International Acquisition & Exportability (IA&E) Assessment Job Support Tool (JST)

Overview

Programs should conduct an IA&E Assessment as early as possible in a program's lifecycle to collect information and assess factors that affect international considerations and potential foreign involvement including **interoperability requirements**, **program protection considerations**, **cooperative opportunities**, and **international markets**. IA&E Assessment results should be used to establish the international involvement aspects of a program's initial Acquisition Strategy. Historically programs with a significant level of projected international activity have conducted an initial IA&E analysis to support program planning. Defense Acquisition Guidebook (DAG) Chapter 1 emphasizes the importance of conducting IA&E Assessments during the initial phases of the DoD acquisition process based on 10 USC 2431a (subparagraph (c)(2)(G)) and 10 USC 2350a (para (e)) and corresponding DoDI 5000.02 policy which requires early, comprehensive consideration of a program's international aspects within the Defense Acquisition System framework. The DAG recommends:

- Conducting an initial IA&E Assessment during the pre-Materiel Solution Analysis (MSA) phase to identify potential existing foreign solutions, International Cooperative Program (ICP) opportunities, foreign technology, or potential for future foreign sales
- Updating the program's IA&E Assessment during the MSA phase to identify specific existing or projected international agreements(s), Joint Requirements Oversight Council (JROC)-validated coalition interoperability requirements, international markets, and potential program protection issues and requirements

Organization

This Job Support Tool (JST) provides a framework and suggested approach for conducting an IA&E Assessment as recommended by the DAG and is organized as follows: Section 1 – Fundamental Policies, Section 2 – Analysis and Evaluation, Section 3 – Best Practices, and Section 4 – Documentation of Results. Sections 1 through 3 of this JST provide detailed guidance on how to develop an IA&E Assessment, and Section 4 provides overall guidance that can be used as a starting point to determine how the results of an assessment will be documented.

Relationship to Other JSTs

Conducting an IA&E Assessment is a logical precursor to defining the international considerations that should be addressed in the international involvement section of a program's Acquisition Strategy to comply with 10 USC 2431a (subparagraph (c)(2)(G)) and 10 USC 2350a (para (e)) and DoD 5000 series requirements. Please refer to the companion Acquisition Strategy – International Considerations JST for best practice guidance in this area.

Section 1 – Fundamental Policies

A. Interoperability Policy

1. Equipment

Equipment procured for U.S. forces employed in North Atlantic Treaty Organization (NATO), other allied, and coalition operations be standardized or at least interoperable with the equipment of allies and coalition partners. (DODI 2010.06, para 3.b)

2. Information Systems

Information technology that DoD Components use must interoperate with systems of joint, combined, and coalition forces to the maximum extent practical. (DoDI 8330.01, paragraph 3.a)

3. International Standardization Agreements

DoD complies, to the maximum extent feasible, with applicable materiel International Standardization Agreements (ISAs) ratified by the United States, subject to systems engineering tradeoffs. (DoDI 2010.06, paragraph 3.d) For systems that may be used in allied, partner-nation, coalition, or multinational operations, issues relating to applicable U.S.-ratified international standardization agreements will be incorporated in the derived system

requirements. (JCIDS Manual, Enclosure D, paragraph (6)(b)(7), pages D-62 and D-85) To achieve interoperability with the North Atlantic Treaty Organization (NATO) and coalition forces, pursuant to 10 USC 2457, program offices and procuring activities must, to the maximum extent feasible when needed to meet required capabilities, comply with U.S.-ratified materiel ISAs applicable to their acquisitions by citing their implementing documents in solicitations and contracts. (DoD 4120.24-M, Enclosure 4, paragraph 2.d, page 17) All International Cooperative Programs (ICPs) will consider applicable U.S.-ratified materiel international standardization agreements in accordance with Chairman of the Joint Chiefs of Staff Instruction 3170.01H. (DoDI 5000.02, Enclosure 2, paragraph 7.b.(1), page 92)

B. Program Protection Policy

1. Security Cooperation Objectives

It is DoD policy to make timely decisions that advance U.S. political-military objectives by building the capacities of allies and partners while maintaining U.S. operational and technological advantages and protecting critical technology from diversion to potential adversaries. (DoDD 5111.21, paragraph 3)

