



# Dual Use Export Controls – Missile Technology Controls

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**Panel Members: Dennis Krepp (BIS) and  
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## Commerce Jurisdiction



Inertial Reference Units (7A103) – Guidance systems for commercial aircraft, military aircraft, and missiles

Accelerators (3A101) – Missile use as well as for large cargo screening



Graphite (1C107) – Rocket nozzles and reentry vehicle nose tips, dies for casting molten metals

Filament Winding Machines (1B101) – All types of structural composites such as rocket motor cases, airplane components, and high pressure gas cylinders.



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## List Based Controls



- ECCN 1B117
- Heading Batch mixers with provision for mixing under vacuum in the range from zero to 13.326 kPa and with temperature control capability of the mixing chamber...
- Reason for Control MT, AT

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## MT Controls

MT items are often subjected to tighter controls

- Licenses are required to all destinations other than Canada
- There are limited license exceptions for MT items:
  - Items other than some radar, accelerometers, gyros and corresponding test equipment, software, and technology may be exported as part of a manned aircraft, land vehicle, or marine vehicle or as replacement parts for such under license exceptions TMP, RPL, TSU, and AVS. \*

\*License Exception TMP is limited to 740.9(a)(2)(ii) and AVS to 740.15(c).

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## MT Controls

- Anti-friction bearings and bearing systems (2A001) may be exported under TMP or RPL as one-for-one replacement for equipment previously exported.

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## MT Controls – Presidential Certification

- Section 1512 of the National Defense Authorization Act for Fiscal Year 1999 (NDAA) requires Presidential certification for the export of missile-related equipment or technology (except avionics for manned aircraft), as defined in Section 74 of the Arms Export Control Act, to the People's Republic of China (PRC).

The \*President must report to Congress fifteen days prior to shipment that: (1) the export is not detrimental to the United States space launch industry; and (2) the equipment, including any indirect technical benefit that could be derived from the export, will not measurably improve the missile or space launch capabilities of the PRC .

**\*In 2010, This authority was delegated to the Secretary of Commerce.**

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## What Are “Catch-All” Controls?

- The Enhanced Proliferation Control Initiative (EPCI) is designed to help eliminate the worldwide threat of proliferation of WMD and their missile delivery systems
  - EPCI places export controls on end use and end users rather than a particular item and applies to all items subject to the EAR (e.g., Sections 744.2, 744.3, 744.4 and 744.5).
- 50-80% of the goods and technology required for a project or facility of concern involving WMD or missile delivery systems are not subject to a destination based licensing requirement.

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## U. S. Implementation of “Catch-All” Controls

Missile, Nuclear, or CBW activities or facilities:

- License may be denied if destined for such an end-use.
- “Knowledge” Provision – License must be obtained if exporter **knows** the items will be used for such a prohibited end use.
- “Is Informed” Provision – BIS may **inform** exporters that license is required for specific end user, including placing such a person on the Entity List.
- “U.S. Persons” Provision – Any U.S. participation in such activities requires a license, extends to items not subject to the EAR.
- Crossover Provision

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## Missile End-Use Controls

- Section 744.3 (Catch-All/EPCI)
  - End use restricted for the design, development, production or use of:
    - Rocket systems or unmanned air vehicles capable of a range of at least 300 kilometers in or by a country listed in Country Group D:4.
    - Any rocket systems or unmanned air vehicles for the delivery of chemical, biological, or nuclear weapons to anywhere in the world, except by governmental programs for nuclear weapons delivery of NPT Nuclear Weapons States that are also members of NATO.
    - Any rocket system or unmanned air vehicle in a D:4 country where system characteristics or use are unknown.

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*Enhanced Proliferation Control Initiative (EPCI)*

I am a distributor of college textbooks. I often get requests from foreign customers for textbooks on aerospace engineering.

