

Releasability and Technology Transfer

Briefing to NAITA



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Releasability & Technology Transfer
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Outline

Export Licensing vs. Releasability

USG Stakeholders and Processes

Export Planning

Q&A

“If you're not confused, you're not paying attention.”
- **Tom Peters**

Overview

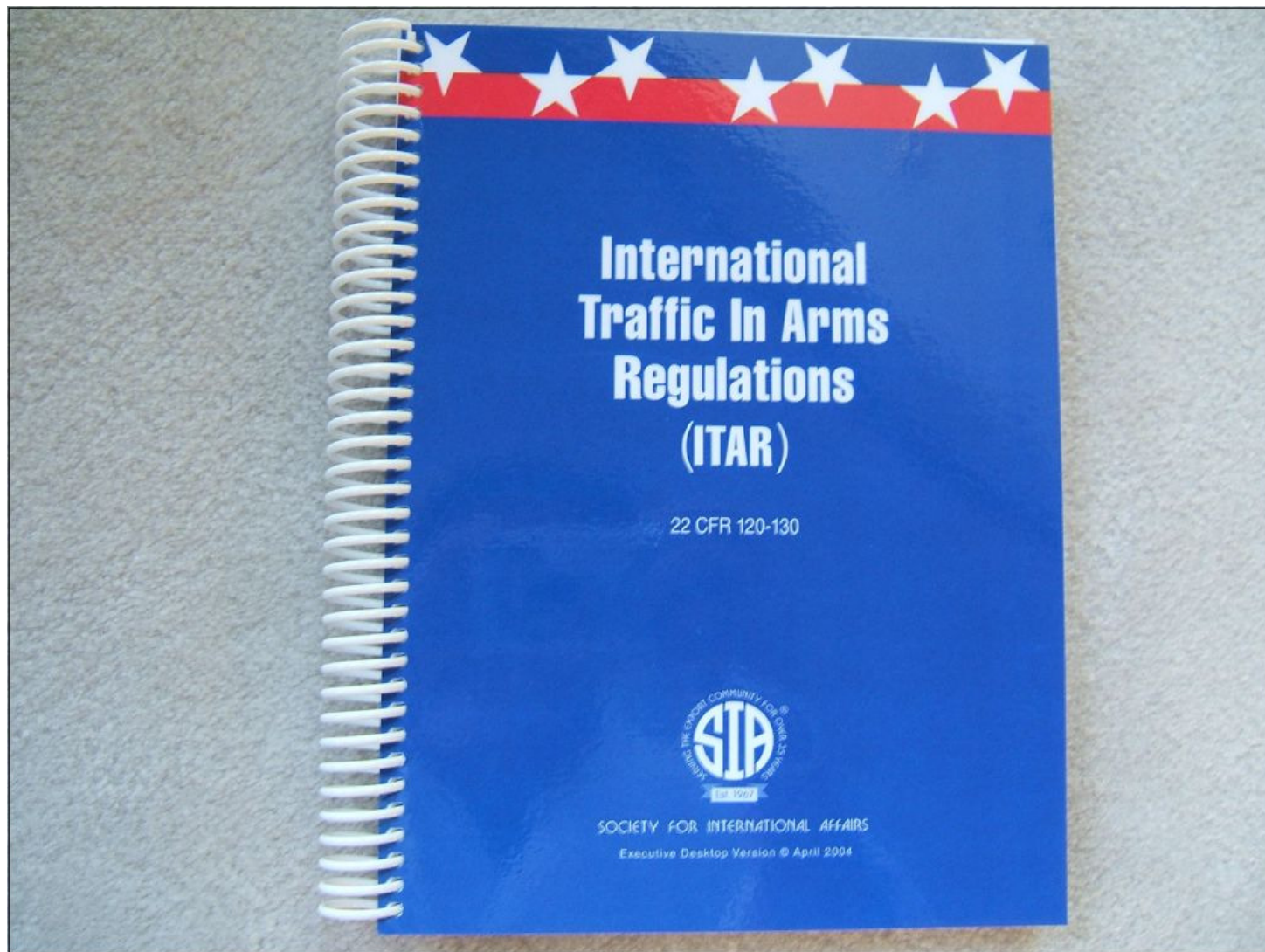
ITAR is complicated but one can ensure success*

Keys to success

- work closely with each other, partners, customers
- advance planning
- communication

Will address some of the key issues and offer suggestions for working within this regulatory environment