2. Protecting Critical Program Information

U.S. warfighter technological advantage will be maintained and operational effectiveness of DoD capabilities will be preserved through the identification and protection of Critical Program Information (CPI). CPI will be identified early and reassessed throughout the RDT&E program so that CPI protection requirements and countermeasures may be identified and applied as the CPI is developed and modified throughout the lifecycle as needed. CPI protection measures will be integrated and synchronized, then documented in the Program Protection Plan (PPP). (DoDI 5200.39, paragraph 3) Once their program's CPI has been defined, program managers will use their PPP to describe the program's CPI and associated mission-critical functions and components; address the threats to and vulnerabilities of these items; plan for the development and implementation of countermeasures to mitigate associated risks; and address exportability design considerations related to the program protection aspects of potential foreign involvement. (DoDI 5000.02, Enclosure 3, paragraph 13.b, page 99)

3. Protecting Trusted Systems and Networks

Program managers should take steps to protect mission-critical elements and components in USG/DoD Trusted Systems and Networks (TSN) through measures such as Systems Security Engineering (SSE), Supply Chain Risk Management (SCRM), Anti-Counterfeits, Software Assurance, Trusted Foundry, etc. (DoDI 5200.44)

4. Protecting DoD Information on Contractor Networks

Program managers should take appropriate steps to protect sensitive unclassified information about system-related design, applications, processes, capabilities, and items that reside on non-DoD (contractor) information technology systems and networks. (DoDI 8582.01)

C. International Involvement and Cooperative Opportunities Policy

1. Key Principles

International cooperative development programs are preferred over a joint or DoD Component unique program. (DoDD 5000.01, Enclosure 1, paragraph E1.1.18, page 8) Where appropriate, PMs should pursue cooperative opportunities and international involvement throughout the life cycle to enhance cooperation and improve interoperability. (DoDI 5000.02, Enclosure 2, paragraph 7.a, page 92)

2. Acquisition Strategy Requirements

Acquisition Strategies for Major Defense Acquisition Programs (MDAPs) and Major Automated Information Systems (MAIS) shall where appropriate consider international involvement, including Foreign Military sales (FMS) and cooperative opportunities per 10 USC 2431a (subparagraph (c)(2)(G)).

3. Milestone Review Requirements

Cooperative opportunities for all Acquisition Category (ACAT) level programs must be assessed at "an early point during the formal development review process of the Department of Defense" (normally at the first milestone decision) per 10 USC 2350a (para (e)) and should also be addressed in the program's International Involvement section of the Acquisition Strategy. (DoDI 5000.02, Enclosure 1, Table 2, page 53)

D. International Markets Policy

The acquisition strategy must reflect the Program Manager's understanding of the business environment; technical alternatives; small business strategy; costs, risks, and risk mitigation approach; contract awards; the incentive structure; test activities; production lot or delivery quantities; operational deployment objectives; opportunities in the domestic and international markets; foreign disclosure, exportability, technology transfer, and security requirements. (DoDI 5000.02. Enclosure 2, paragraph 6.a.(1), page 88)

Section 2 – Analysis and Evaluation

A. Interoperability Requirements

1. Determining Interoperability Requirements

Step 1

Review JCIDS documents, Concept of Operations (CONOPs), and other user documents to determine interoperability requirements including the Net-Ready Key Performance Parameter (KPP) and any requirements stated as desired system attributes.

Step 2

Review the program's Operational Viewpoint - 1 (OV-1) to identify system interfaces that must be defined to permit materiel interoperability and/or connectivity.

Step 3

Identify applicable U.S.-ratified International Standardization Agreements (ISAs) within NATO and/or the Australia, Canada, New Zealand, United Kingdom, and U.S. standardization forums.

- For NATO ISAs consult the NATO Standardization Office (NSO) website (requires registration)
- Australia, Canada, New Zealand, United Kingdom, and U.S. standardization forums consist of the American, British, Canadian, Australian and New Zealand (ABCA) Armies' Program, the AUSCANZUKUS Naval C4 group, the Air and Space Interoperability Council (ASIC), and the Combined Communication Electronics Board (CCEB). Contact DoD Component personnel involved in these forums for assistance in identifying ISAs relevant to a specific program.

Step 4

Discuss interoperability requirements with the user to determine correct tradeoff balance, then incorporate appropriate ISAs in specifications, statements of work, and other contractual documents

2. Analysis & Evaluation -- Key Areas

What allied and friendly nation interoperability requirements have been established by the user community?

What interfaces must be controlled in derived systems requirements (specifications, statements of work, etc.,) to achieve the desired interoperability?

Are there applicable U.S.-ratified ISAs that should be included in derived systems requirements and incorporated in solicitations and contracts?

Are trade-off analyses with the user required to determine the extent interoperability that should be sought in development of the system?

