

Final Section 1248, NDAA FY 2010 (P.L. 111-084)



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Energizing the Industrial Base

- **Strength of our space industrial base is key objective of National Space Policy and National Security Space Strategy**
 - Strategic advantage requires robust, healthy industrial base
 - Current export control system is based on geopolitical, economic, and technological realities of Cold War
- **Strategic approach**
 - Modify controls placed on satellites and related components that are widely available
 - Focus stricter controls on space technologies critical to national security

Changes will facilitate cooperation with allies and export control regime partners and help our industry compete on the global market, while maintaining robust controls where necessary to protect national security.



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Approach

- **Interim report provided initial conservative starting point for transferring items from the USML to the CCL**
- **Final report addressed a request for a China-specific assessment**
- **Final Report consistent with ECR concepts and implementation**
 - USML Rewrite – Brightline Cat XV, higher walls around fewer items
 - Commerce 600 series – recommending similar controls



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Final 1248 Report - Recommendations

- **Congress should return to the President the authority to determine export control jurisdictional status of satellites and related items**
- **Authorize DoD to determine the need for special export controls (monitoring) regardless of location or parties involved in**
 - Satellite failures and anomaly resolution
 - Launch operations
 - Launch failure analysis
 - Launch vehicle development programs
- **Authorize the DoD to be appropriately reimbursed by industry for any special export controls services**
- **If the above authorities are provided, the Administration would**
 - Create proposed rules for the USML and CCL based on the report's appendices
 - Federal Register Publication and comment period
 - Congressional notification
 - Assign appropriate controls and licensing policies
 - Establish processes for periodic reviews



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Final 1248 Report - Findings

- **Other nations are less restrictive on export of satellites**
- **A substantial number of items controlled by the USML are no longer critical to a military or intelligence function or are used predominantly for commercial applications**
- **Complete decontrol of such items could improve the military potential of a country of concern**
- **China - U.S. should maintain strict controls on space-related dual-use technology transfers**
- **U.S. should ease restrictions on transfers to our allies and partners**
- **CCL controls will protect items moved from USML**
- **Launch Support/Failure Analysis**
 - Needs to remain on USML regardless of the satellite's jurisdiction
- **Special Export Controls (SECs) are necessary to mitigate substantial risks associated with provision of technical services**



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Other Nation's Space Export Policies

- **Policies examined:**
 - France, Germany, Israel, Russia, Japan, Canada, and the United Kingdom
- **Most commercial satellites and related items are under dual use controls**
 - Consistent with Wassenaar Arrangement controls
- **U.S. space export policies are different**
 - USML control by statute as a result of unauthorized transfers to China
 - USML controls continue after initial export (retransfers)
 - Export to China prohibited (USML status & Tiananmen sanctions)
 - Launch by certain countries requires U.S. Government monitoring



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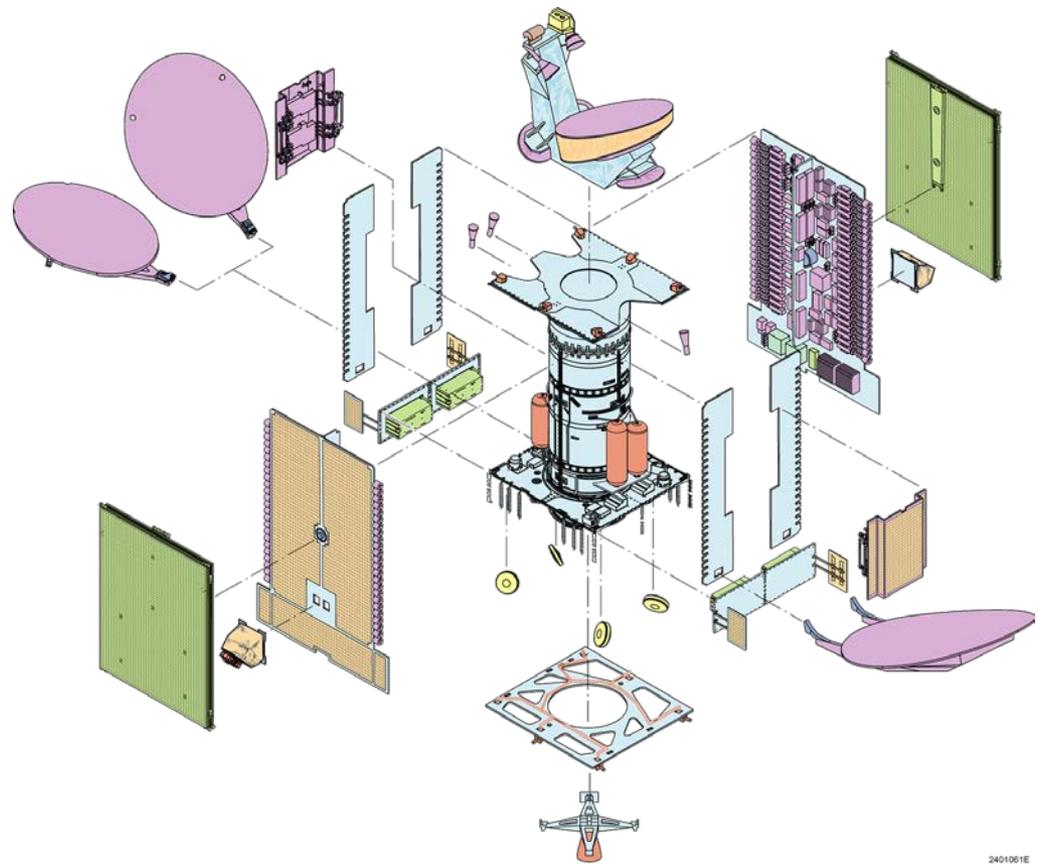
Items for Transfer to CCL

