"Systems Engineering for Mission Success"

Critical Design Review
Program Risk Assessment Checklist (14 December 2009)

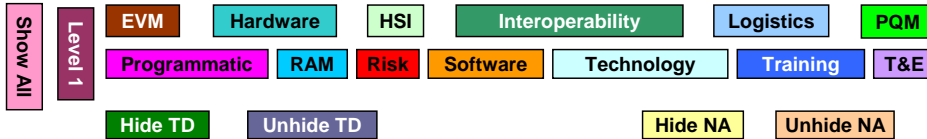| Name of the program being reviewed / date |
| --- |
| |
| **Name / Code / Technical Specialty of reviewer** |
| |

OVERVIEW: Although the checklist can be printed and completed as a "hard copy", it is designed to be completed electronically as an Excel spreadsheet. When viewed electronically, the small number buttons in the upper left corner of the screen are used to select the level of indenture for the questions in the checklist. A left mouse click on a number button will expand or collapse the entire checklist to the desired level. A left click on the "+" symbol in the left margin of the spreadsheet will expand the level of indenture for that section. A left click on the "-" symbol in the left margin of the spreadsheet will collapse the level of indenture for that section. The buttons in Row 11 run specific macros. The buttons in Column A allow a user to designate and sort specific questions as "Special Interest" (i.e., High Priority, Flagged, Question). The colored buttons in Row 11, Column C allow the user to sort questions by Technical Discipline, to provide a Level 1 roll-up of the risk characters assigned, or to hide specific information. For example selecting the "Logistics" button results in the display of all Level 1 Logistics-related questions and assigned information. All other questions will be hidden.

COMPLETING THE CHECKLIST:
1. In the upper right corner of the checklist, enter the name of the program being reviewed, the date(s) of the review, along with the name, code and technical specialty of the person(s) completing the checklist.
2. A "Risk Character" (i.e., R / Y / G / U / NA) should be assigned for each question by direct entry or left clicking in each box to activate the "drop down" menu. To delete a "Risk Character" from a box, click in the box and press the "Delete" button on the keyboard, or right click on the cell and select "clear contents". The assigned Risk Characters will automatically total and display in the Level 1 (and Level 2, as applicable) row(s). Selection of a summary tab (Excel "Sheet") at the bottom of the checklist will provide a summary of all questions assigned a particular risk character (e.g., selecting the RED tab will display all questions assigned a RED risk character).
3. Any question requiring further attention (Special Interest) should be similarly marked in Column A as "High Priority", "Flagged", or "Question" to facilitate follow-up.
4. Narrative, amplifying, and / or mitigation information should be entered in the "Comments Mitigation" box (Column J) at the right of each question.

> **CAUTION:** *Entries, changes or deletions to risk characters or comments should only be made on the expanded checklist page;* **NOT** *on any of* **the summary pages.** *Any entries entered directly on the summary pages will disable linkage within the checklist.*

SAVING THE CHECKLIST: Save the completed checklist in a new file with a unique name such as "UAV CDR 14Dec09ajo".

High Priority **Flagged** **Question**

Show All	Level 1	EVM	Hardware	HSI	Interoperability	Logistics	PQM
		Programmatic	RAM	Risk	Software	Technology	Training	T&E

Hide TD **Unhide TD**   **Hide NA** **Unhide NA**

Risk Character

R = Red, Y = Yellow, G = Green, U = Unknown / Unavailable, NA = Not Applicable

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	training, RAM, hardware, T&E, software, HSI, logistics, risk, technology, programmatic	**1. Timing / Entry Criteria**	0	1	0	0	0	1	
	programmatic	a. Has a Preliminary Design Review (PDR) been successfully completed?						1.a	
	training, RAM, hardware, T&E, software, risk, logistics, HSI, technology, programmatic	b. Readiness for Critical Design Review (CDR)	0	1	0	0	0	1.b	
	hardware, T&E, software, risk, logistics, HSI, technology, programmatic	(1) Is the program ready to conduct a CDR based upon CDR entry criteria vice a pre-determined schedule date?		Y				1.b(1)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	logistics, hardware, programmatic	(2) Have updates to the systems specification and functional specification been completed?						1.b(2)	
	software, logistics, hardware, programmatic	(3) Have product specifications for each hardware and software configuration item, along with supporting trade-off analyses and data been completed?						1.b(3)	
	risk, programmatic	(4) Is a current program risk assessment available?						1.b(4)	
	logistics, technology, programmatic	(5) Was a Systems Engineering Plan (SEP - formerly Systems Engineering Management Plan (SEMP)) been developed and implemented?						1.b(5)	
	logistics, programmatic	(6) Have Cost Analysis Requirements Description (CARD) changes been completed?						1.b(6)	
	HSI, logistics, training, programmatic	(7) Has the Human Systems Integration (HSI) plan or applicable acquisition documentation that contain HSI information, been updated?						1.b(7)	
	logistics, RAM	(8) Has logistics documentation Product Support Plan (PSP), Logistics Requirements and Funding Summary (LRFS), Preliminary Maintenance Plan, etc.) been updated?						1.b(8)	
	software	(9) Is the Software Design Document(s) (EMD) complete and ready to be placed under configuration management?						1.b(9)	
	software	(10) Is the Software Interface Design Document(s) (IDD) complete and ready to be placed under configuration management?						1.b(10)	
	T&E, software, hardware	(11) Are the preliminary test procedures for software integration and systems testing available for review?						1.b(11)	
	technology, programmatic	c. Have all prior technical review Request for Action (RFAs) been properly dispositioned and closed?						1.c	
	logistics, programmatic	d. Have all prior logistics review RFAs been properly dispositioned and closed?						1.d	
	technology, programmatic	e. Is the program using an effective Integrated Digital Environment (IDE) to store data?						1.e	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	T&E, RAM, training, software, HSI, logistics, PQM, technology, risk, programmatic, interoperability	**2. Planning**	0	0	0	0	0	2	
	technology, programmatic	a. Was a chairperson, independent of the program, assigned?						2.a	
	programmatic	b. Did the review agenda address all applicable CDR review elements listed in the SEP?						2.b	
	programmatic	c. Was the technical review board properly staffed, and are the appropriate technical disciplines participating in the review?						2.c	
	logistics, HSI, technology, programmatic	d. Acquisition Strategy	0	0	0	0	0	2.d	
	logistics, technology, programmatic	(1) Was the Acquisition Strategy developed and documented?						2.d(1)	
	HSI, programmatic	(2) Does the Acquisition Strategy address a plan to satisfy HSI requirements for each domain addressed in the Capability Development Document (CDD) / Capability Production Document (CPD), including minimum standards for those domains not specifically addressed in the CDD / CPD?						2.d(2)	
	T&E, programmatic, interoperability	e. Was the necessary System of Systems / Family of Systems (SoS / FoS) testing addressed or planned?						2.e	
	programmatic, interoperability	f. Was Net-Centric Operations and Warfare Baseline updated?						2.f	
	software, programmatic	g. Were the software metrics provided to the program office to manage the software program provided to the software Subject Matter Expert (SME)?						2.g	
	PQM, programmatic, interoperability	h. Net-Ready Key Performance Parameter (NR-KPP)	0	0	0	0	0	2.h	
	programmatic, interoperability	(1) Have the updated system NR-KPP and Information Support Plan (ISP) been certified or approved?						2.h(1)	
	PQM, programmatic, interoperability	(2) Have the updated architecture products (Computer-Aided Design and Manufacturing (CADM) compliant) been delivered?						2.h(2)	
	HSI, training, programmatic, interoperability	i. Have the changes required to doctrine, organization, training, leadership, personnel and facilities (DOT_LPF) as a result of the fielding of this system been appropriately addressed in order to advance joint warfighting capabilities?						2.i	
	T&E, training, logistics, HSI, programmatic, interoperability	j. Test and Evaluation (T&E) Planning	0	0	0	0	0	2.j	