What are the projected U.S., International Organization (NATO, ABCA, etc.), and allied/friendly nation resource implications, cost estimates, and budgeting efforts, as applicable, to achieve required/desired interoperability outcomes?

B. Program Protection Considerations

1. Determining Program Protection Requirements

Step 1
Identify the sensitive information, CPI and/or mission-critical functions and components handled or transmitted via USG/DoD Trusted Systems and Networks (TSN) that are part of, relate to, or document the system's design (to the extent possible).

Step 2
Identify program protection considerations that must be factored into the assessment in the following areas: Defense Exportability Features (DEF) design and development, Systems Engineering (SE) and Systems Security Engineering (SSE) program protection tradeoff analyses in the Systems Engineering Plan (SEP), and specific program protection measures (e.g., information security, Anti-Tamper (AT), and TSN) needed to facilitate international involvement.

Step 3
If it is early in a program before the system design is established, it is possible to gain general situational awareness on Technology Security and Foreign Disclosure (TSFD) boundaries by analyzing relevant policies and precedent-setting release decisions from analogous systems with comparable CPI and or mission-critical functions and components. This analysis should include review and assessment of precedent-setting TSFD and export control decisions on analogous systems in documents such as:

- Delegation of Disclosure Authorization Letters (DDLs)
- National Disclosure Policy Committee (NDPC) Record of Actions
- Low Observable Counter Low Observable (LO/CLO) EXCOM Decisions
- National Security Agency (NSA) Communications Security (COMSEC) release decisions
- Export license provisos
- Intelligence community products release decisions
- Overall USG/DoD program protection policies and practices related to protection of sensitive system design-related information on USG/DoD and contractor TSNs

Step 4
Network with the program's Foreign Disclosure Officer (FDO) and DoD Component International Program Organization (IPO) disclosure personnel to identify relevant policies and precedent-setting TSFD decisions related to the program/system. The results of this analysis should be used to identify the set of TSFD authorizing processes (sometimes referred to as "pipes") that will assess and issue decisions regarding future foreign release of the capabilities, critical technologies, and critical/sensitive classified and controlled unclassified information for the program/system.

Step 5
Once the applicable TSFD "pipes" have been identified and the TSFD boundaries for the program/system have been established, assess the following:

- Areas where TSFD-required differential capabilities or additional anti-tamper measures would likely be required
- Areas where foreign government and/or industry involvement in cooperative development/production would likely not be authorized by TSFD and/or export control authorities
- Areas where foreign industry participation would likely be authorized from a TSFD and export control decision-making perspective
- Technology that – based on TSFD and/or export control decisions – may need to be black-boxed with only form, fit, and function interface information provided to potential partner/customer nations

Step 6
As the system design matures, update this initial assessment and associated TSFD and export control decisions in consultation with the program's FDO, DoD Component IPO, and TSFD process owners.

2. Analysis and Evaluation -- Key Areas

What sensitive information, CPI and/or mission-critical functions and components will likely be included in the system design and documentation efforts?

What system characteristics and/or configuration items may require Defense Exportability Feature (DEF) development of differential capabilities from the DoD configuration?

What configuration items may require development of additional anti-tamper measures to allow foreign transfer?

If a cooperative development or production program is under consideration, which system design, development and production areas are likely to be restricted to U.S.-only development or production efforts. Which areas will likely be available to foreign partners (government or industry) for future program efforts that will be unaffected by projected TSFD and export control boundaries and restrictions?

C. Cooperative Opportunities

1. Identifying Cooperative Opportunities

Step 1

Identify foreign off-the shelf-equipment that might meet DoD requirements or could be modified to do so by ensuring market research (Requests for Information, internet searches, etc.) is conducted to examine foreign alternatives.

Step 2

Identify planned or ongoing foreign acquisition programs that might meet DoD requirements or could be modified to do so by networking within the international community including Component IPOs, Security Cooperation Organizations (SCOs), discussions with DoD NATO Main Armament Groups representatives, foreign embassy officials, U.S. industry, etc. and by reviewing defense trade publications and internet sources.

Step 3

Identify global technology that could be relevant to the program/system, particularly program technologies with low Technology Readiness Levels (TRLs).