*Success = Compliance + Execution

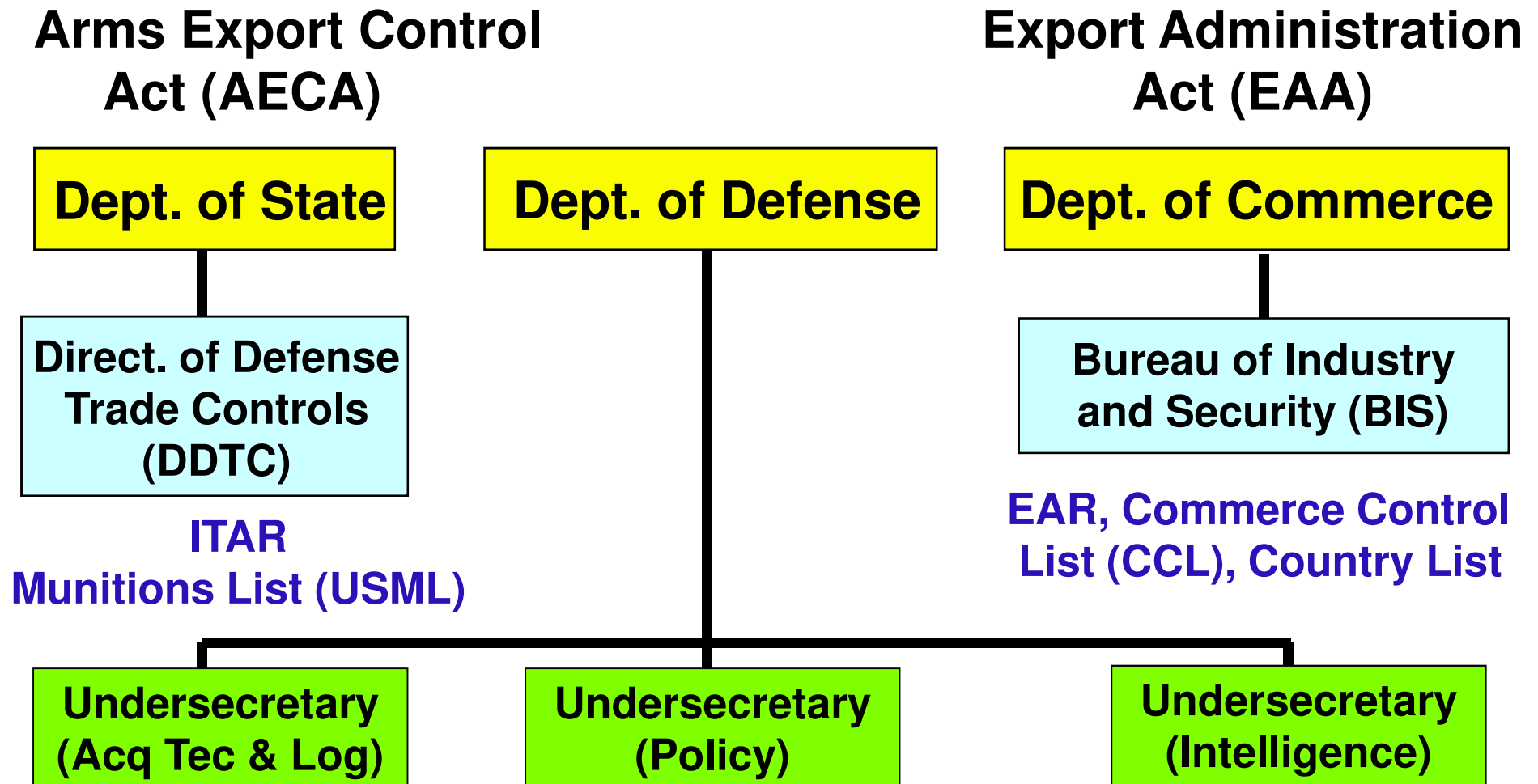




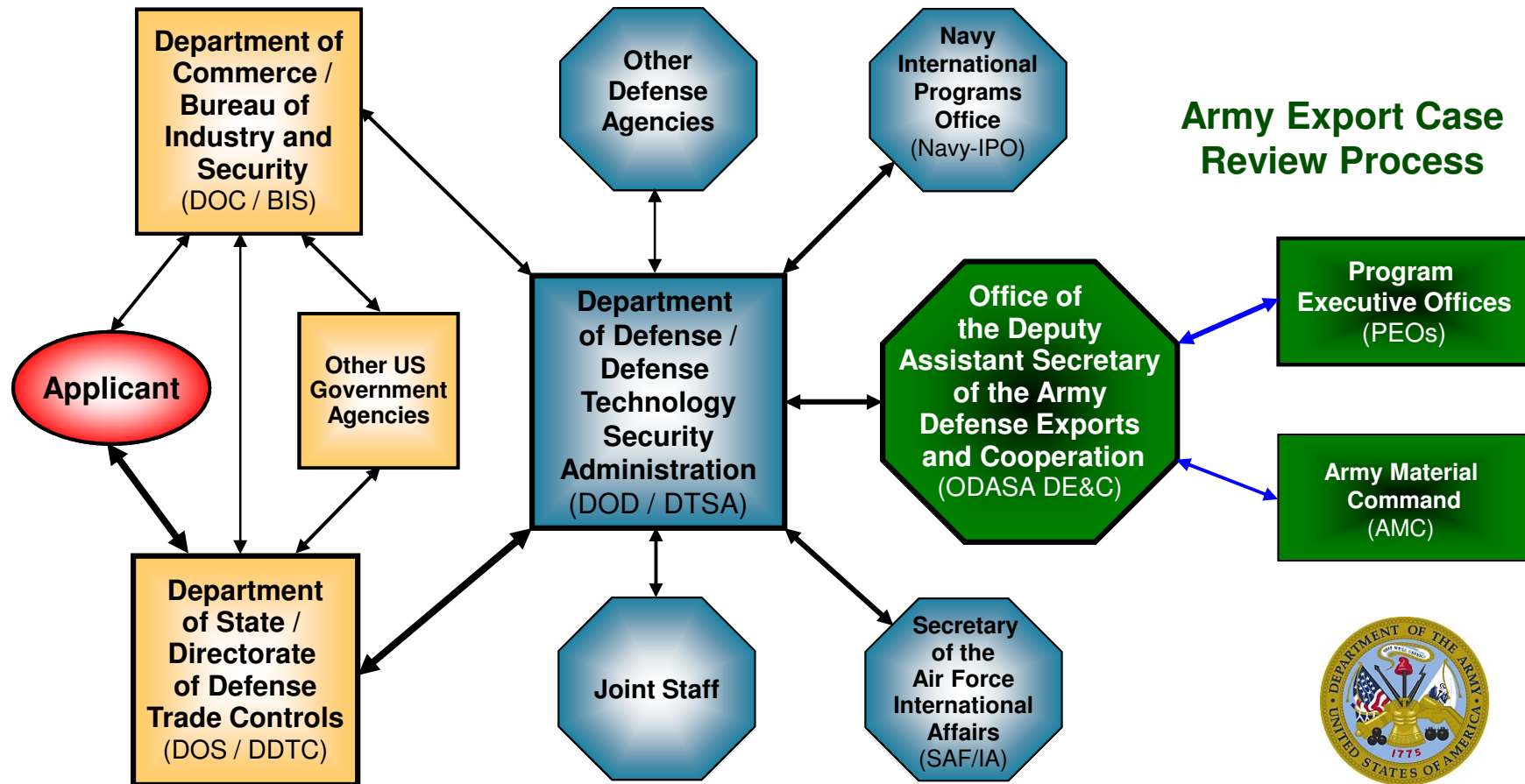
The ITAR*!

*International Traffic In Arms Regulations

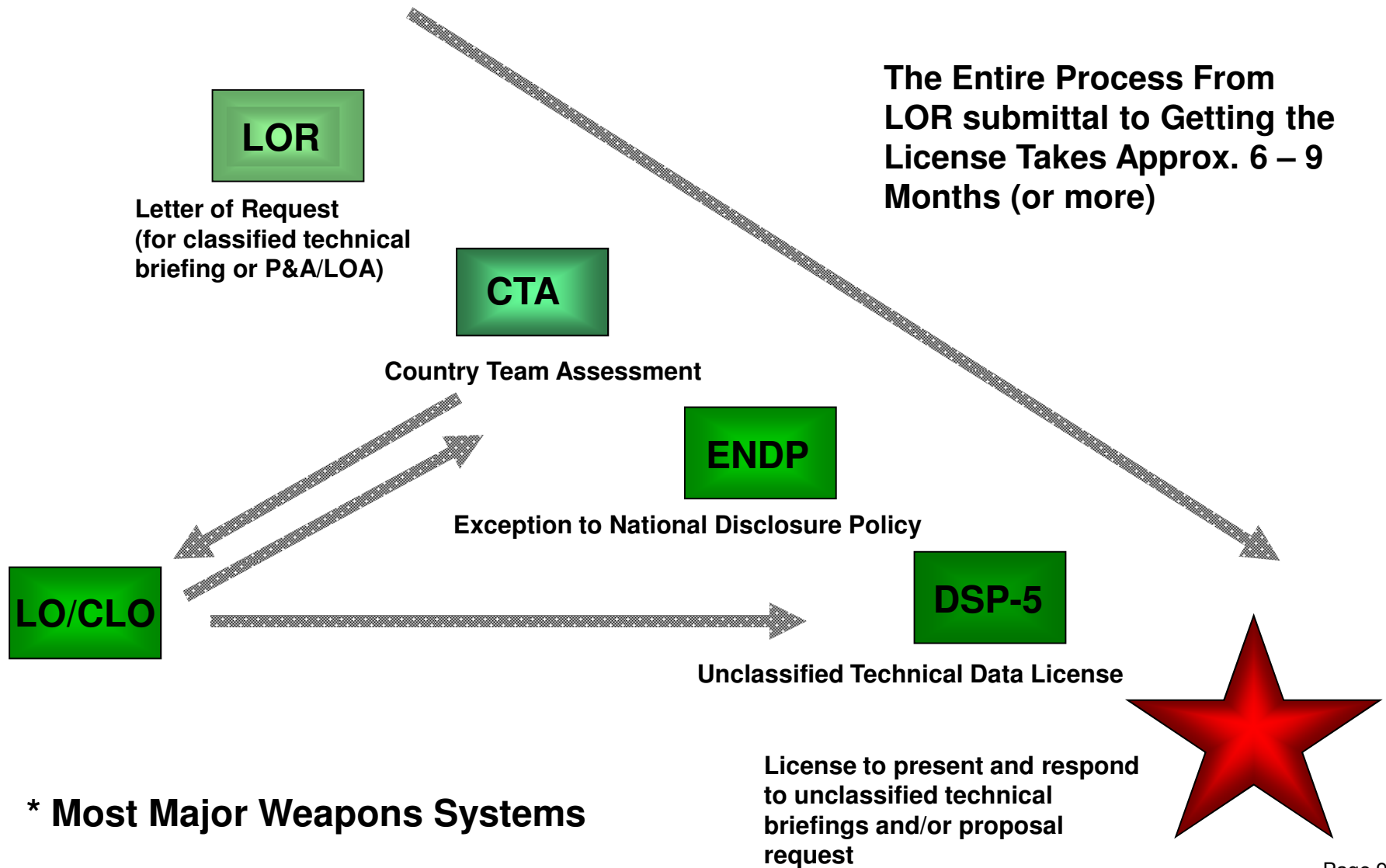
Key Players in Technology Transfer and International Program Security



Process Stakeholders



Combined Process*



National Security Decision Memorandum 119 (NSDM 119)