**Should I be worried about EPCI?**

*Enhanced Proliferation Control Initiative (EPCI)*

**My company recently had an export license for a machine tool denied for China. The reason for denial was missile related. This item isn't even controlled for missile reasons.**

**What's going on?**

*Enhanced Proliferation Control Initiative (EPCI)*

**I want to export EAR99 items for use in a short-range missile. I assume this is considered a missile activity.**

**How do I know if a license is required?**



## Entity List

- The Entity List notifies exporters of requirements for exports/reexports to specified end users
- See Supplement Number 4 to part 744 of the EAR

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## Indian Missile Entities

Indian missile entities were recently (Jan 25, 2011) removed from the Entities List, including:

- Defense Research and Development Organization (DRDO)
  - Armament Research and Development Establishment
  - Defense Research and Development Lab
  - Missile Research and Development Complex
  - Solid State Physics Laboratory
- Indian Space Research Organization (ISRO)
  - Liquid Propulsion Systems Centre
  - Solid Propellant Space Booster Plant
  - Sriharikota Space Centre
  - Vikram Sarabhai Space Center
- Bharat Dynamics Limited (BDL)

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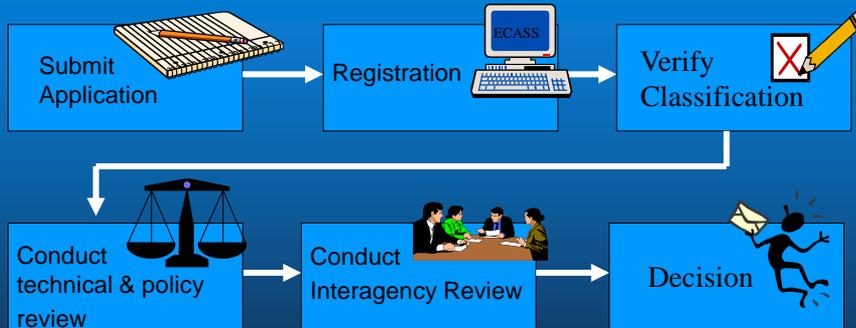
## Classification Request and Advisory Opinions

- If you need help figuring out what ECCN applies to your product or if you have transaction specific questions, BIS is there to help.
- Section 748.3 of the EAR explains the Commodity Classification and Advisory Opinion process
- Information can also be found at [www.bis.doc.gov](http://www.bis.doc.gov)

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## Licensing Process



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## Evaluation Factors

- The specific nature of the end-use and end-users involved.
- The significance of the export in terms of its contribution to the design, development, production, or use of missiles.
- The capabilities and objectives of the missile and space programs of the recipient country.
- The nonproliferation credentials of the importing country.
- The types of assurances or guarantees against design, development, production, or use of missiles that are given in a particular case.
- The existence of a pre-existing contract .

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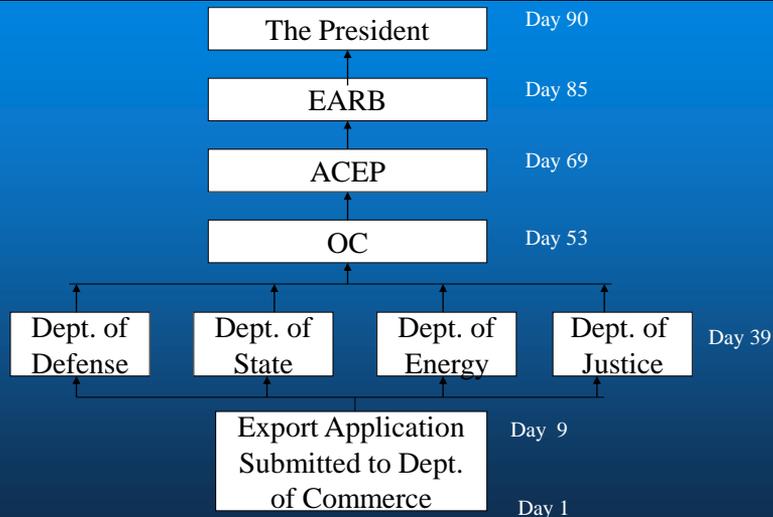
## Credentials of Importing Country

- Is the country a member of the MTCR?
- Is there an agreement for cooperation for civil uses of the commodity?
- Are the country's actions, statements, policies in support of nonproliferation?
- Does the government of the importing country cooperate with nonproliferation policies in general?
- Does the importing country intend to become a member of any of the regimes?