Special Interest	Technical Discipline	Legend: R Y G U NA	Item	Comments / Mitigation
	T&E, programmatic	(1) Are key Government / contractor interfaces identified for the T&E program? Does planning reflect Integrated Test Team (ITT) organization and testing (contractor / Developmental Test (DT) / Operational Test (OT))?	2.j(1)	
	T&E, logistics, programmatic	(2) Is adequate staffing (required expertise and quantity of expertise for both the contractor and the Government) available to execute the test schedule?	2.j(2)	
	T&E, training, logistics, HSI, programmatic, interoperability	(3) Test Planning	2.j(3)	
	T&E, logistics, programmatic	(a) Has the Test and Evaluation Master Plan (TEMP) been updated to reflect the required detail for the CDR timeframe? Does Section V of the TEMP address all required resources?	2.j(3)(a)	
	T&E, programmatic	(b) Have developmental test plans been formulated in accordance with the TEMP?	2.j(3)(b)	
	T&E, programmatic	(c) Does the T&E Strategy meet the TEMP requirements?	2.j(3)(c)	
	T&E, programmatic	(d) Has detailed test planning been initiated? Are test plans for the first six months of test flights in a draft status?	2.j(3)(d)	
	T&E, programmatic	(e) Are test requirements tied to verification requirements? Is there a method to ensure traceability of test requirements to the verification requirements?	2.j(3)(e)	
	T&E, programmatic, interoperability	(f) Does TEMP reflect Net-Centric Operations and Warfare requirements?	2.j(3)(f)	
	T&E, HSI, training, programmatic	(g) Does TEMP address objectives and metrics to ensure that human effectiveness will be assessed to consider human factors, training, survivability and habitability?	2.j(3)(g)	
	T&E, programmatic	(4) Is there a plan for a deficiency documentation and tracking system?	2.j(4)	
	T&E, programmatic	(5) Is the flight clearance process established to include definitions of the levels of clearance authority?	2.j(5)	
	T&E, programmatic	(6) Have metrics been established to track the test program?	2.j(6)	
	T&E, programmatic, interoperability	(7) How will the test processes, as detailed in the TEMP and the contractor's overarching T&E strategy, address the end-to-end testing of SoS / FoS distributed services? Have all certification test requirements been identified?	2.j(7)	
	T&E, logistics, programmatic	(8) Have facilities / test resources (contractor and Government) been defined and included in the planning?	2.j(8)	

Special Interest	Technical Discipline		R	Y	G	U	NA	Item	Comments / Mitigation
	T&E, programmatic	(9) Is there user "buy-in" to the above test planning? Are there provisions for user participation?						2.j(9)	
	T&E, programmatic	(10) Has OT been involved with all aspects of test planning? Are OT requirements considered as a part of DT planning?						2.j(10)	
	T&E, training, logistics, HSI, programmatic	(11) Are training requirements documented for Development Test & Evaluation (DT&E) and Operational Test & Evaluation (OT&E)?						2.j(11)	
	T&E, programmatic	(12) Are system engineering requirements for the T&E program understood? Is testing for unique system engineering included in the test plans?						2.j(12)	
	T&E, programmatic	(13) Will Government and contractor T&E facilities be available to meet the schedule?						2.j(13)	
	PQM, risk, RAM, T&E, programmatic	k. Quality Planning	0	0	0	0	0	2.k	
	PQM, risk, programmatic	(1) Is the quality management system finalized and documented?						2.k(1)	
	PQM, risk, programmatic	(2) Are program plan updates required?						2.k(2)	
	PQM, risk, T&E, programmatic	(3) Are gages and other measuring and test devices necessary to assure performance to technical requirements available or scheduled to be available when needed?						2.k(3)	
	PQM, risk, programmatic	(4) Has the lead free control plan been updated?						2.k(4)	
	PQM, risk, T&E, programmatic	(5) Have qualification testing plans to support program requirements been updated?						2.k(5)	
	PQM, risk, programmatic	(6) What system is used for the collecting and tracking of the cost related to quality and are these data available for Government review?						2.k(6)	
	PQM, risk, RAM, programmatic	(7) Is a Foreign Object Damage (FOD) prevention program in place?						2.k(7)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	hardware, software, T&E, logistics, risk, programmatic, interoperability	**3. Program schedule**	0	0	0	0	0	3	
	software, hardware, logistics, risk, programmatic	a. Updated program schedule with linked tasks.	0	0	0	0	0	3.a	
	software, logistics, risk, programmatic	(1) Does the program have an updated schedule with sufficient detail to support development, and are the tasks linked?						3.a(1)	
	software, hardware, programmatic	(2) Is the software schedule consistent with the detailed design, or has the schedule been revised?						3.a(2)	
	software	(3) Has the software schedule been updated based upon actual measured project software development performance and productivity to date?						3.a(3)	
	software, hardware	(4) Has the software schedule changed since the beginning of the project?						3.a(4)	
	hardware, software	(5) What were the causes of these changes?						3.a(5)	
	hardware, software	(6) What mitigating action has been taken to prevent their occurrence in the future?						3.a(6)	
	risk, programmatic	(7) Were any problems that caused schedule slips identified as risks prior to their occurrence? If not why not? If yes, why didn't the associated mitigation plan succeed?						3.a(7)	
	programmatic	(8) Is allowance made in the schedule for upgrades of Commercial-Off-The-Shelf (COTS) and Government Off-The-Shelf (GOTS) equipment due to obsolescence?						3.a(8)	
	programmatic	b. Is the schedule built upon "bottom-up" task planning?						3.b	
	programmatic	c. Is the schedule reflective of available resources?						3.c	
	software, hardware, risk, programmatic	d. Critical Path	0	0	0	0	0	3.d	
	hardware, risk, programmatic	(1) Does the program schedule have an identified critical path and is that critical path consistent with overall technical risk?						3.d(1)	
	software, risk, programmatic	(2) What are the components of the software on the project's critical path?						3.d(2)	
	software, risk, programmatic	(3) If software is not currently on the project critical path, how much must the software development slip before it is on the critical path?						3.d(3)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	software, hardware, risk, programmatic	(4) Are there any hardware (COTS, GOTS or project specific) deliverables on the software development critical path?						3.d(4)	
	software, risk, programmatic	(5) Are there any software deliverables from outside sources (COTS, GOTS) on the software development critical path?						3.d(5)	
	software, risk, programmatic	e. What is the program status versus critical path?						3.e	
	hardware, software, risk, programmatic, interoperability	f. Does this program schedule show FoS / SoS impacts (systems on the critical path for the program) for delivery of a capability?						3.f	
	T&E, risk, programmatic	g. Test and Evaluation (T&E) Schedule	0	0	0	0	0	3.g	
	T&E, programmatic	(1) Does the T&E program have a detailed test schedule?						3.g(1)	
	T&E, programmatic	(2) Are test interdependencies well understood?						3.g(2)	
	T&E, programmatic	(3) Is the current (flight) test schedule built upon actual test point requirements and realistic completion rates?						3.g(3)	
	T&E, risk, programmatic	(4) Is the current T&E schedule executable with respect to timeframe and required resources (manpower, ranges, facilities)?						3.g(4)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	HSI, PQM, hardware, RAM, software, EVM, logistics, T&E, technology, risk, programmatic, interoperability	**4. Management metrics relevant to life cycle phase**	0	0	0	0	0	4	
	logistics, risk, technology, programmatic	a. Cost / Schedule / Performance / Key Performance Parameters (KPP)	0	0	0	0	0	4.a	
	logistics, risk, technology, programmatic	(1) Is the latest revised estimate of each KPP in accordance with the Acquisition Program Baseline?						4.a(1)	
	logistics, risk, technology, programmatic	(2) Are the KPPs reflective of program risks and technical results?						4.a(2)	
	logistics, hardware, software, risk, technology, programmatic	b. Latest cost estimate	0	0	0	0	0	4.b	
	logistics, hardware, risk, technology, programmatic	(1) Is the cost estimate consistent with the technical risk of the program, the critical path plan and available resources?						4.b(1)	
	software, risk, programmatic	(2) Is the software cost consistent with the detailed design, or has it been revised?						4.b(2)	
	software, programmatic	(3) Has the software estimate been updated based upon actual measured project software development performance and productivity to date?						4.b(3)	
	software, hardware, logistics, programmatic	(4) Has cost of acquiring, licensing and configuring COTS and / or GOTS computer hardware and software been considered?						4.b(4)	
	software, risk, programmatic	(5) What caused a change in the software cost since the beginning of the project, if any?						4.b(5)	
	software, risk, programmatic	(6) What mitigating action has been taken to prevent future occurrences?						4.b(6)	
	T&E, EVM, programmatic	c. Test and Evaluation (T&E) - Cost	0	0	0	0	0	4.c	
	T&E, programmatic	(1) Based on latest cost estimate, is the T&E program adequately funded?						4.c(1)	
	T&E, programmatic	(2) Can T&E costs be tracked to specific capabilities?						4.c(2)	
	T&E, EVM, programmatic	(3) Have metrics been established to track performance and earned value?						4.c(3)	
	logistics, PQM, programmatic	d. Estimate of Production Costs	0	0	0	0	0	4.d	
	logistics, PQM, programmatic	(1) Is the estimate for production costs consistent with the detailed design as disclosed?						4.d(1)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	logistics, PQM, programmatic	(2) Are all elements of production cost addressed?						4.d(2)	
	software, hardware, logistics, programmatic	e. Estimate of Operations and Support (O&S) Costs	0	0	0	0	0	4.e	
	software, logistics, programmatic	(1) Is the estimate for O&S costs consistent with the detailed design as disclosed?						4.e(1)	
	software, logistics, programmatic	(2) Are all elements of O&S cost addressed?						4.e(2)	
	software, hardware, logistics, programmatic	(2) Have COTS and / or GOTS computer hardware and software obsolescence and upgrade impacts been considered as part of the estimate?						4.e(3)	
	logistics, programmatic	f. Are logistics metrics identified in the Acquisition Program Baseline?						4.f	
	logistics, programmatic	g. Have supportability analysis products from the system integration work effort been made available to the cognizant CDR participants prior to the review?						4.g	
	logistics, RAM, programmatic	h. Are the current logistics documents available for review (PSP, LRFS, Preliminary Maintenance Plan)?						4.h	
	hardware, EVM, technology, risk, programmatic	i. Earned Value Management (EVM)	0	0	0	0	0	4.i	
	EVM, programmatic	(1) Are the EVM data up-to-date?						4.i(1)	
	EVM, programmatic	(2) Is the EVM baseline being used as a program execution tool (i.e. by management and at the working level)?						4.i(2)	
	EVM, programmatic	(3) Are the work packages based on earned value vice level of effort?						4.i(3)	
	hardware, EVM, technology, risk, programmatic	(4) Is the EVM data consistent with known technical risks and challenges in the program?						4.i(4)	
	risk, EVM, hardware, programmatic	(5) Is the EVM data being used to adjust program resources to address risk issues?						4.i(5)	
	EVM, programmatic	(6) Have the metrics to track EVM been clearly articulated with sufficient fidelity to understand the status of the product development?						4.i(6)	
	logistics, hardware, risk, software, HSI, technology, programmatic	j. Work Breakdown Structure (WBS) review	0	0	0	0	0	4.j	
	hardware, risk, software, HSI, programmatic	(1) Is the WBS consistent with the technical risks of the program?						4.j(1)	