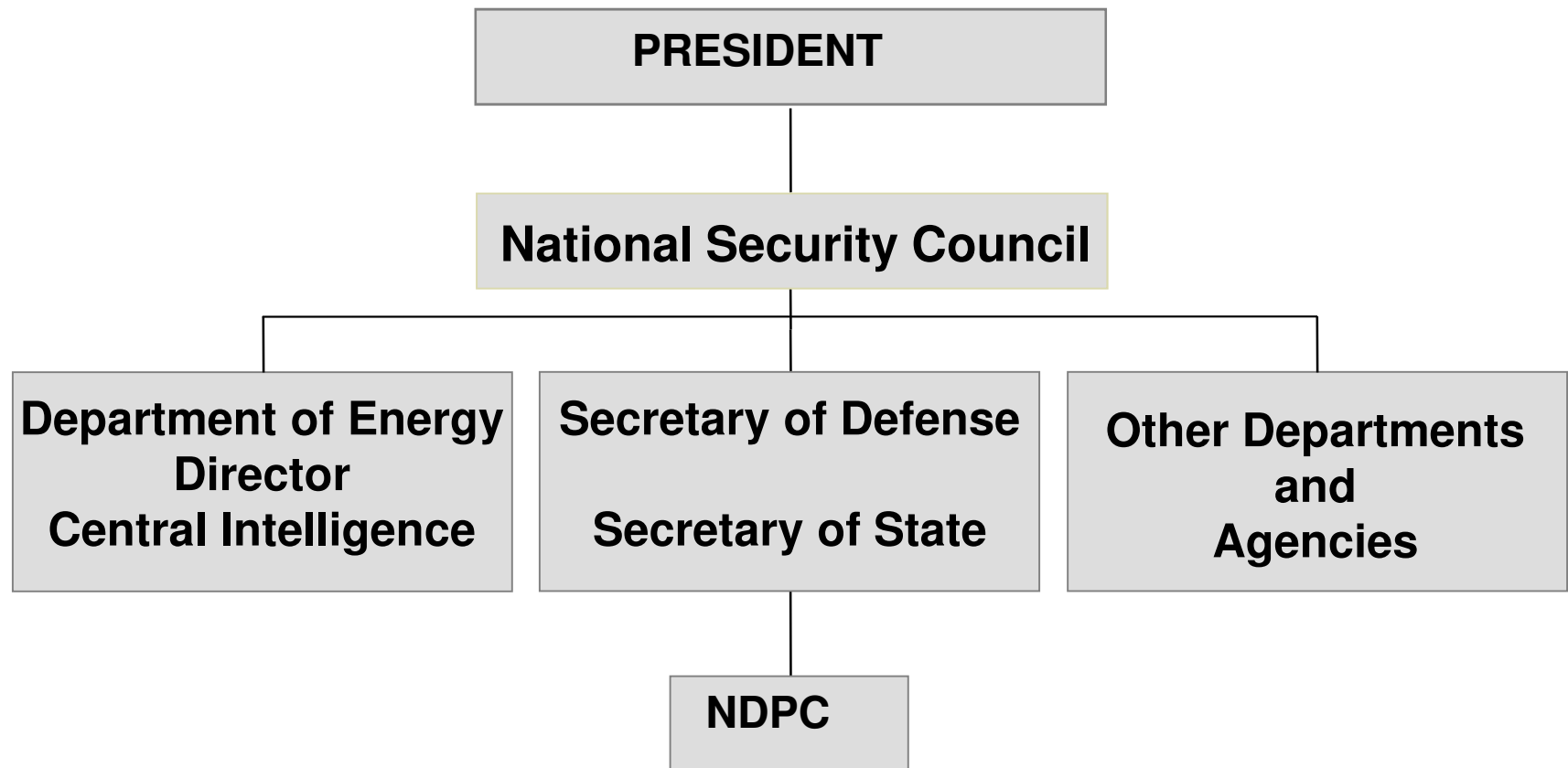
- NSDM 119 is the basic policy that governs the disclosure of U.S.CMI to foreign governments and international organizations and their representatives.
- NSDM 119 charges the Secretary of Defense and the Secretary of State with the responsibility for implementing the policy. It requires the Secretaries of Defense and State to form an interagency mechanism to establish procedures to carry out this directive.
- This mechanism is the National Military Information Disclosure Policy Committee (NDPC).

Executive Order 12958

- Establishes the Executive Branch's National Security Information Program
- Implemented by OMB /Presidential Directives, Information Security Oversight Office (ISOO) Directive 1, and in DoD by 5200.1-R

National Disclosure Policy (NDP-1)

National Policy and Procedures for the Disclosure of Classified Military Information to Foreign Governments and International Organizations



NDPC General Members

- Secretary Of Defense (Chair)
- Secretary Of State
- Department Of The Army
- Department Of The Navy
- Department Of The Air Force
- Joint Staff

NDPC Special Members

- Central Intelligence Agency
- Department of Energy
- Under Secretary of Defense (Policy)
- Under Secretary of Defense (AT&L)
- Under Secretary of Defense (I)
- Assistant Secretary of Defense (NII)
- Assistant to the Secretary of Defense
(NCB Defense Programs)
- Defense Intelligence Agency
- Missile Defense Agency
- National Geospatial-Intelligence Agency
- National Security Agency

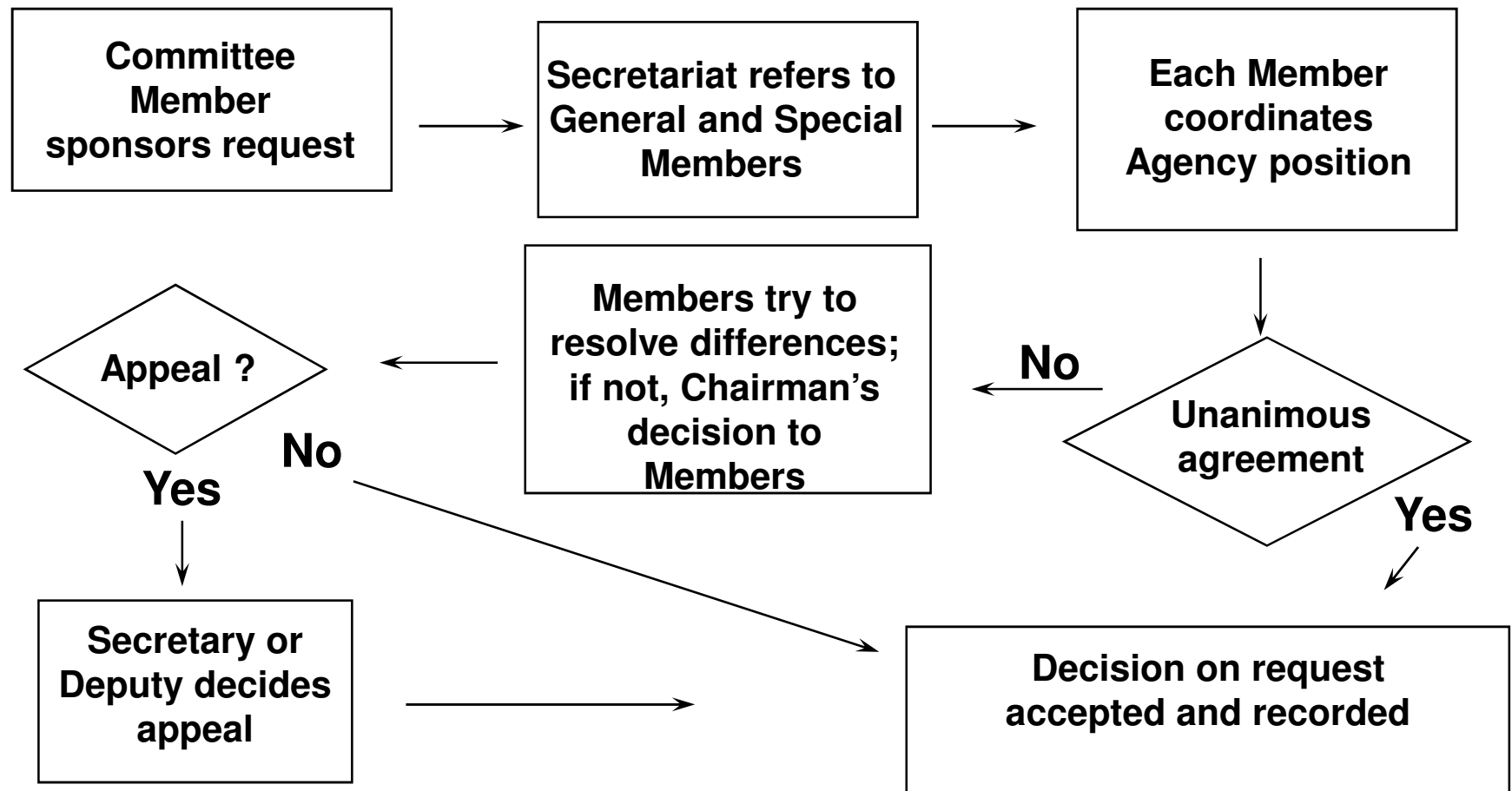
NDP-1 Disclosure Criteria

- Disclosure is consistent with US foreign policy and national security objectives concerning the foreign government or international organization.
- Disclosure is consistent with US military and security objectives.
- The foreign recipient will afford US information the same degree of security protection as that provided to it by the United States.
- Disclosure will result in a clearly defined benefit for the United States.
- Disclosure is limited to information necessary to the purpose for which disclosure is made.

Delegations of Disclosure Authority

		Country A	Country B	Country C
Organization, Training and Employment of Military Forces	1	S	C	
Military Materiel and Munitions	2	S	C	
Applied Research and Development Information and Materiel	3	C		
Production Information	4			
Combined Military Operations, Planning and Readiness	5			
U.S. Order of Battle	6			
North American Defense	7			
Military Intelligence	8	TS	S	X

National Disclosure Policy Exception Process



NSTISSP 8 , a limited distribution document issued by the Committee on National Security Systems (CNSS), provides the policy for the export or release of INFOSEC information (COMSEC and COMPUSEC) and material. DoD Instruction S-5225.1 implements the NSTISSP.

The sharing of COMSEC information also is subject to coordination with the Joint Staff in accordance with Chairman, Joint Chiefs of Staff Instruction 6510.06A

Committee on National Security Systems (CNSS)

Raytheon
Integrated Defense Systems



Committee for National Security Systems

Senior policy making forum for discussion of policy issues, sets national policy, and promulgates direction, operational procedures, and guidance for the security of national security systems through the CNSS issuance system.