Step 4

Engage global leaders for needed/desired technology by networking within the international community and consulting with the following:

- Service laboratory experts
- Service overseas offices (Office of Naval Research (ONR) Global, Air Force Office of Scientific Research (AFOSR) International Office, and Army RDECOM International Technology Centers)
- Defense Advanced Research Projects Agency (DARPA)
- Component participants in major international S&T/R&D forums (NATO Science and Technology Organization (STO), The Technology Cooperation Program (TTCP), and other similar S&T forums
- Intelligence Community
- U.S. industry

Step 5

Identify other countries that have similar operational requirements by networking within the international community and consulting with the following:

- Component IPO personnel
- DoD personnel involved NATO, OSD, Joint Staff, COCOM, and Component international forums
- SCOs in major collaborative partner countries
- Major partner Washington, DC embassy personnel
- U.S. industry business development personnel

2. Analysis & Evaluation -- Key Areas

Are there any foreign off-the-shelf systems that might satisfy the requirement (or with modification)?

Are there allied and/or friendly countries with common or similar operational requirements for a new development or major modification program/system?

Does any country (or group of countries) have a planned or ongoing acquisition program addressing similar requirements?

What new technologies are needed/desired for the program/system, and are there global leaders in these technology areas that could either provide or cooperate with the DoD in maturing these technologies?

D. International Markets

1. Assessing International Markets

Step 1A (Replacement System)

If the system will replace an existing system:

- Identify foreign operators of current system and estimate the potential demand for the system based on consultation with Component IPOs, SCOs, U.S. intelligence community, and U.S industry to determine the countries' modernization plans
- Identify operators of comparable foreign systems and estimate potential demand considering remaining service life of the foreign system and the likelihood of the countries procuring a U.S. system based on discussions with Component IPOs, SCOs, and U.S industry

Step 1B (New Capability)

If the system is a new capability rather than a replacement, estimate the potential demand from countries that might have an operational requirement for self-defense needs, their typical role in coalition operations, and budget availability based on discussions with Component IPOs, SCOs, U.S. intelligence community, and U.S industry.

Step 2

Develop a rough order of magnitude (ROM) estimate of potential international sales based on the above consultations, and update the initial ROM estimate as additional information becomes available. (Note: for programs that envision substantial international involvement throughout the life-cycle, acquiring subject matter expertise from government or industry sources to estimate global defense marketplace demands for the system during its early development phases should be considered).

Step 3

As the program progresses through the Defense Acquisition System, ensure the Geographic Combatant Commanders' (GCC) views on providing the capability to specific countries in their Areas of Responsibility (AoR) are factored into the assessment.

2. Analysis & Evaluation -- Key Areas

What are U.S. industry's and/or subject matter experts' views regarding the potential for international cooperation and/or future sales for the system being developed or modified? How reliable do you think they are?

Taking into account the answers to the preceding questions, does your program have analytically-based ROM estimates of potential international cooperation and/or future sales of the system?

If yes, are the ROM estimates current or should they be updated? If no ROM estimates exist, how could your program develop ROM estimates for OSD, DoD Component, and PEO/program-level use in initial domestic and international program planning, including defense exportability business case analysis?

Section 3 – Best Practices

PMO Role

This JST is intended to help Program Management Offices (PMOs) plan and conduct their program's IA&E Assessment. PMO assessment teams should tailor the approach for their programs/systems based on key IA&E factors relevant to the program consistent with DoD 5000 series guidance and DAG recommendations. Flexibility and creativity in conducting the actual assessment should be encouraged. In general, IA&E Assessments should organized and conducted (or at a minimum, orchestrated) by the PMO. DAG Chapter 1 (paragraph 4.2.8.3) recommends that programs in the pre-Material Solution Analysis (MSA) phase conduct an initial IA&E Assessment to identify potential existing foreign solutions, ICP opportunities, foreign technology, or potential for future foreign sales. For programs in the MSA phase, the DAG recommends that the program's IA&E Assessment address the program's:

- Ability to procure or modify existing U.S. or foreign material solutions as part of the OSD CAPE Analysis of Alternatives prior to starting a new development program
- Potential for international cooperative research, development, production, logistics support, interoperability, and defense exportability
- Existing or projected international agreement(s), JROC-validated coalition interoperability requirements, international markets, and potential program protection issues and requirements

Obtaining Subject Matter Expertise

Depending on the potential scope of the international involvement envisioned, the PMO should consider obtaining subject matter expertise on global technology defense marketplace demands for a new system from the DoD S&T community, TSFD community, intelligence community, DoD Component IPO, U.S. industry, and any other sources required to conduct a comprehensive, high-quality assessment. For MDAPs with the potential for substantial international involvement, AT&L International Cooperation and Defense Security Cooperation Agency (DSCA) staff members can help PMOs identify experts in the above areas with robust knowledge and encourage their participation in the IA&E Assessment.