Special Interest	Technical Discipline	Legend: R Y G U NA	R	Y	G	U	NA	Item	Comments / Mitigation
	hardware, risk, logistics, HSI, technology, programmatic	(2) Is the WBS broken down to an appropriately detailed level to address all technical tasks?						4.j(2)	
	software, hardware, logistics, programmatic	(3) Are all Configuration Items (CIs) (including software), as identified in the detailed design, addressed in the WBS?						4.j(3)	
	logistics, programmatic	(4) Are the requirements tracked, traced, and modeled using an automated tool?						4.j(4)	
	EVM, risk, software, T&E, programmatic	k. Software metrics	0	0	0	0	0	4.k	
	software, programmatic	(1) Has a software metrics program been implemented by both the developer and the Government acquisition office?						4.k(1)	
	software, programmatic	(2) Are adequate software metrics in place and being used to manage the software effort?						4.k(2)	
	risk, software, programmatic	(3) Do the metrics indicate status versus plan?						4.k(3)	
	risk, software, programmatic	(4) What level of risk does the metrics indicate?						4.k(4)	
	risk, software, programmatic	(5) Is the software staffing adequate for the magnitude / complexity of the software and the level of software risk?						4.k(5)	
	software, programmatic	(6) Have the cost and schedule estimates been updated based on any changes in software size due to updates from detailed design completion?						4.k(6)	
	software, programmatic	(7) Are computer resource utilization metrics or Technical Performance Measures (TPM) known and allocated to individual processors' Input / Output (IO), Random-Access Memory, Read-Only Memory (ROM) and other storage media?						4.k(7)	
	software, programmatic	(8) Is there sufficient reserve and have resource utilization requirements for each component been met?						4.k(8)	
	risk, software, programmatic	(9) Are metrics used to track and manage the software requirements changes, deletions and additions (software requirements volatility), and is the level acceptable?						4.k(9)	
	risk, software, programmatic	**Note:** If the total system or software requirements change rate (additions / modifications / deletions) is greater than 2% per month since the end of software requirements analysis phase or the System Functional Review (SFR) for software, possible requirements management problems with likely cost and schedule impacts are indicated.							

Special Interest	Technical Discipline	Legend: R Y G U NA	Item	Comments / Mitigation

Special Interest	Technical Discipline	Question	R	Y	G	U	NA	Item	Comments / Mitigation
	hardware, T&E, software, EVM, programmatic	(10) Are there metrics and traceability in place to verify all of the system and software requirements have been implemented in the detailed design, and will be coded and tested in subsequent phases?						4.k(10)	
	hardware, software, EVM, programmatic	**Note:** If EVM is identified as the metric for managing and ensuring that software requirements are being implemented in accordance with the project cost and schedule plan, allocation of earned value must be tied directly to the correct implementation of software requirements.							
	software, EVM, programmatic	(11) Are metrics used to insure that quality is designed and built into the software rather than attempting to test it in?						4.k(11)	
	software, EVM, programmatic	(12) What metrics have been used to track quality during the software requirements and software design phase?						4.k(12)	
	EVM, T&E, software, programmatic	(13) What quality metrics will be used during the coding and test phases?						4.k(13)	
	EVM, risk, software, programmatic	(14) Are appropriate metrics in place to allow the tracking, management, and mitigation of significant software risks?						4.k(14)	
	software, EVM, programmatic	(15) For ACAT IA, IC, ID with a software development effort exceeding $25M (FY02 dollars), have Software Resource Data Reports (SRDR) been submitted in accordance with Department of Defense (DoD) Instruction 5000.2 dated 12 May 03 and DoD 5000.4-M-2?						4.k(15)	
	HSI, RAM, logistics, T&E, technology, programmatic, interoperability	I. Engineering and Manufacturing Development (EMD) Phase	0	0	0	0	0	4.l	
	HSI, RAM, logistics, T&E, technology, programmatic, interoperability	(1) Key logistics criteria during EMD						4.l(1)	
	logistics, RAM, programmatic	(a) Does the program comply with the collection, analysis, and evaluation of system performance and maintenance performance data to determine the need for and prescribe changes to the system configuration, maintenance support structure, and maintenance resource requirements? Utilization of on-board (embedded) monitoring sensors, diagnostics, and prognostics are integral to this process.						4.l(1)(a)	
	logistics, programmatic	(b) Does the iterative refinement of logistics support considerations correspond with the evolutionary acquisition strategy (when employed)?						4.l(1)(b)	
	logistics, programmatic, interoperability	(c) Have Product Support Integrator (PSI), potential support providers (public and private), and potential partnering opportunities been identified?						4.l(1)(c)	