21 Voting Members

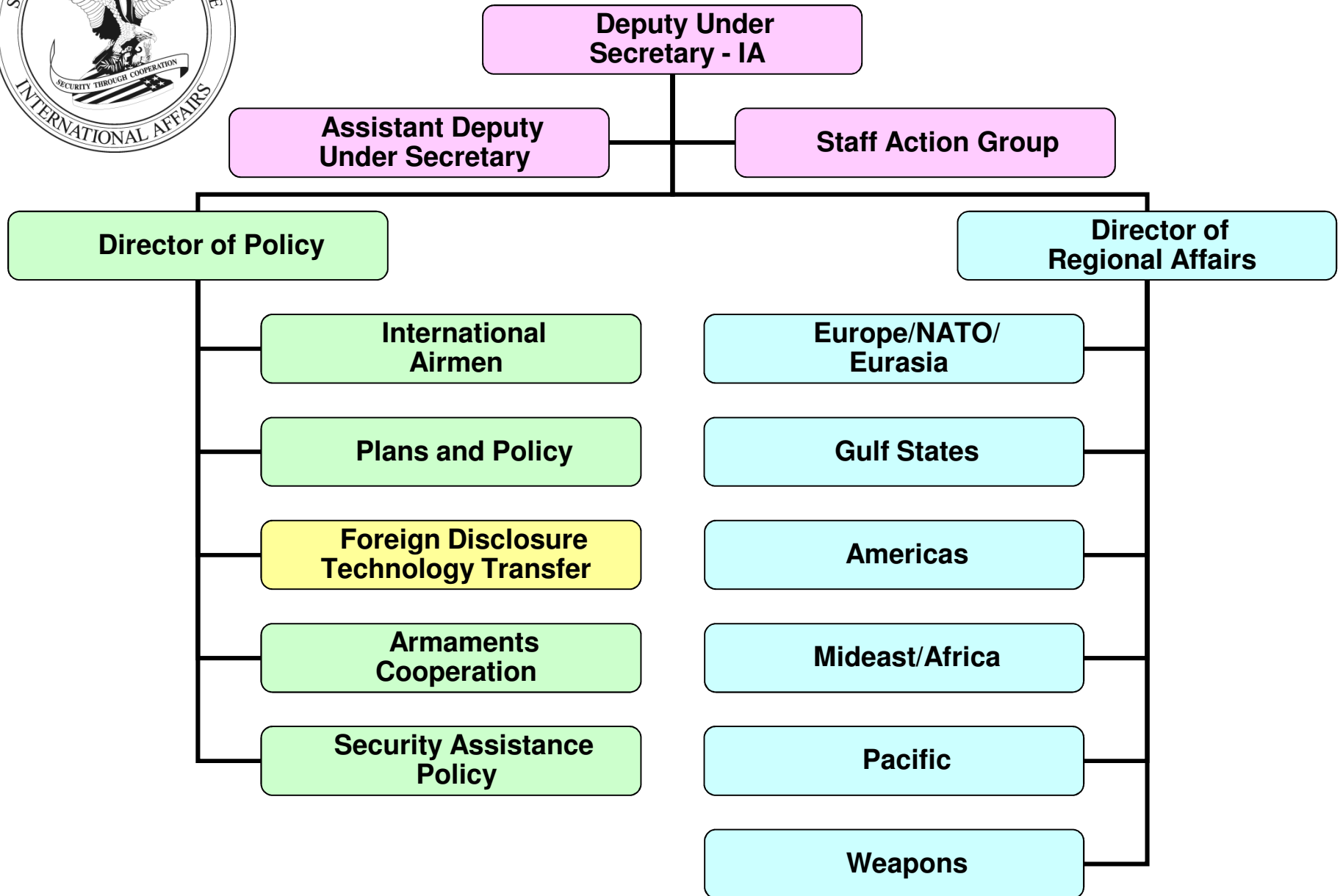
DHS
GSA
NSC
DNI
OMB
Navy
State

Commerce
Energy
Justice
Transportation
Treasury
Marine Corps
Air Force

DIA
DOD
Army
CIA
NSA
FBI
JCS



SAF/IA Organization



Foreign Disclosure and Technology Transfer Division

Mission: SAF/IAPD is the designated Air Force disclosure authority for release of classified and controlled unclassified weapons systems, technologies and information to foreign governments and international organizations in support of Air Force, DoD and commercial international programs.

Functions:

Develops Foreign Disclosure and Technology Transfer Policies and Position

- Represents SECAF on the interagency National Disclosure Policy Committee (NDPC)
- Represents Air Force on the DoD Arms Transfer Policy Review Group (working level)
- Develops foreign disclosure and technology transfer policies and guidelines contained in the National Disclosure Policy (NDP-1), the International Traffic in Arms Regulations (ITAR), and other US Government, DoD and Air Force Directives and Instructions
- Prepares Air Force requests for exceptions to National Disclosure Policy
- Develops Air Force guidelines for release of weapons systems, capabilities, technologies, tactics and training
- Develops Air Force position on defense industry applications to export defense articles, services and dual-use items

Provides Program Support

- Supports OSD security surveys of foreign nations' information, personnel, and physical security programs
- Delegates disclosure authority to MAJCOMs/FOAs/DRUs and other DoD organizations, as necessary, in support of USAF international programs
- Approves requests to disclose classified and controlled unclassified documents, briefings and other information
- Approves foreign national visits to USAF bases and defense contractor facilities

Manages Air Force Foreign Disclosure and Technology Transfer Programs

- Oversees MAJCOM Foreign Disclosure Activities
- Provides foreign disclosure training and education to disclosure and other USAF personnel involved in international program activities

DASA DE&C Core Mission Areas

Building & Sustaining U.S. (& Partner) Warfighting Capabilities

Export Controls/Tech Transfer

- Weapon Systems Export Policies
- Technology Transfer/
Foreign Disclosure
- Munitions Licenses
- Direct Commercial Sales
- Leases (10 USC § 2667)

Export Control & Tech Transfer

Security Assistance

Security Assistance

- Foreign Military Sales
- International Military
Education & Training
- Presidential Drawdowns
- Excess Defense Articles
- Co-production
- Leases (22 USC § 2796)

Armaments Cooperation

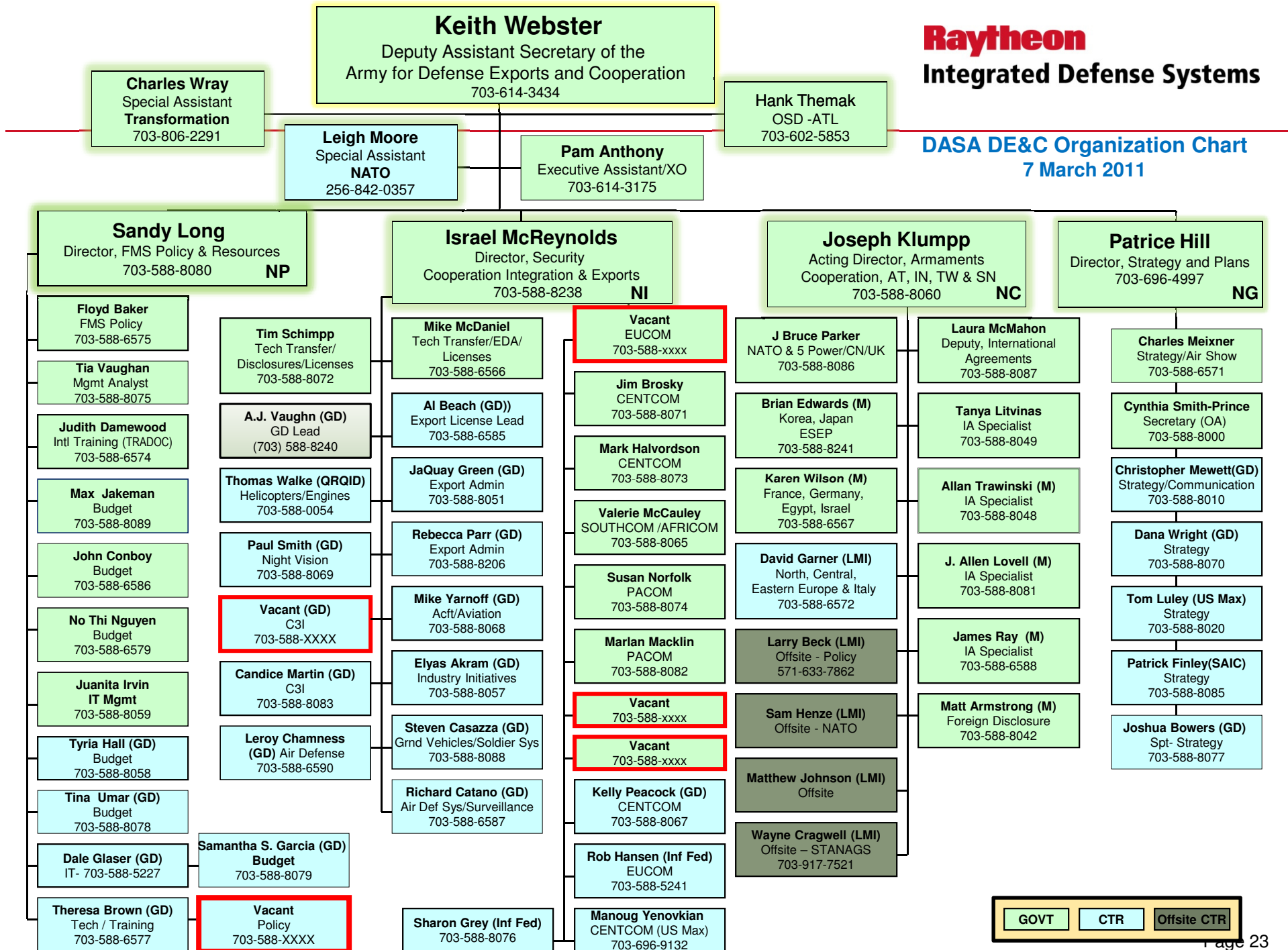
Armaments Cooperation

- RDT&E Info Exchanges
- Cooperative Research,
Development & Acquisition
- Cooperative Production
- RDA Personnel
 - Exchanges
 - Assignments
- Foreign Comparative Test
- Cooperative RDT&E Loans
(22 USC § 2796d)

