Embargoes

Behind every
“regulation”
there is a...

Some Other Control examples...

NRC
FDA
USDA
DoE
ATF
EPA
DEA

- (1) U.S. Law
- (2) Domestic Policy
- (3) Tariff/Trade Obligation
- (4) Foreign Policy Obligation
 - Treaty
 - Control Regime
 - Informal & Voluntary

A few examples of US Foreign Policy Obligations

International Defense Cooperation
Arms Export Control Act (Arms race regs)
ITAR
Missiles, Chem/Bio, FMS, Nuclear, Training
end-use

International Treaties
Wassenaar Arrangement
Strategic Arms Reduction Treaty (START)

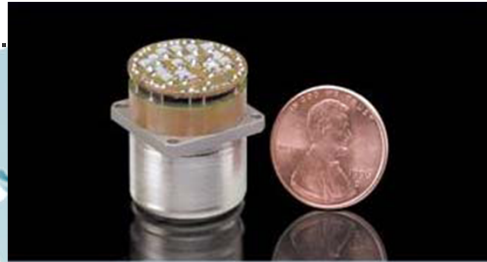
US Participation in a Control Regimes
Chemical Weapons Conventions
MTCR

United Nations (sanctions)
Sierra Leone
Rwanda
Somalia, etc

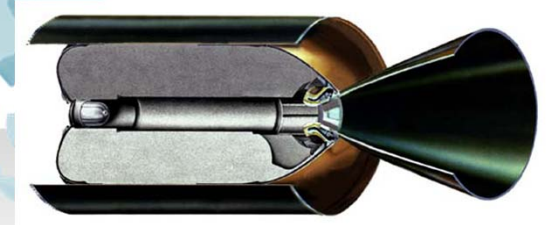
Dual Use Components :

Gyro

Military applications include artillery, tanks, ships, and aircraft. Commercial applications include ships, aircraft, and oil drilling.



Gyro Test Equipment



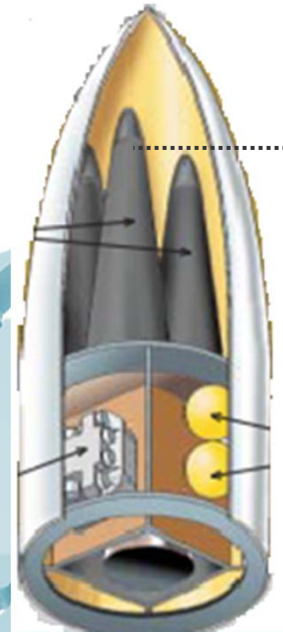
9A017
Solid Propellant
Engine

Ceramics

Brake Pads

Nose tips

Rocket cones



Industrial Equipment

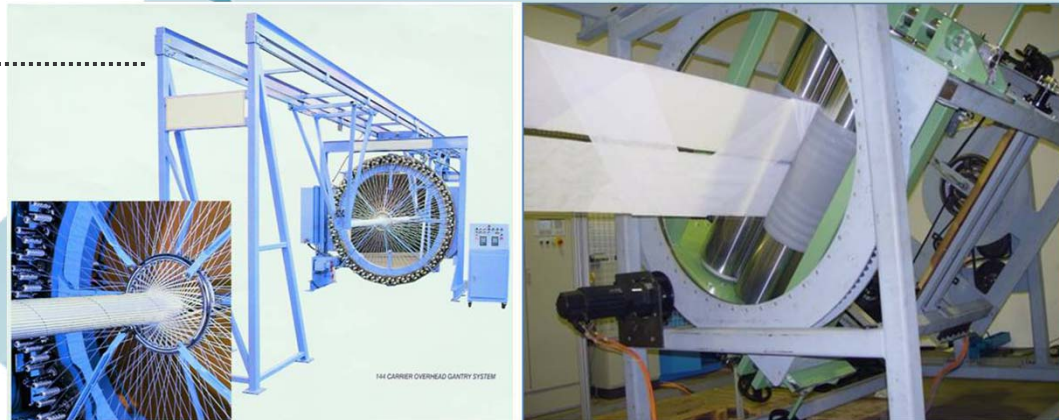
Prepeg Material

Lightweight, hi-strength aerospace & defense structures; water sports, skis, golf clubs, prosthetic limbs, surgical devices



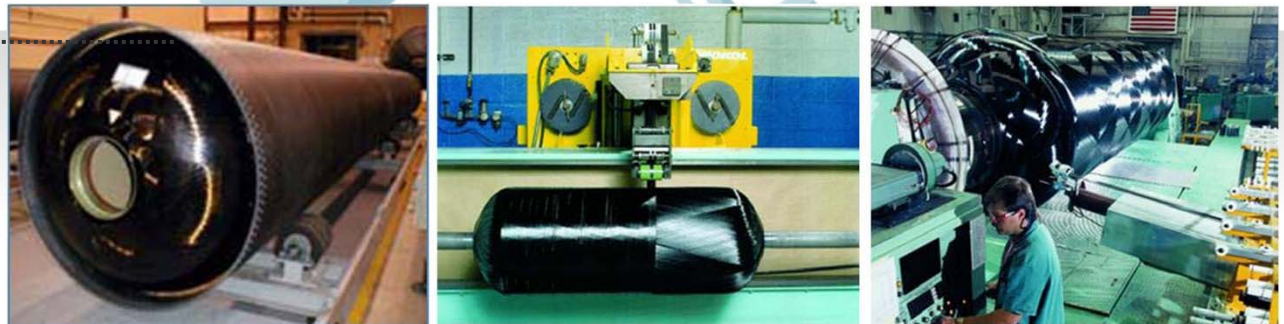
Braiding Machine

Critical missile parts e.g. rocket case, nozzle, RV nose tip; Sports Equipment, windmill spars, utility poles, propellers



Filament Winding Machine

Propellant tanks, rocket case, payload case (for nukes)
Aircraft parts, natural gas tanks, parts of wings, fuselage;
tennis racquets, fishing rods, gold club shafts.



Gravity Meter: 6A007 / 6A107

Gravity meters and gravity gradiometers make very accurate measurements of the magnitude of the force of gravity at various locations. Airplanes, helicopters, ships, and submarines outfitted with gravity meters can make gravity maps at sea, or over mountainous terrain. They can also be used as sensors in guidance systems to improve accuracy.

They are used in petroleum and mineral resource exploration, civil engineering, geophysical mapping, geotechnical and archaeological exploration, groundwater and environmental studies, tectonic research, volcanology research, and geothermal research...

They are also used to map the gravitational attraction beneath the sea to facilitate **increased accuracy of ballistic missiles** launched from submarines or from land installations near the coast. Gravity gradiometers may be useful for UAV guidance, perhaps over water or other featureless terrain.



Technology / Development, Production, Use



- 6E001: Development of equipment
- 6E002: Production of equipment




- 7E001: Development of equipment
- 7E002: Production of equipment
- 7E003: Repair, refurbishing or overhaul of equipment
- 7E101: Technology for “use” of equipment

Navigation & Avionics
(How many of you are
in this sector?)



- 1E001: Technology for Development or Production
- 1E002: Other “technology”

Responsibilities

- 
- Comply with EAR, ITAR, OFAC
 - Exclude collaborators
 - License
 - Invoke an exception, exemption or exclusion
 - Do not export, publish or release (access, dissemination, publication, participation)
 - Maintain all records (5 years)



Questions
Or
Comments?

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