Special Interest	Technical Discipline	Legend: R Y G U NA						Item	Comments / Mitigation
	HSI, logistics	(d) Has an assessment been made of the depot-level maintenance core capability and have workloads required to sustain those capabilities been identified?						4.l(1)(d)	
	logistics, programmatic	(e) Has the development of Performance Based Logistics (PBL) Business Case Analysis (BCA) been developed to determine the relative cost versus benefits of different support strategies?						4.l(1)(e)	
	logistics, programmatic	(f) Has the development of PBL BCA been developed to determine the impact and value of performance, cost, schedule, sustainment trade-offs?						4.l(1)(f)	
	logistics, programmatic	(g) Has the development of PBL BCA been developed to determine data required to support and justify the PBL strategy?						4.l(1)(g)	
	logistics, programmatic	(h) Has the development of PBL BCA been developed to determine the PSI performance outcomes and requirements, e.g. mission readiness, logistics footprint, response times, etc?						4.l(1)(h)	
	logistics, RAM, programmatic	(i) Has an auditable depot-level maintenance core capability and workload assessment been completed? (to be completed bi-annually)						4.l(1)(i)	
	HSI, RAM, logistics, programmatic	(j) As required by statute, has an annual determination of the distribution of maintenance workloads been completed?						4.l(1)(j)	
	logistics	(k) Are there updated logistics criteria and parameters with the Acquisition Program Baseline (APB)?						4.l(1)(k)	
	logistics, programmatic	(l) Has it been demonstrated that the system is affordable throughout the life cycle, optimally funded, and properly phased for rapid acquisition?						4.l(1)(l)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	HSI, PQM, logistics, T&E, technology, risk, programmatic	**5. Program Staffing**	0	0	0	0	0	5	
	technology, risk, logistics, HSI, programmatic	a. Is there a complete organizational structure shown, and is it consistent with the technical challenges and risks of the program?						5.a	
	risk, HSI, logistics, programmatic	b. Are key Government / contractor interfaces identified and are these consistent with program risks?						5.b	
	HSI, T&E, logistics, programmatic	c. Is there confidence that all required flight clearance performance monitors are involved, and do they concur with the detailed design?						5.c	
	PQM, risk, HSI	d. Quality Staffing	0	0	0	0	0	5.d	
	PQM, risk, HSI	(1) Have their been any changes to the authority or reporting chain of quality personnel?						5.d(1)	
	PQM, risk, HSI	(2) Do quality staffing plans address the initial production program and the build up to full rate production?						5.d(2)	
	PQM, risk	(3) Have the responsibilities for quality efforts been updated?						5.d(3)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	training, RAM, hardware, HSI, PQM, software, T&E, logistics, technology, risk, programmatic, interoperability	**6. Process Review**	**0**	**0**	**0**	**0**	**0**	6	
	PQM, T&E, hardware, risk, technology, programmatic	a. Program management processes as detailed in the Program Management Plan	0	0	0	0	0	6.a	
	PQM, T&E, hardware, risk, technology, programmatic	(1) Are the program management processes that are in place adequate to address the technical challenges of the program and program risks?						6.a(1)	
	technology, risk, programmatic	(2) Is there an updated Program Management Plan that is reflective of the emergent technical issues and risks?						6.a(2)	
	PQM, T&E, technology, programmatic	(3) Are there program management processes in place to properly manage the detailed design, prototype fabrication, testing, and attendant technical emphasis areas?						6.a(3)	
	PQM, T&E, hardware, technology, programmatic	(4) Is the program being managed to adjust resources to address issues in the detailed design, prototype fabrication and testing?						6.a(4)	
	logistics, hardware, software, PQM, technology, programmatic, interoperability	b. Configuration Management (CM) Plan	0	0	0	0	0	6.b	
	logistics, programmatic	(1) Is the CM plan in place and up-to-date?						6.b(1)	
	logistics	(2) Are CM decisions based on factors that best support implementation of performance-based strategies throughout the product life cycle?						6.b(2)	
	hardware, logistics, programmatic	(3) Is the detailed design (each CI) documented and being managed in accordance with the CM Plan?						6.b(3)	
	logistics, hardware, software, programmatic	(4) Are requirements for the configuration identification, control, status accounting, deviations, engineering changes, and verification / audit functions established for hardware, software, and product and technical data?						6.b(4)	
	hardware, logistics, programmatic	(5) Have the appropriate milestones for the functional, allocated, and product baselines been established and approved from development through disposal?						6.b(5)	
	logistics, hardware	(6) Has nomenclature been established where appropriate?						6.b(6)	
	logistics, hardware, programmatic, interoperability	(7) Are interfaces defined using interface control documents (as applicable)?						6.b(7)	

Special Interest	Technical Discipline	Legend: R Y G U NA	Item	Comments / Mitigation
	logistics, software, hardware, programmatic	(8) Have hardware and software requirements, product and technical data specifications, and interface requirements specification been prepared and approved?	6.b(8)	
	logistics, hardware, programmatic	(9) Are physical and functional characteristics accurately reflected in design documentation?	6.b(9)	
	logistics, software, hardware	(10) Has each computer software configuration item, along with its corresponding computer software components and computer software units, been identified?	6.b(10)	
	logistics, software	(11) Has a software design document been written for each computer software configuration item?	6.b(11)	
	logistics, software, hardware	(12) Are the version, release, change status, media, and other identification details of each software deliverable known?	6.b(12)	
	logistics, software	(13) Will the software be installed along with its serial number?	6.b(13)	
	logistics, programmatic	(14) Has the COTS / Non-Developmental Item (NDI) form, fit, and function information been required and provided for refresh?	6.b(14)	
	logistics	(15) Are subcontractor CM requirements (including information, data and metrics) established?	6.b(15)	
	logistics	(16) Are CM processes and procedures (including change initiation, evaluation, and disposition) established?	6.b(16)	
	logistics, PQM, technology	(17) Is an engineering release system utilized to control change, manufacturing, and acceptance processes?	6.b(17)	
	logistics, programmatic	(18) Is a configuration control board established that includes logistics representation?	6.b(18)	
	logistics, hardware, programmatic	(19) Is the configuration status accounting information maintained in a CM database? (may include such information as the as-designed, as-built, as-delivered or as-modified configuration of the product as well as of any replaceable components within the product along with the associated product and technical data.)	6.b(19)	
	logistics, hardware, programmatic	(20) Has traceability of requirements from the top-level documentation through all subordinate levels been documented?	6.b(20)	
	logistics, programmatic	(21) Who manages the configuration database?	6.b(21)	
	logistics, programmatic	(22) Is the CM plan current?	6.b(22)	
	logistics, programmatic	(23) What are the impacts and workarounds of multiple configurations?	6.b(23)	