Representation

- Joint Military Conferences
- NATO Army Armaments Group
- OSD/Bilat/Multilat Fora
- Senior National Rep (Army)
- Air shows/exhibitions

- ✓ Policy
- ✓ Resources
- ✓ Oversight/Approvals



ARMY EXPORT POLICY

WHY

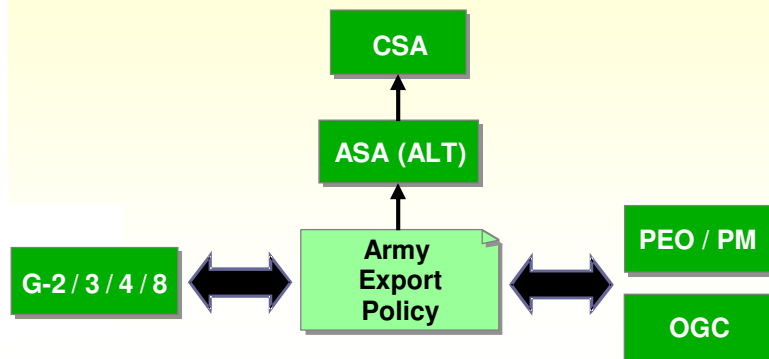
- ◆ Presidential Decision Directive (PDD34)
 - ◆ Sets criteria to evaluate potential arms transfers
- ◆ SECDEF Strategic Vision
 - ◆ Maintain U.S. forces' operational edge
 - ◆ Increase access to foreign facilities
 - ◆ Continue to pursue coalition building
- ◆ CSA Transformation Plan
 - ◆ Operationally and tactically agile
 - ◆ Dominate in all operating environments
 - ◆ Ensure protection to the warfighter
 - ◆ Preserve / protect Army's technology overmatch

HOW DEVELOPED

- ◆ Support international programs; while protecting national security equities / Army's technology overmatch
 - ◆ Balance "share" and "protect" interests
- ◆ Technology Protection is a front-end function for weapon systems
 - ◆ Program Protection Plan
 - ◆ Technology Assessment Control Plan
- ◆ Critical Program Information
 - ◆ Security Classification Guide
 - ◆ Delegation of Disclosure Letter
 - ◆ Risk assessment / foreign availability
- ◆ LO/CLO Policy
- ◆ National Disclosure Policy

- JTRS
- Win-T
- FBCB2

WHO DECIDES



* Developed by DASA DEC

HOW IMPLEMENTED

- ◆ Issued to Army stakeholders
- ◆ Army Position of Record
 - ◆ Country / Configuration Release
 - ◆ Export variants
 - ◆ Transfers of hardware / software / information / Data
 - ◆ Special Security Protection / Procedures
 - ◆ Anti-tamper
 - ◆ No software source code for sensitive systems
 - ◆ Limit maintenance test procedures/equipment
- ◆ Embedded in Army Foreign Military Sales (FMS), Direct Commercial Sales (DCS) and International Cooperation Program processes

Army Export Policy Actions

Approved Export Policies

- ◆ Apache Longbow
- ◆ Hellfire Missile
- ◆ SIIRCM
- ◆ SIRFC
- ◆ 120mmAEI Tank Ammunition
- ◆ 120mm Tungsten
- ◆ Javelin*
- ◆ M56/M58 Smoke Generator
- ◆ TOW / ITAS (Aero, Bunk, RF) *
- ◆ Patriot PAC-3
- ◆ AN/MPQ-64 Sentinel Radar
- ◆ SADARM
- ◆ Night Vision Devices