Scope Considerations

The level of effort for an IA&E Assessment should be based on the complexity of the program and its international acquisition potential. For example, on an ACAT I program with significant international potential, establishing a formal IA&E Assessment effort – including a chartered team and a Plan of Action and Milestones (POA&M) integrated with the MSA phase Analysis of Alternatives (AoA) -- should be considered. A substantial IA&E Assessment for an MDAP may benefit from contractual studies in key areas, including an extensive international defense market analysis, which may be difficult for the government to conduct. On the other hand, for ACAT II or ACAT III programs with limited international potential, a smaller scope effort using DoD Component in-house expertise approach may prove to be adequate.

Updates

A program's IA&E Assessment should be conducted in an iterative manner as the program proceeds through the Defense Acquisition System development phases into the Production and Deployment (P&D) and Operations and Support (O&S) phases. Early on in a program, there will be imperfect information and the assessment team will need to be make key assumptions subject to future validation as the program matures. The program's IA&E Assessment should be updated periodically to support the development and update cycle for the program's Acquisition Strategy International Involvement section and, if applicable, International Business Plan (IBP).

Section 4 – Documentation of Results

PMOs may find the attached ***IA&E Assessment Summary Guide*** helpful as a starting point in determining how to document IA&E Assessment results for their program. Top level IA&E Assessment results should also be incorporated into their program's Acquisition Strategy and International Business Plan (IBP), as appropriate.

Note: If you would like to provide feedback on this JST, have ideas on how the JST could be improved, have questions on this JST, or would like advice on how to use this JST in the workplace, please send an email to InternationalHelp@dau.mil.

Attachment 1
IA&E Assessment Summary Guide

Attachment 1 - International Acquisition and Exportability (IA&E) Summary Guide

1. Interoperability Requirements

a. Key Assumptions: (document key system-specific interoperability-related assumptions)

b. Key Analysis & Evaluation Areas: (document results)

- What allied and friendly nation interoperability requirements have been established by the user community?
- What interfaces must be controlled in derived systems requirements incorporated in program contracts to achieve the desired interoperability?
- Are there applicable U.S.-ratified ISAs that should be included in derived systems requirements (specifications, statements of work, etc.) and incorporated in solicitations and contracts?
- Are trade-off analyses with the user required to determine the extent of interoperability that should be sought in development of the system?
- What are the projected U.S., International Organization (NATO, ABCA, etc.), and allied/friendly nation resource implications, cost estimates, and budgeting efforts, as applicable, to achieve required/desired interoperability outcomes?

2. Program Protection Considerations

a. Key Assumptions: (document key assumptions)

b. Key Analysis & Evaluation Areas: (document results)

- What sensitive information, CPI and/or mission-critical functions and components will likely be included in the system design and documentation efforts?
- What system characteristics and/or configuration items may require DEF development of differential capabilities from the DoD configuration?
- What configuration items may require development of additional anti-tamper measures to allow foreign transfer?
- If a cooperative development or production program is under consideration, which system design, development and production areas are likely to be restricted to U.S.-only development or production efforts. Which areas will likely be available to foreign partners (government or industry) for future program efforts that will be unaffected by projected TSFD and export control boundaries and restrictions?

3. Cooperative Opportunities

a. Key Assumptions: (document key assumptions)

b. Key Analysis & Evaluation Areas: (document results)

- Are there any foreign off-the-shelf systems that might satisfy the requirement (or with modification)?
- Are there allied and/or friendly countries with common or similar operational requirements for a new development or major modification program/system?
- Does any country (or group of countries) have a planned or ongoing acquisition program addressing similar requirements?
- What new technology is needed/desired for the program/system and are there global leaders in these technology areas that could either provide or cooperate with the DoD in maturing these technologies?

4. International Market Assessment

a. Key Assumptions: (document key assumptions)

b. Key Analysis & Evaluation Areas: (document results)

- What are U.S. industry's and/or subject matter experts' views regarding the potential for international cooperation and/or future sales for the system being developed or modified? How reliable do you think they are? Can they be used as a basis for the program's international market analysis?

- Taking into account the answers to the preceding questions, does your program have analytically based ROM estimates of potential international cooperation and/or future sales of the system?
- If yes, are the ROM estimates current or should they be updated? If no ROM estimates exist, how could your program develop ROM estimates for OSD, DoD Component, and PEO/program-level use in initial domestic and international program planning, including defense exportability business case analysis?