Special Interest	Technical Discipline	Question	R	Y	G	U	NA	Item	Comments / Mitigation
	hardware, programmatic	(24) Are changes to the managed CI configurations controlled and tracked to higher level (System Specification and CDD / CPD), and lower level (detailed design) documents?						6.b(24)	
	hardware, logistics, T&E, technology, HSI, programmatic, interoperability	c. Systems Engineering (SE) processes as detailed in the SEP	0	0	0	0	0	6.c	
	logistics, HSI, technology, programmatic	(1) Is there a defined SE process?						6.c(1)	
	logistics, HSI, technology, programmatic	(2) Are the processes shared by the Government and contractor team?						6.c(2)	
	logistics, HSI, technology, programmatic	(3) Are the SE processes for design development and system trades in place and being used?						6.c(3)	
	logistics, technology, programmatic	(4) Are the planned technical reviews in place and properly placed (event driven vice schedule driven)?						6.c(4)	
	logistics, hardware, technology, programmatic	(5) Are the SE processes adequate to support the technical requirements of the technical reviews?						6.c(5)	
	logistics, hardware, technology, programmatic	(6) Are the technical teams working against a defined technical baseline?						6.c(6)	
	logistics, technology, programmatic	(7) Is the program using a SE automated tool (i.e. DOORS, CORE, SLATE etc.) to manage traceability of each CI?						6.c(7)	
	T&E, logistics, programmatic, interoperability	(8) Do the program test processes, as detailed in the TEMP and the contractor's overarching T&E Strategy, appropriately address the end-to-end testing of SoS / FoS distributed services?						6.c(8)	
	T&E, logistics, programmatic	(9) Have all certification test requirements been identified?						6.c(9)	
	logistics, hardware, T&E, technology, programmatic, interoperability	d. Acquisition Logistics Support Management and Staffing	0	0	0	0	0	6.d	
	T&E, logistics, programmatic	(1) Are logistics parameters and tests included in the TEMP?						6.d(1)	
	T&E, logistics, programmatic, interoperability	(2) Are Initial Operational Capability (IOC) / Full Operational Capability (FOC) dates established and defined?						6.d(2)	

Special Interest	Technical Discipline	Legend: R Y G U NA	R	Y	G	U	NA	Item	Comments / Mitigation
	logistics, technology, programmatic	(3) Are trade studies conducted on a continuous basis to ensure that performance and supportability goals are met?						6.d(3)	
	logistics, hardware, technology, programmatic	(4) With specific consideration of performance requirements, do trade studies consider alternate operating and support concepts?						6.d(4)	
	logistics, technology, programmatic, interoperability	(5) Is logistics support included as a part of the life cycle system engineering approach to supportability, including information interoperability requirements?						6.d(5)	
	risk, PQM, logistics, programmatic	e. Risk Management processes as detailed in the Risk Management Plan	0	0	0	0	0	6.e	
	risk, logistics, programmatic	(1) Is there a defined risk management process?						6.e(1)	
	risk, logistics, programmatic	(2) Is the Risk Management Plan up to date and being used?						6.e(2)	
	risk, PQM, programmatic	(3) Is the risk management process shared by the Government and contractor team?						6.e(3)	
	risk, programmatic	(4) Does the risk management process properly track all risks on a continuous basis and provide for update of the mitigation approaches?						6.e(4)	
	risk, programmatic	(5) Are mitigation approaches in place for all "yellow" and "red" risks and are risk mitigations resourced?						6.e(5)	
	risk, logistics, programmatic	(6) Does the risk management process provide for risk updates to support the technical reviews and program management (acquisition) reviews?						6.e(6)	
	risk, programmatic	(7) Is the system's safety risk mitigation plan being managed by the program Risk Management Board?						6.e(7)	
	risk, programmatic	(8) How are risks associated with FoS / SoS requirements being mitigated using the risk mitigation process to include risks external to the program?						6.e(8)	
	logistics, risk, programmatic	f. Logistics Budgeting and Funding	0	0	0	0	0	6.f	
	logistics, risk, programmatic	(1) Has the program office prepared a LRFS or equivalent document?						6.f(1)	
	logistics, programmatic	(a) Has an LRFS or similar type document been established and kept updated?						6.f(1)(a)	
	logistics, programmatic	(b) Is there adequate documentation to support the requirements identified in the LRFS?						6.f(1)(b)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	risk, logistics, programmatic	(c) Are logistics funding requirements developed using Cost As an Independent Variable (CAIV), accepted cost estimating methods, and risk management principles?						6.f(1)(c)	
	logistics, programmatic	(d) Have life cycle cost estimates, including cost reduction efforts, been developed and validated to optimize total ownership of costs and schedules, including end of life?						6.f(1)(d)	
	logistics, programmatic	(e) Does the LRFS support the budgetary requirements of the logistics support plan?						6.f(1)(e)	
	logistics, programmatic	(f) Do the funding requirements in the LRFS coincide with the support requirements in the PSP and other planning documents?						6.f(1)(f)	
	logistics, HSI, programmatic	(2) Has the LRFS been staffed and approved?						6.f(2)	
	logistics, programmatic	(a) Are funding requirements appropriately time-phased?						6.f(2)(a)	
	logistics, programmatic	(b) Are funding requirements identified in the Acquisition Program Baseline?						6.f(2)(b)	
	logistics, HSI	(c) Are program logistics management personnel conversant with methodologies used to develop cost estimates?						6.f(2)(c)	
	T&E, logistics	g. Test processes as detailed in the TEMP and the contractor's overarching T&E Strategy. **See Sections 2.j(7) through 2.j(13)**						6.g	
	logistics, hardware, PQM, technology, risk, programmatic	h. Production processes (ISO 9000, etc.)	0	0	0	0	0	6.h	
	PQM, hardware, programmatic	(1) Have production processes been considered in the detailed design?						6.h(1)	
	PQM, risk, hardware, programmatic	(2) Have production requirements been properly captured and addressed in the risk assessment?						6.h(2)	
	PQM, hardware, programmatic	(3) Have long-lead items been identified and are production processes sufficiently mature for this phase of the program?						6.h(3)	
	PQM, hardware, logistics, technology, programmatic	(4) Where applicable, have Unique Identification (UID) requirements been incorporated? (e.g., MIL-STD-130)						6.h(4)	
	PQM, risk, hardware, technology	(5) Have the requirements of ISO 9001 regarding Product Realization been recognized by the contractor and are they being complied with?						6.h(5)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	training, hardware, logistics, RAM, technology, programmatic, interoperability	i. Automated Information Technology (AIT)	0	0	0	0	0	6.i	
	training, logistics, RAM, technology, programmatic	(1) Radio Frequency Identification (RFID)						6.i(1)	
	logistics, programmatic	(a) Does the program manager have an implementation plan and strategy for storage and shipment with regard to RFID on equipment containers? (Applies to new and mature acquisition programs, N/A for sundown programs.)						6.i(1)(a)	
	logistics, programmatic	(b) Have an analysis and site survey(s) (if applicable) been conducted to determine the level of effort, period of implementation, and cost of RFID implementation?						6.i(1)(b)	
	logistics, programmatic	(c) Has the appropriate amount of funding required to implement RFID implementation been identified, budgeted, allocated, and added to the LRFS?						6.i(1)(c)	
	logistics, programmatic	(d) Do the applicable industrial partners have a plan for RFID implementation?						6.i(1)(d)	
	logistics, training, RAM	(e) Have publications, drawings, maintenance plans, training regimens, etc. been updated as appropriate?						6.i(1)(e)	
	training, logistics, hardware, RAM, technology, programmatic, interoperability	(2) Unique Identification (UID)						6.i(2)	
	logistics, hardware, technology, programmatic	(a) Does the program manager have an implementation plan and strategy developed with regard to defining the specified format for UID parts marking and labeling as prescribed by the applicable Defense Federal Acquisition Regulation Supplement (DFARS) clause?						6.i(2)(a)	
	logistics, hardware, programmatic	(b) Has a UID implementation plan been drafted as per Office of the Secretary of Defense (OSD) policy and has it been submitted, approved, and updated?						6.i(2)(b)	
	logistics, programmatic, interoperability	(c) Does the plan comply with applicable OSD guidance with regard to whether or not UID is being applied to items equal to or greater than $5,000, serially managed, mission essential, controlled inventory, or requiring permanent identification?						6.i(2)(c)	
	logistics, programmatic	(d) Has an analysis been conducted to ascertain the level of effort required, period of implementation, and cost of UID implementation?						6.i(2)(d)	