- **Satellites**
 - Commercial Communication Satellites
 - Lower-Performance Remote Sensing Satellites
 - Planetary Rovers
 - Planetary and Interplanetary Probes
- **Including for the above:**
 - Ground control systems
 - Training simulators
 - Test, inspection, and production equipment
 - Non-critical software for production, operation or maintenance
 - Non-critical technology for the development, production, installation, operation and maintenance
- **Parts and components of satellite bus and payloads common to the above satellites**
 - Thousands of *types* of parts and subsystems
 - Hundreds of thousands specific parts
 - See next slide
- **Technology related to spaceflight passenger experience**



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CCL Satellite-Related Parts and Components



2401061E

SATELLITE BUS SYSTEMS INCLUDES:

- Solar Array
- Propulsion Tank
- Optical Solar Reflector
- Tower Structure
- Stationary Plasma Thruster
- Antenna Reflector
- Antenna Subreflector
- Comm Panel Electronics
- Spacecraft Control Electronics
- Thruster
- Antenna Feed
- Earth Sensor
- Thermal Blanket
- TWTA
- Batteries
- TT&C Antenna



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Risks Associated with Decontrol of Space Items

- **Export or reexport of a satellite or related item that improves military or intelligence capability of another nation**
 - Low risk for NATO and close partner nations
 - High risk for countries of concern
 - Medium for all others – based on likelihood of diversion
 - Can be mitigated with appropriate CCL controls
- **Unauthorized transfer of launch and missile know how during launch integration or failure analysis that improves a country's indigenous space programs**
 - High risk regardless of satellite-type or export control jurisdiction
 - Effective mitigation only available through USML (monitoring)



Statistics for Licenses to Partner Nations

- **For 2011, DoD licenses involving USML controlled satellite parts and components going to partners and allies**
 - 95.7% were approved with no additional provisos or restrictions
 - 4% were approved with conditions
 - Only 0.3% were denied:
 - 3 involved critical technology which DoD restricts from export;
 - 2 required export via FMS rather than direct commercial sale;
 - 1 lacked sufficient detailed information to be evaluated
- **Parts and components eligible for license exceptions involve little to no national security risk based on licensing precedent and practice**



Items Remaining on the USML

- **Satellites and spacecraft**
 - Unique military and intelligence functions, including nuclear detection, intelligence collection, missile tracking, anti-satellite or space-based weapons, classified operation or equipment, and navigation
 - Certain remote sensing with military applications
 - Man-rated habitats
- **Ground control equipment**
 - Performs a uniquely military function for one of satellites above
- **Parts & components**
 - Sixteen specific technologies critical to military functions
 - Any payload that performs one of military functions listed above
 - DoD funded payloads



Items Remaining on the USML (contd)

- **Satellite integration and launch services**
 - Provided by a U.S. person
 - To a foreign launch integrator or launch vehicle provider
- **Launch support considered a defense service, includes furnishing assistance or information for**
 - Integration of satellite to vehicle
 - Launch failure analysis



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Summary of Proposed Controls

Cat XV Today

USML

CCL

Cat XV

Other

New ECCN 9x515

Existing ECCNs

Spec satellites

Spec Ground equip

Spec parts

Services for USML and CCL sats

GPS Rcvrs

Rad-hard ICs

Worldwide license, except CA.
25% de minimis except 0% for China and other ITAR 126.1 countries.
STA 36 eligible, except for certain software and tech

Controls for satellite items transferred from USML to be the same as for 9x515

Sats not in USML

Ground equip not on USML

Parts not on USML or other CCL

New sat related item or tech

Spec electronics

Spec optical sensors

Spec radar systems



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Special Export Controls (Monitoring)

- **Monitoring needed to mitigate against U.S. personnel transferring space and launch know-how to a foreign country**
- **Mandatory statute allows for monitoring to be applied to:**
 - All launch integration and launch operations
 - In a foreign country, except for NATO or major Non-NATO allied
 - Government reimbursed by applicant
- **Mandatory monitoring**
 - Cannot be waived
 - Some listed activities are low-risk
 - Transport of satellite to launch facility
 - Marketing and insurance briefings
 - Inconsistent due to location
 - Launch integration in Russia requires monitoring
 - Launch integration in French Guiana by same Russian company does not require monitoring; DoD uses its discretionary authority



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Special Export Controls (contd)

- **Discretionary regulation allows monitoring to be applied**
 - For reasons of national security
 - DoD funds monitoring out of DTSA operating funds
- **Discretionary monitoring**
 - Applied only to the highest risk activities not covered by mandatory monitoring
 - Development of new launch vehicles,
 - Improvement to foreign engines used with U.S vehicles, or
 - Launching a foreign vehicle from a NATO location, including a U.S. space and missile range



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Special Export Controls (contd)

- **DoD intends to apply Special Export Controls (SECs) consistently to:**
 - Activities that present the highest risk to national security
 - Without incurring additional costs to American taxpayers.
- **“Higher fences around fewer items” for SECS means continuing to monitor only high risk activities associated with satellite and launch vehicle programs, regardless of location.**
- **Additionally, activities that present low risk of transfer of launch know-how will no longer require monitoring.**



Role of Congress

- **Congress plays critical role in our export control system**
- **Without Congress' support, we will not be able to move forward in implementing changes that will benefit our national security, our warfighter, and our industrial base**
- **Looking to Congress for legislation that gives the President authority to determine export control jurisdiction for satellites and related items**
- **Proposed Category XV and CCL 9x515 are drafts and will require legislation, public review, and Congressional approval before implemented**



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Questions?