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## Licensing Deadlines (by Executive Order)



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## Decision to Applicant

- Applicants are notified of licensing decision by mail or electronically
- If license is going to be denied, the exporter has 20 days to rebut the decision
- Exporter has the ability to appeal the licensing decision as outlined in part 756 of the EAR

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# QUESTIONS?

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# Missile Technology Control Regime and Missile Technology Export Control (MTEC) Reviews



ISN/MBC  
Missile, Biological, & Chemical Nonproliferation Office  
Bureau of International Security and Nonproliferation  
U.S. Department of State

## Overview

- National Nonproliferation Policy Implementation
- MTCR
- MTEC/MARC
- Conclusion

# MTCR DOS Organization



# Nonproliferation Policy Implementation

Interagency Policy Coordinating Committee  
(PCC)  
(Assistant Secretary level)

Sub-PCC  
Missile  
(DAS level)

MTEC, MTAG, MARC  
Missile Technology Export Control,  
Missile Trade Analysis Group,  
Missile Annex Review Committee  
(Working Level)

# Missile Technology Control Regime (MTCR)



- Created in 1987.
- Voluntary political arrangement; not a treaty.
- Seeks to limit the proliferation of missiles capable of delivering WMD and related technology.
- Controls virtually all equipment, software, and technology needed for missile development, production, and operation.

## MTCR: What it is ...

- MTCR Partners (members) control a common list of items (MTCR Equipment, Software and Technology Annex, or the MTCR Annex) according to a common policy (MTCR Guidelines).
- The MTCR restricts transfers of missiles, and equipment and technology related to missiles, capable of a range of at least 300 km.
  - A Category I or MTCR-class missile is capable of delivering a payload of at least 500 kg to a range of at least 300 km.
  - Transfers of Category I missiles are subject to a strong presumption of denial regardless of destination/purpose.
- The MTCR Guidelines and Annex are open to all countries to implement.
- MTCR controls are implemented by each country in accordance with its national laws and regulations.

## MTCR: Partners (members)

- Seven original members: Canada, France, Germany, Italy, Japan, United Kingdom, and United States.

- Regime now includes 34 countries:

Argentina	Australia	Austria
Belgium	Bulgaria	Brazil
Canada	Czech Republic	Denmark
Finland	France	Germany
Greece	Hungary	Iceland
Ireland	Italy	Japan
Republic of Korea	Luxembourg	The Netherlands
New Zealand	Norway	Poland
Portugal	Russia	South Africa
Spain	Sweden	Switzerland
Turkey	Ukraine	United Kingdom
United States		