Special Interest	Technical Discipline	Legend: R Y G U NA						Item	Comments / Mitigation
	logistics, programmatic	(e) Has the appropriate amount of funding required to implement UID (on applicable components and items) been identified, budgeted, allocated, and added to the LRFS?						6.i.(2)(e)	
	logistics, programmatic	(f) Do the applicable industrial partners have a plan for UID implementation?						6.i.(2)(f)	
	logistics, training RAM, technology	(g) Have publications, drawings, maintenance plans, and training regimens been updated for UID?						6.i.(2)(g)	
	risk, programmatic	j. Have the lessons learned by other programs been utilized to reduce risk?						6.j	
	training, RAM, software, HSI, hardware, risk, logistics, T&E, technology, programmatic, interoperability	k. Software	0	0	0	0	0	6.k	
	software, risk	(1) Is the software development lifecycle appropriate to the development?						6.k(1)	
	software, risk	(2) Does the software lifecycle being used contribute to reducing overall software development risk?						6.k(2)	
	training, software, T&E, programmatic	(3) Are software requirements allocated to COTS, GOTS and reused software appropriately?						6.k(3)	
	software	(a) Does the COTS, GOTS and / or reused software's implementation meet the software requirements allocated to it?						6.k(3)(a)	
	software, training	(b) Is the development team familiar with or trained in the use of the COTS, GOTS or reused software? If not, is documentation readily available? Is training readily available and has it been scheduled and budgeted for?						6.k(3)(b)	
	software, T&E, programmatic	(c) Is the COTS, GOTS or reused software fully tested and reliable? If not, have adequate schedule and resources been included to test and rework it? If not, why is it being used?						6.k(3)(c)	
	software, hardware, risk, programmatic	(4) If COTS or GOTS computer hardware and / or software is being used, have COTS and / or GOTS obsolescence issues been considered?						6.k(4)	
	software, risk, programmatic	(a) Has the long term viability of the COTS and / or GOTS product provider been considered for the program life cycle?						6.k(4)(a)	
	software, hardware, technology, programmatic	(b) Has the likely impact of updating a component of COTS and / or GOTS computer hardware or software been considered in respect to how it may force other COTS and / or GOTS upgrades?						6.k(4)(b)	

Special Interest	Technical Discipline	Legend: R Y G U NA	Item	Comments / Mitigation
	software, hardware, risk, programmatic	(c) Has the impact on the project's custom software of COTS and / or GOTS computer hardware or software upgrades been considered?	6.k(4)(c)	
	software, hardware, risk, programmatic	(d) Are the impacts of COTS and / or GOTS software and computer hardware obsolescence and upgrades on the software development and integration environment considered?	6.k(4)(d)	
	logistics, hardware, HSI, software, T&E, programmatic, interoperability	(5) Are facilities and resources available or in development to support software integration testing, formal qualification testing, systems testing, SoS / FoS testing, DT, and OT?	6.k(5)	
	logistics, hardware, HSI, software, T&E, programmatic	(a) Have adequate hardware, software, personnel, and spares been allocated to both laboratory, ground and flight testing to achieve the program schedule?	6.k(5)(a)	
	logistics, hardware, software, T&E	(b) Does the program place an excessive and/or unreasonable emphasis on ground, flight, or laboratory testing?	6.k(5)(b)	
	logistics, hardware, software, T&E	(c) Is the appropriate and most cost effective means of testing utilized for different testing phases?	6.k(5)(c)	
	logistics, hardware, software, T&E	(d) If the systems and software integration laboratory resources are planned to be used for spares for flight or ground testing, has the impact on the testing schedule of the laboratory(s) being unavailable been considered?	6.k(5)(d)	
	logistics, hardware, risk, software, T&E, programmatic	(e) Are there any test environment resource limitations that may result in a bottleneck or chokepoint in testing?	6.k(5)(e)	
	logistics, hardware, risk, software, T&E	(f) What actions have been taken to mitigate these bottlenecks or chokepoints?	6.k(5)(f)	
	logistics, hardware, software, T&E, programmatic, interoperability	(g) Is the test environment representative of the operational environment?	6.k(5)(g)	
	logistics, hardware, software, T&E	(h) Are adequate resources and schedule provided for the development and or modification of any special purpose test, simulation and data analysis software for use during the software development provided?	6.k(5)(h)	
	software, risk, programmatic	(6) Is the software developer performing at a Software-Capability Maturity Model (SW-CMM) or Capability Maturity Model Integration (CMMI) level III?	6.k(6)	
	software, risk	(a) What risk mitigation action is being taken to reduce the increased risk of cost, schedule and quality deficiencies, if the software developer is performing below SW-CMM or CMMI Level III?	6.k(6)(a)	

Special Interest	Technical Discipline	Legend: R Y G U NA	Item	Comments / Mitigation
	software, risk, programmatic	(b) What corrective action is being taken, if the software developer is performing below the SW-CMM or CMMI Level they proposed during source selection?	6.k(6)(b)	
	software, RAM, programmatic	(7) What software data rights have been procured by the Government and are they consistent with the Government's plans for maintenance and upgrade of the software over its life cycle?	6.k(7)	
	software, RAM, programmatic	Note: The DFARs clauses for Data Rights are 252-227-7013 / 7014 / 7015. In some contracts the FAR clauses 52-227-7013 / 7014 / 7015 may have been used. If there is any doubt about what level of data rights have been procured or if data rights procured are consistent with the life cycle support plans for the product, it is essential that a patent attorney become involved in order to clarify the situation. The different types of data rights covered in the DFARS are: Unlimited, Government Purpose and Limited.		
	software, RAM, programmatic	(8) Is physical security, Information Assurance (IA), and software security implementation consistent with the security level of the software and any data or crypto stored and managed by the software both during development and during operational use?	6.k(8)	
	software, programmatic	(9) Are peer reviews of the software requirements and software detailed design part of exit criteria for determining if they are complete and for placing them under configuration control?	6.k(9)	
	software, T&E, programmatic	(10) Have software quality criteria for entrance into OT been identified?	6.k(10)	
	software, programmatic, interoperability	(11) Does the software detailed design and project plan provide for the implementation of any DoD software architecture requirements and or standards such as DII COE, JTA, STANAG 4404 Safety Design Requirements and Guidelines for Munition Related Safety Critical Computing Systems, STANAG 4586 Standard Interfaces of UAV Control System (UCS) for NATO UAV Interoperability, etc.?	6.k(11)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	training, RAM, hardware, risk, software, T&E, PQM, logistics, HSI, technology, programmatic, interoperability	**7. Product Support**	**0**	**0**	**0**	**0**	**0**	7	
	HSI, T&E, logistics, RAM, technology, programmatic, interoperability	a. Product Support Manager life cycle Logistics	0	0	0	0	0	7.a	
	logistics, RAM, programmatic, interoperability	(1) Performance Requirements						7.a(1)	
	logistics, programmatic	(a) What are the warfighter needs from the support system to meet sustained operational requirements?						7.a(1)(a)	
	logistics, interoperability	(b) Do warfighter needs address reduced footprint and total ownership costs as well as improved deployability and sustainability?						7.a(1)(b)	
	logistics, programmatic, interoperability	(c) Are warfighter needs reflected in performance agreements, capabilities documents, and specification documents?						7.a(1)(c)	
	logistics, RAM, programmatic	(d) Are performance measures and metrics (objectives and thresholds) specified to meet user oriented performance requirements (e.g., reliability, operational availability, mission capable rate, customer wait time, cycle time, footprint, cost / operating cycle, life cycle cost), and the target price for the set level of performance?						7.a(1)(d)	
	logistics, programmatic	(e) Are operating and support objectives defined where feasible considering performance histories of prior systems of similar capabilities?						7.a(1)(e)	
	logistics, programmatic	(f) Do requirements improve on logistics footprint reductions, limitations and deployment requirements compared to prior or similar systems?						7.a(1)(f)	
	logistics, programmatic	(g) How do the requirements address the need to reduce multiple configurations?						7.a(1)(g)	
	logistics, programmatic	(h) Are performance agreements and warfighter requirements measurable and aligned with capabilities documents?						7.a(1)(h)	
	T&E, HSI, logistics, RAM, technology, programmatic, interoperability	(2) Key Logistics Considerations						7.a(2)	
	logistics	(a) Is discrete identification of the taxonomy and metrics driving performance-based outcomes provided?						7.a(2)(a)	