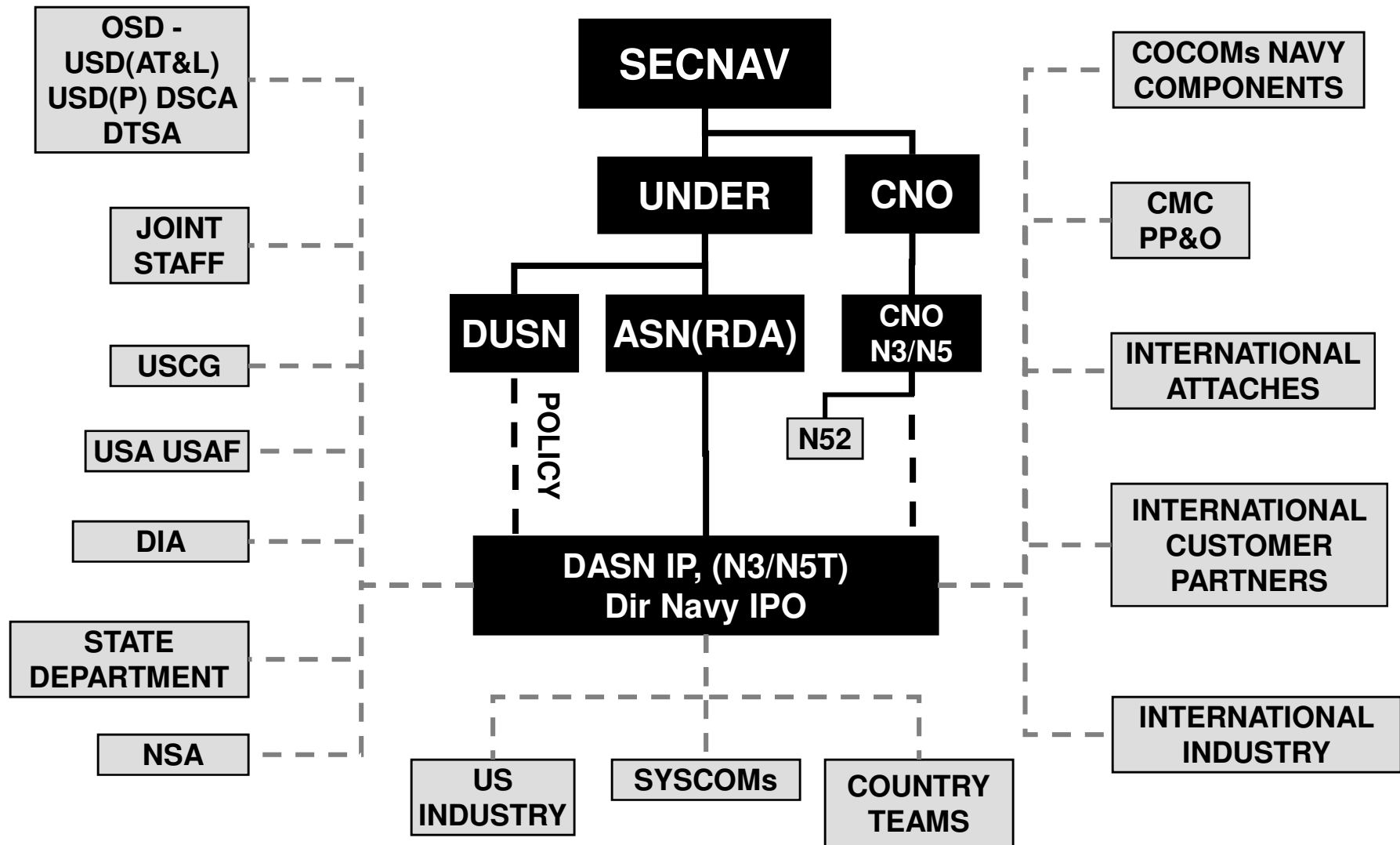
* Just issued update

Ongoing Policy Initiatives

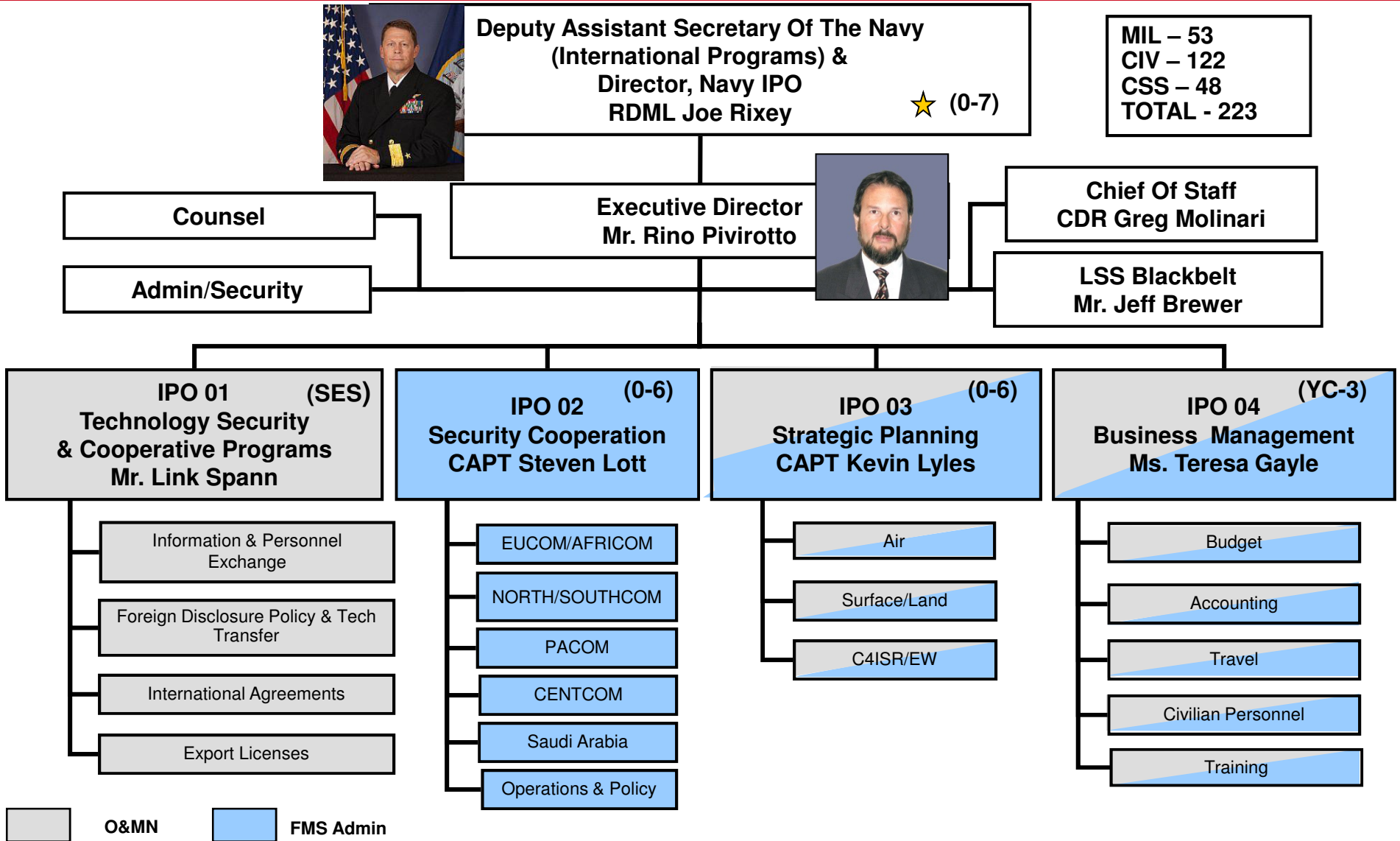
- ◆ Update Patriot PAC-3
- ◆ Update Apache Longbow
 - Block III
- ◆ Update Hellfire Missile/APKWS
- ◆ Update Night Vision Device**
- ◆ Update Sentinel Radar
- ◆ Future Combat System (FCS)
- ◆ C4IS&R
 - WIN-T, FBCB2, etc.
- ◆ Aerial Common Sensor
- ◆ Chem / Bio
- ◆ FBCB2***
- ◆ Fuzes***
- ◆ Armed Recce Helicopter (ARH)***

** In staffing ***Recent new start

Navy Relationships



Navy International Programs Office



Strategic Linkage

- International Business Capture
- Policy Linkage

Technology Security

- Disclosure Policy
- Export Licensing
- CFIUS

Cooperative Programs

- International Agreements (IAs)
- Information And Personnel Exchange (IEAS/ESEP)

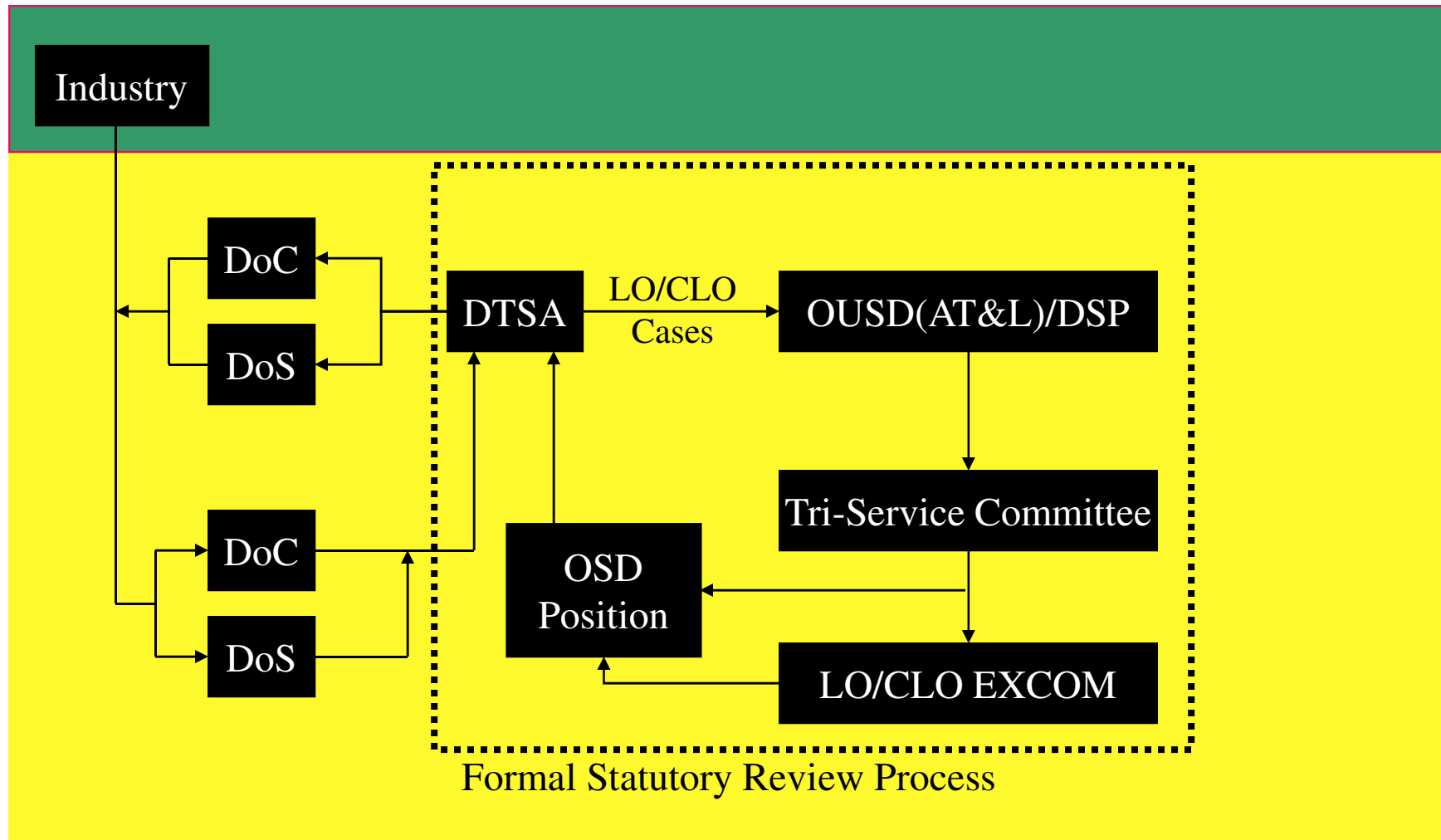
Security Cooperation

- Foreign Military Sales (FMS)
- Excess Defense Article (EDA) Transfers
- International Training
- 1206 Programs
- Presidential Drawdowns

Country Team Assessment to include:

- Reason country desires the article
- Impact on country's force structure
- Probable regional reaction
- Ability to maintain/operate
- Source of funding
- Relevant human rights considerations
- Whether USG should approve transfer or not

Low Observable/Counter Low Observable (LO/CLO)



CRITICAL LO TECHNOLOGIES

The following technologies, though not all inclusive, are critical to achieving LO capability at a system level. The Service component LO/CLO OPR will assess component performance requirements against thresholds defined by DoDI S-5230.28 to support proper level of classification.