## MTCR: Administrative Structure

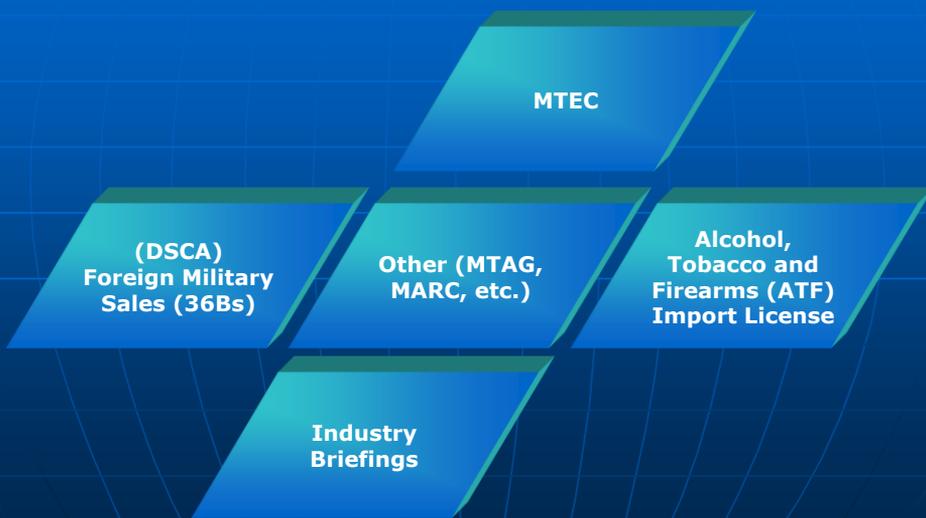
- The Regime holds an annual Plenary meeting (with Information Exchange, Law Enforcement Experts, and Technical Experts meetings) and intersessional meetings as needed.
- The MTCR Chairmanship rotates on an annual basis.
- The country that serves as the Plenary host becomes the Chair for the ensuing year.
- Argentina hosted the 2011 Plenary in April and will serve as MTCR Chair for 2011-2012
- The MTCR has no formal secretariat. France serves as the MTCR's Point of Contact (POC), including for distribution of the Regime's working documents.

# MTCR Category I

- Transfer of Cat I items authorized only on rare occasions
  - Transfer of Category I production facilities are ***prohibited absolutely***
  - Unconditional “strong presumption of denial”
- Examples of Cat I Items:
  - Ballistic and cruise missiles, target drones, sounding rockets, space launch vehicles, rocket motors/engines, reentry vehicles, guidance sets
  - Tradeoff/inherent capability



# Missile Technology Policy Reviews



# Missile Technology Export Control (MTEC) Group



- Interagency, State-chaired (by ISN/MBC)
- One of many government agency reviews
- Rules by consensus
- Recommendation rarely overruled

## Review Mechanics

- Meets weekly for nonproliferation policy review (approximately 100 cases per week )
- Transfers evaluated on a *case-by-case* basis while exercising restraint in all transfers of MTCR Annex items
- Uses MTCR Guidelines and Denial List, Offshore Procurement Policy, U.S. Nonproliferation Policy, U.S. National Space Policy, Assurances, Legislation, Sanctions Decisions to recommend approval or denial of export licenses
- Reviews also consider export enforcement/end-use monitoring and intelligence information

# MTCR: Six Factors for Consideration

The MTCR Guidelines include factors to consider when evaluating license applications:

- I. Concerns about the proliferation of weapons of mass destruction (WMD)
- II. Capabilities and objectives of missile and space programs of the recipient state
- III. Significance of transfer in terms of potential development of delivery systems for WMD
- IV. End-use assessment
- V. Applicability of multilateral agreements
- VI. Risk of items falling into the hands of terrorist groups or individuals

## Missile Annex Review Committee

- Interagency working group, chaired by DOS/ISN/MBC, charged with resolving MTCR Annex technical issues
- Meetings convened as required to provide IA vetting on any/all Annex technical issues
- Typical Activities:
  - Reviewing proposals by Partners for amending the Annex
  - Developing U.S. proposals for amending the Annex
  - Evaluating export controls for consistency with Annex
  - Determining if a particular item is controlled on "the Annex"
  - Determining MTCR categorization of systems and major subsystems

# Conclusion

- MTCR is the *centerpiece* of U.S. missile nonproliferation policy
- MTCR is an evolving entity
- MTCR Annex is a living document
- Visit [www.mtcr.info](http://www.mtcr.info) for latest documents



# DOS MTEC/MARC POCs

- Sean Monogue 202-736-7716
  - MTEC Chair
- Grayson Cochran 202-647-1747
  - MTEC Executive Secretary
- Sarah Ayers 202-647-1142
  - MTEC Officer
- Kennedy Wilson 202-647-8590
  - MARC Chair, Technical Expert Meetings