Special Interest	Technical Discipline	Legend: R Y G U NA		Item	Comments / Mitigation
	logistics, programmatic	(b) Has a detailed assessment of the requirements for the system to operate successfully in the mission operational environment and the necessary support requirements to achieve that objective been provided?		7.a(2)(b)	
	logistics, RAM, interoperability	(c) Have the logistics reliability targets and the corresponding sustainment infrastructure necessary to ensure achievement of the reliability objectives been provided, given the operational environment and combatant commander availability requirements?		7.a(2)(c)	
	logistics, RAM	(d) Has comprehensive identification of projected maintenance strategy, including diagnostics, prognostics, maintenance duration targets, and similar measures been provided?		7.a(2)(d)	
	logistics, HSI	(e) Have manpower and personnel requirements, both organic and contractor sourced been determined?		7.a(2)(e)	
	programmatic	(f) Are Life Cycle Cost Estimate (LCCEs) continually refined?		7.a(2)(f)	
	logistics, T&E	(g) Will support-related performance and acceptance criteria be demonstrated during planned testing and through modeling and simulation?		7.a(2)(g)	
	logistics, T&E, technology	(h) Will logistics support considerations be included in CDR to encompass life cycle costs, and characteristics such as openness of design, upgradeability, modularity, testability, and commercial technology insertion?		7.a(2)(h)	
	logistics	(i) Are there plans for verification of support-related design characteristics and product support strategy and infrastructure?		7.a(2)(i)	
	logistics, RAM	(j) Have potential organic depot-level sources of maintenance been identified?		7.a(2)(j)	
	logistics, programmatic	(k) Has the PBL product support concept been updated to include development of warfighter and support provider agreements?		7.a(2)(k)	
	logistics, T&E, programmatic	(3) Have the support strategy, sustainment funding requirements, key logistics parameters, and logistics testing criteria been updated?		7.a(3)	
	logistics	(4) Are roles and responsibilities of the program logistician to meet these requirements throughout the life cycle shown by life cycle phase?		7.a(4)	
	logistics, T&E, interoperability	(5) Product Support Manager Responsibilities		7.a(5)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	logistics, T&E, interoperability	(a) Has acceptable performance in development, T&E, and operational assessment been described to include acceptable interoperability and acceptable operational supportability?						7.a(5)(a)	
	logistics	(b) Have the critical aspects of supportability through application of the Supportability Operational Effectiveness (SOE) model been included in the design?						7.a(5)(b)	
	logistics	(c) Has the initial framework and options development for the long-term performance-based support strategy been updated?						7.a(5)(c)	
	hardware, RAM, logistics, PQM, training, T&E, technology, HSI, programmatic, interoperability	b. Performance Based Logistics (PBL)	0	0	0	0	0	7.b	
	logistics, technology	(1) Does the PBL Strategy						7.b(1)	
	logistics	(a) Procure the desired outcomes?						7.b(1)(a)	
	logistics	(b) Consider the logistics footprint?						7.b(1)(b)	
	logistics	(c) Provide exit clauses sufficient to ensure re-establishment of organic or commercial support capability?						7.b(1)(c)	
	logistics, technology	(d) Include technical requirements as appropriate?						7.b(1)(d)	
	logistics	(e) Provide support transparent to the fleet?						7.b(1)(e)	
	logistics, RAM, programmatic	(2) Is the PBL contract agreement structured to provide cost effective performance outcomes consistent with top-level metrics (e.g. Operational Availability, Operational Reliability, Cost per Unit Usage, Logistics Footprint, and Logistics Response Time)?						7.b(2)	
	logistics, programmatic	(3) PBL Business Case Analysis (BCA):						7.b(3)	
	logistics	(a) Is the BCA used to support individual PBL decisions?						7.b(3)(a)	
	logistics, RAM	(b) Does the BCA include the estimated costs and describe the benefits between alternative product support strategies (e.g., buying a predetermined level of availability to meet warfighter's objectives)?						7.b(3)(b)	
	logistics	(c) Are the BCA processes used validated?						7.b(3)(c)	
	logistics, programmatic	(d) Are reviews scheduled in time to support programmatic reviews?						7.b(3)(d)	
	logistics	(e) Does the BCA support product support decision?						7.b(3)(e)	

Special Interest	Technical Discipline	Legend: R Y G U NA	Item	Comments / Mitigation
	logistics	(4) Are the PBL product support provider(s) identified? Are agreements finalized to include the following considerations:	7.b(4)	
	logistics	(a) Is the BCA long term and does it include the appropriate items discussed above for PBL management planning? (BCAs are usually long term)	7.b(4)(a)	
	logistics	(b) Does the BCA identify all stakeholder roles and responsibilities?	7.b(4)(b)	
	logistics	(c) Does the BCA identify sources and data to collect and use?	7.b(4)(c)	
	logistics	(d) Does the BCA identify review and reporting requirements and dispute resolution?	7.b(4)(d)	
	logistics	(e) Are BCAs used to support individual PBL decisions made between alternatives?	7.b(4)(e)	
	logistics, programmatic	(5) Is public-private partnering optimized?	7.b(5)	
	logistics	(6) Are systems established for data collection and for assessment of performance metrics?	7.b(6)	
	logistics, programmatic	(7) Has potential Foreign Military Sales (FMS) participation been considered?	7.b(7)	
	logistics, programmatic	(8) Has the contract Memorandum of Agreement (MOA) / Memorandum of Understanding (MOU) been awarded?	7.b(8)	
	logistics	(9) Is the PBL performance continuously assessed?	7.b(9)	
	logistics	(10) Has a data system to track PBL metrics been implemented?	7.b(10)	
	logistics	(11) Do the supportability analyses with the associated BCA assess the sparing approach (e.g., PBL or legacy support posture)?	7.b(11)	
	logistics	(12) Have the PBL contractors been provided with clearance and access verification system for electronic reporting of requisitions and asset status?	7.b(12)	
	logistics	(13) Has the delivery timeline for shipment been identified?	7.b(13)	
	logistics, training, technology, programmatic	(14) Has PBL been considered as a product support strategy?	7.b(14)	
	logistics	(a) Is PSI PBL performance monitored / managed?	7.b(14)(a)	
	logistics, programmatic	(b) Has the transition of the program's legacy systems and their existing support structures to the PBL approach progressed as planned?	7.b(14)(b)	

Special Interest	Technical Discipline	Legend: R Y G U NA	Item	Comments / Mitigation
	logistics, programmatic	(c) Does the PBL Performance Based Agreement (PBA) reflect the Warfighter requirements and associated KPP?	7.b(14)(c)	
	logistics, training, technology, programmatic	(d) Does the PBL contract include exit criteria should scenarios arise that result in cessation of the PBL contract? Exit criteria may include drawings, technical data, Acceptance Test Procedure (ATPs), support equipment, training, etc.	7.b(14)(d)	
	logistics	(e) Will PBL Supportability BCAs continue throughout the life cycle process with oversight to ensure reassessment at appropriate supportability trigger points?	7.b(14)(e)	
	logistics, programmatic	(15) Has a PBL strategy been developed?	7.b(15)	
	logistics, programmatic	(16) Logistics Requirements and Funding - Are the funding shortfalls to the PBL requirements and impacts identified, prioritized, fully documented and addressed to the program manager and resource sponsor?	7.b(16)	
	logistics, programmatic	(17) Has an Integrated Product Team (IPT) been formed to evaluate the PBL candidate?	7.b(17)	
	logistics, programmatic	(18) Have all stakeholders been identified and invited as IPT participants to include Defense Logistics Agency (DLA), and FMS participants?	7.b(18)	
	logistics, programmatic	(19) Have the PBL strategy and its implementation been structured to continuously reduce the demand for logistics support? (For example, continuous improvement of weapon system supportability and reduction in operating and support costs and reductions in logistics demand, improvement in logistics support system efficiency, and minimization required resources (including time).)	7.b(19)	
	logistics, programmatic	(a) Does the PBL strategy identify the desired outcome?	7.b(19)(a)	
	logistics, programmatic	(b) Will the PBL contract be structured to provide performance incentives?	7.b(19)(b)	
	logistics, programmatic	(c) Are performance metrics clearly defined and understood, using the highest level the metric provider can support?	7.b(19)(c)	
	logistics, programmatic	(d) Do the PBL strategy and its implementation consider reduction of the logistics footprint?	7.b(19)(d)	
	logistics, programmatic	(e) Are exit clauses in the PBL contract sufficient to re-establish organic or commercial support capability?	7.b(19)(e)	
	logistics	(f) Are technical (data) requirements current and sufficient under the exit clause of the contract (i.e., does the Government purchase the data or simply access the data)?	7.b(19)(f)	