- a. Radar absorbing material (RAM) and radar absorbing structure (RAS) including but not limited to magnetic and dielectric particles plus loaded sheets and films, controlled resistivity and/or conductive films, loaded cores and foams, whiskers and flakes.
- b. Multi-layer camouflage systems using different technologies to reduce vehicle detectability, which do not impair mobility or agility of the platform.
- c. Reduction of weapon platform signature or component system due either active or passive techniques that result in shaping, cooling, or degrading the detection in any spectrum.
- d. Materials which use polymers loaded with carbon fibers, dielectric RAM, honeycomb, RAP, Carbonyl Iron Powder (CIP), polyurethane, graphite fibers, indium tin oxide (ITO), microwave absorber, ferrites, sputtered metals on cloth, Jaumann designs, IR transparent binders, ceramic, reticulated foam, diamond coatings, electrochromics, thermochromics, thin films, and millimeter wave aerosols.
- e. Ceramic RAM and RAS. High temperature dielectric ceramic RAM (>300 °F).
- f. High temperature magnetic RAM (~300 °F).
- g. Graded dielectric (e.g., dipped ink) honeycomb.
- h. Composites combined or formed into integral radar absorbing structures.
- i. Broadband (>30% bandwidth), lightweight (<2lbs/sq ft) magnetic RAM.
- j. Raw, passivated (anti-rust treated) carbonyl-iron or similar microspheres.
- k. Any RAM designed for or usable in extreme environmental conditions.
- l. Aircraft or missile LO compatible rain erosion coatings.
- m. Multispectral surface treatments applied to weapon system platforms to improve IR/visual characteristics.

- n. Processes which use microencapsulation or microspheres which reduce thermal, radar, or visual detection.
- o. Treatments that reduce the acoustic signature by using active noise cancellation, modulation of turbofan engines or rotor blades or advanced passive techniques.
- p. Computer codes which use classified measured data to analyze, predict, or design signature reduction solutions.
- q. Manufacturing process and equipment specific to producing LO components.
- r. RCS/IR measurement equipment and prediction software.
- s. LO antennas, radomes, and windows.
- t. IR signature reduction materials and techniques including but not limited to paints, controllable emissivity and/or reflectivity characteristics, E-O characteristics.
- u. Visual, including color and dynamic variations, and acoustic signature reduction.

CRITICAL CLO TECHNOLOGIES

The following technologies are critical to achieving robust CLO capability at a system level. The Service LO/CLO OPR will assess performance capabilities against thresholds defined by DoDI S-5230.28 to support proper level of classification.

se Systems

Elemental Devices: Devices whose application is general in nature.

- Power transistors
- Digital signal processing (DSP) chips
- Ferrite components: oscillators
- Monolithic Microwave Integrated Circuits (MMICs)
- Low Noise Amplifiers (LNAs)
- A/D & D/A converters
- Millimeter wave sources (solid state & tube)
- Doppler filters
- Circulators

Complex Devices/Methods: Devices/methods whose application is more specific in nature.

RF Devices:

- Exciters
- Receivers
- Waveform generators
- Transmit/Receive modules
- Electronically steered antennas
- Frequency synthesizers

IR Devices:

- Focal plane arrays
- IR domes/windows

RF Processing Techniques:

- Complex radar waveforms and processing
- Space-time adaptive processing
- ESM for LPI waveforms
- Adaptive waveforms
- ISAR/SAR
- Adaptive digital beamforming and nulling
- Super resolution

IR Processing Techniques:

- Non uniformity compensation
- Multi-frame image processing
- Clutter discrimination algorithms

General Techniques:

- Sensor fusion
- Interference suppression
- Non-cooperative target recognition
- High Power Microwave

Miscellaneous:

- Application specific integrated circuits (ASICs)
- Methods designed to exploit unique LO signature characteristics

CLO Subsystems: Complex collections of devices for which performance objectives include the ability to perform a CLO function. Performance is typically determined relative to some LO signature characteristic, such as RCS. Examples of CLO subsystems are:

- RF sensors
- Fuzes
- IR sensors

CLO Systems: Collections of devices and subsystems that perform a specific CLO war-fighting function. Performance is typically determined relative to some LO signature characteristic, such as RCS. Examples of CLO systems are:

- Surveillance radar systems (e.g. SPY-I, JSTARS)
- Sensor fusion systems (e.g., Cooperative Engagement Capability)
- Fire control radars (e.g., Multi-Function Radar)
- Missiles , Directed Energy (e.g., AMRAAM, AIM-9X, ESSM, STANDARD)

CLO Systems of Systems: Groups of systems tied together functionally to create an entire CLO kill chain capability (initial detection through target kill). Examples of CLO systems of systems are:

- Ship self defense system (e.g., NATO Seasparrow)
- Integrated air defense system
- Air defense weapon system (e.g. Patriot)

Disclosure: Contractor Issues

- Many countries may require an ENDP
- What triggers an ENDP?
 - LOR for P&A?
 - LOR for Classified Brief?
 - LOR for LOA?
 - RFI/RFP to U.S. contractor?
- Is a favorable Country Team Assessment always required as a precedent for ENDP initiation?

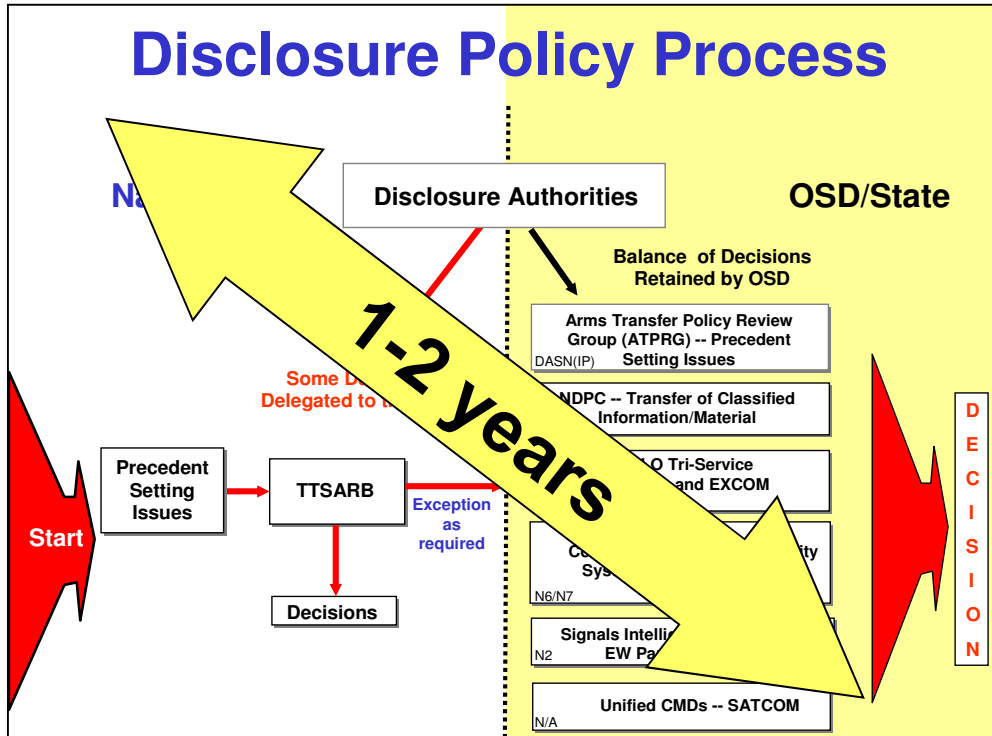
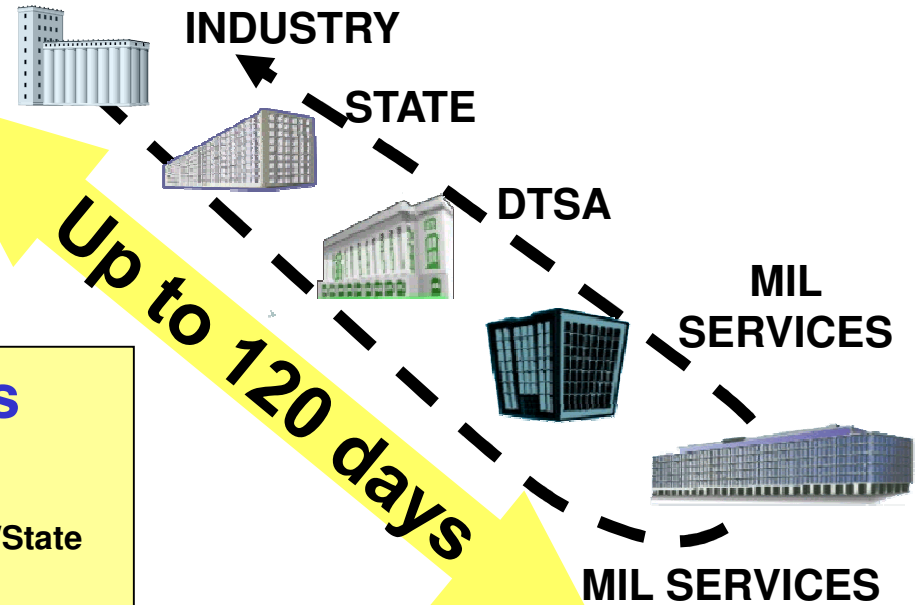
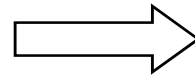
Contractors must understand impact of disclosure policy

Reality of Disclosure and Export Control Requirements

- Major sales will probably involve all release/export control processes
 - Many “moving parts” - 3 committees, 15 processes, 23 agencies, 45+ offices
 - **There is no single USG official or agency responsible for overall management of foreign disclosure and export control requirements**
 - Processes usually do not run concurrently
 - Competing/conflicting equities involved
 - May take several months to complete/reach consensus

Export License vs. Disclosure Process

Traditional industry View



Not well understood by industry

Disclosure Approval Precedes Export License Submission

Disclosure and Export Control Planning

- Essential part of overall program planning
 - Expedites release of data
 - Minimizes denial, return without action, restrictive provisos
 - Avoids problems associated with short notice/late requirements

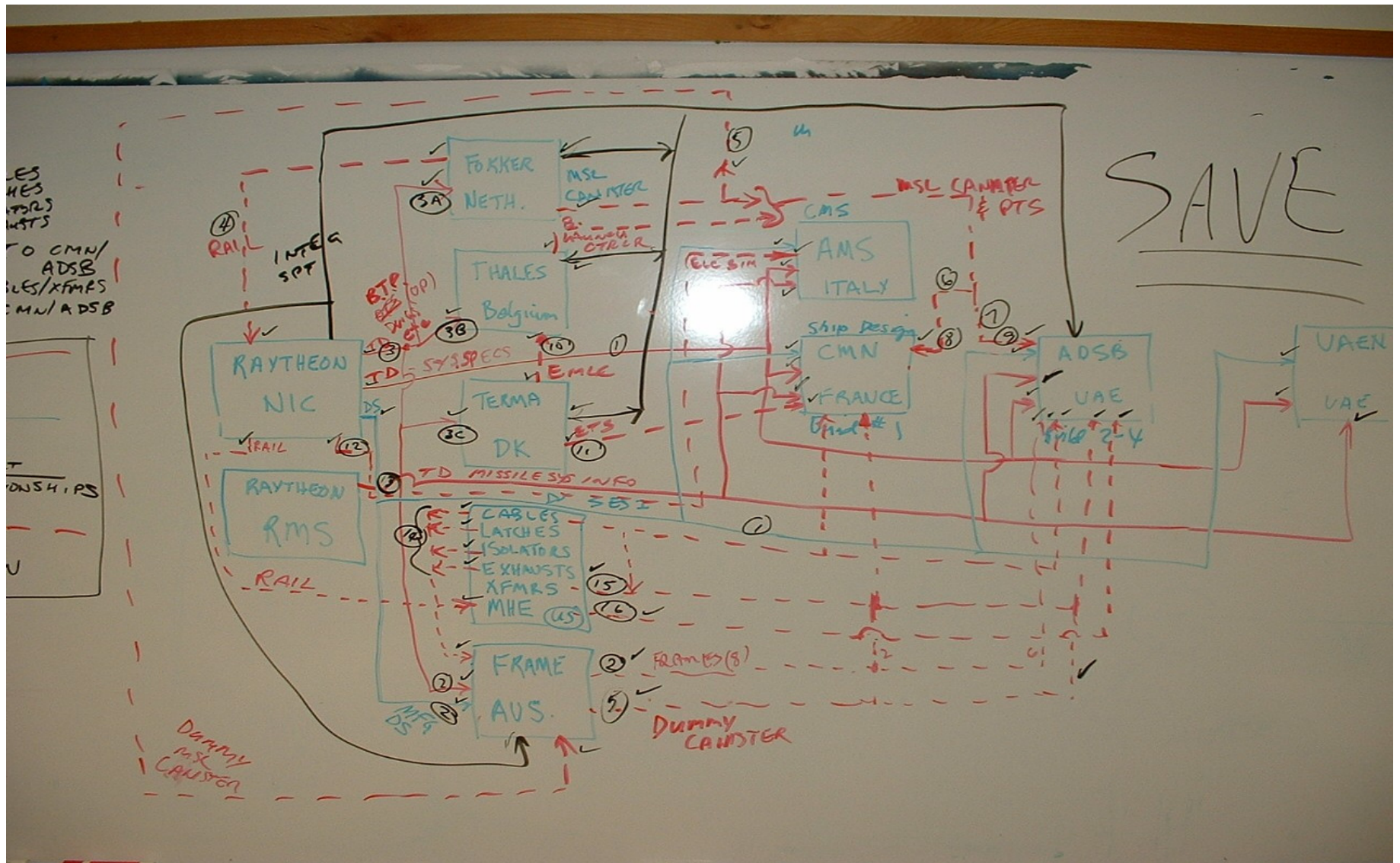
- Address all release/export requirements early in program planning
 - What needs to be exported/released?
 - To whom?
 - For what purpose?
 - Which locations?
 - Through which approval processes?
 - By what method of transfer?

Phases of the Business Deal

Marketing/Selling Activities	Capture	Implementation	Warranty/Post Sale Support
Meetings	Proposals or Offers	Design and Development	Maintenance
Demonstrations	Business Agreements (Offset Agreement)	Hardware Exports	Spares
Tours	Detailed Discussions	Installation and Integration	Retrofits
Determination of Customer Requirements (direct offset required?)	Negotiations (NC/NC trials)	Training	Upgrades
	Supplier Identification (foreign supplier?)	Maintenance	

Different export authorizations may be required at each phase

Program Export Planning (example)



Visual depictions of data, services and hardware flows

Tools for Export Planning (notional data)

ID	Task Name	Duration	Start	Finish	Predecessors	Resource Name	2007			
							Sep	Oct	Nov	Dec
1	Export Approvals for UAE SL-AMRA/	302 da	Wed 9/20	Thu 11/15			[Gantt bar from Sep to Nov]			
2	Internal RTN Review	60 da	Wed 9/20	Tue 12/12			[Gantt bar from Sep to Oct]			
3	PMO Rough Draft	15 da	Wed 9/20	Tue 10/10			[Task bar from Sep to Oct]			
4	USG Socialization	30 da	Wed 10/1	Tue 11/2	3		[Task bar from Oct to Nov]			
5	Customer Socialization	30 da	Wed 10/1	Tue 11/2	3		[Task bar from Oct to Nov]			
6	ELC/EO Review	15 da	Wed 11/2	Tue 12/1	4,5		[Task bar from Nov to Dec]			
7	TAA Submittal to DTC	0 da	Tue 12/1	Tue 12/1	6		[Task bar at Dec 1]			
8	Contract Award	0 da	Mon 7/2	Mon 7/2	10FF		[Task bar at Jul 2]			
9	USG TAA Approval - Congressional	241 da	Wed 12/1	Wed 11/14	7		[Gantt bar from Dec to Feb]			
10	USG Review (TAA)	90 da	Wed 12/1	Tue 4/17			[Task bar from Dec to Feb]			
11	DTC Prep For Pre Notification	60 da	Wed 4/18	Tue 7/10	10		[Task bar from Feb to Mar]			
12	Pre Notification	60 da	Wed 7/1	Tue 10/2	11,8		[Task bar from Mar to Apr]			
13	Congressional Notification	30 da	Wed 10/3	Tue 11/1	12		[Task bar from Apr to May]			
14	TAA Issuance	1 da	Wed 11/1	Wed 11/1	13		[Task bar at Nov 1]			
15	DSP Hardware Licenses	152 da	Wed 4/18	Thu 11/15	10		[Gantt bar from Feb to Nov]			
16	PMO Draft DSPs	30 da	Wed 4/18	Tue 5/29	10		[Task bar from Feb to Mar]			
17	ELC Review of DSPs	10 da	Wed 5/30	Tue 6/12	16		[Task bar from Mar to Apr]			
18	Submittal of DSP Hardware Lice	0 da	Tue 7/10	Tue 7/10	17,11		[Task bar at Jul 10]			
19	USG Review of DSP Licenses	90 da	Wed 7/1	Tue 11/1	18		[Task bar from Apr to May]			
20	Issuance of DSP Licenses	1 da	Thu 11/1	Thu 11/1	19,14		[Task bar at Nov 1]			
21	Post TAA Issuance Activities (option	87 da	Thu 11/15	Fri 3/14	14		[Gantt bar from Nov to Mar]			

MS Project is a good tool for export planning

Conclusion

- Recognize why releasability is an important part doing business and how it can impact the life cycle of program

Q&A