Special Interest	Technical Discipline	Legend: R Y G U NA	Item	Comments / Mitigation
	logistics	(g) Is the support strategy transparent to the user?	7.b(19)(g)	
	logistics	(h) Have the PBL strategy and its implementation been reviewed for impacts to Integrated Logistics Support (ILS) elements?	7.b(19)(h)	
	logistics, programmatic, interoperability	(20) Data Package	7.b(20)	
	logistics, programmatic, interoperability	(a) What data are Government owned? In PBL environment, ensure life-of-program Government access to (vice ownership of) data is addressed, including provisions for transfer of data to Government or other support agents at contract exit.	7.b(20)(a)	
	training, RAM, hardware, HSI, logistics, T&E, technology, programmatic	(21) Diminishing Manufacturing Sources and Material Shortages (DMSMS) and Obsolescence	7.b(21)	
	logistics, programmatic	(a) Has the PBL addressed a comprehensive Obsolescence and DMSMS Plan?	7.b(21)(a)	
	logistics, RAM	(b) Are system thresholds for Reliability, Availability, and Maintainability (RAM) being achieved in the fleet?	7.b(21)(b)	
	logistics, programmatic	(c) Have logistics problems been identified using RMA data and has a POA&M been developed for corrective actions?	7.b(21)(c)	
	logistics	(d) Are design review requirements including supportability flowed to design engineering from in-service data?	7.b(21)(d)	
	logistics, technology	(e) Do the technical reviews include an assessment of system supportability requirements?	7.b(21)(e)	
	logistics	(f) Are readiness reviews performed periodically throughout the life cycle and do they include supportability factors?	7.b(21)(f)	
	training, RAM, logistics, HSI, programmatic	(g) Specifies the type of repair (e.g., inspect or repair as necessary, disposal or overhaul).	7.b(21)(g)	
	logistics, programmatic	(I) If this is a commercial depot, is the contract awarded?	7.b(21)(g)(I)	
	logistics, programmatic	(II) When will the depot manager certify the depot for support of the system?	7.b(21)(g)(II)	
	training, RAM, logistics, HSI	(III) When will all organic depot personnel be trained and all required equipment, tools, etc., be in place to perform depot maintenance?	7.b(21)(g)(III)	
	logistics	(h) Have types and quantity of support equipment for each location been established?	7.b(21)(h)	

Special Interest	Technical Discipline	Legend: R Y G U NA	R	Y	G	U	NA	Item	Comments / Mitigation
	T&E, RAM, logistics	(i) Does provisioning documentation identify tools and test equipment by task function and maintenance level?						7.b(21)(i)	
	logistics, T&E	(j) Does provisioning documentation identify the category codes (e.g., source, maintenance and recoverability codes) are identified for support equipment?						7.b(21)(j)	
	logistics, T&E	(k) Does provisioning documentation identify the manufacturer's part numbers, nomenclatures, descriptions, estimated prices and recommended support equipment quantities?						7.b(21)(k)	
	logistics, T&E	(l) Have the Test Program Sets (TPSs) and associated documentation been evaluated and verified?						7.b(21)(l)	
	logistics, T&E	(m) Will the TPSs used at organizational (O-) and intermediate (I-) level be available at IOC and FOC?						7.b(21)(m)	
	logistics, T&E	(n) Have verified TPSs been duplicated and will they be available to the operational sites in time for IOC and FOC?						7.b(21)(n)	
	logistics	(o) Have installation control drawings been delivered?						7.b(21)(o)	
	training, logistics, RAM	(p) Has availability of support equipment and tools at O- and I-level sites and training schools been verified?						7.b(21)(p)	
	logistics	(q) Have all necessary changes to shipboard spaces been made to accommodate the installation and storage of the support equipment?						7.b(21)(q)	
	hardware, programmatic	(r) Is the provisioning technical documentation being procured adequate to support end items that have parts subject to failure or replacement and require maintenance at any level?						7.b(21)(r)	
	logistics	(22) Are the program's legacy systems and support structures planned for PBL establishment and implementation, to include using the PSI to facilitate transition?						7.b(22)	
	logistics, hardware	(23) Is public-private partnership being considered?						7.b(23)	
	logistics, hardware	(24) Are contract clauses sufficient to meet surge requirements and re-establishment of organic or commercial support capability?						7.b(24)	
	hardware, logistics, PQM	(25) What provisions have been made for the identification, change control, quality, sourcing, management / oversight, and disposal of critical safety items?						7.b(25)	
	logistics, risk, hardware, T&E, programmatic, interoperability	c. Product Support Management	0	0	0	0	0	7.c	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	logistics, hardware, interoperability	(1) Has the PSP been updated to reflect the maintenance and support concepts at the system and major hardware configuration item (Weapons Replacement Assembly (WRA) and Shop Replacement Assembly (SRA)) levels?						7.c(1)	
	logistics, interoperability	(a) How does logistics planning support interoperability requirements and data services provided by other programs?						7.c(1)(a)	
	logistics	(b) Have alternative logistics concepts been adequately considered and preliminary cost-benefit trades conducted to justify the product support strategy in the PSP?						7.c(1)(b)	
	logistics	(c) Does the PSP reflect source provider performance agreements pertaining to logistics (if any)? At minimum, reviews and comments concerning maintenance planning and support concepts should be appropriately considered.						7.c(1)(c)	
	logistics, programmatic	(2) Does Supportability IPT have user and other appropriate representation?						7.c(2)	
	logistics	(3) Is a market analysis conducted to scope available systems and product support capabilities (public and private) and to define opportunities for achieving support objectives through design and product support strategies?						7.c(3)	
	logistics, T&E	(4) Are support-related performance and acceptance criteria developed to be demonstrated during planned testing or modeling and simulation?						7.c(4)	
	logistics	(5) Is the PBL strategy being reviewed to evaluate best value and performance options against cost and performance parameters?						7.c(5)	
	logistics, programmatic	(6) Do logistics provider agreements and contracts contain sufficient flexibility to meet surge requirements and to re-establish organic or commercial support capability as necessary?						7.c(6)	
	logistics, risk	(7) Have logistics support program risks and mitigation plans been identified and assessed?						7.c(7)	
	logistics	(8) Has the user's logistics support summary been reviewed and coordinated with the user?						7.c(8)	
	logistics, risk, programmatic, interoperability	d. Product Support Budgeting and Funding	0	0	0	0	0	7.d	
	logistics	(1) Are the correct appropriations identified for each logistics requirement? Have appropriate decisions been made regarding the type of funds used for procurement of PBL resources?						7.d(1)	
	logistics, programmatic	(2) Are logistics funding shortfalls and impacts identified, prioritized, fully documented, and addressed to the program manager and resource sponsor?						7.d(2)	

Special Interest	Technical Discipline	Legend: R Y G U NA	R	Y	G	U	NA	Item	Comments / Mitigation
	logistics, risk	(3) Are the impacts of funding shortfalls understood and plans in place to mitigate risk?						7.d(3)	
	logistics, interoperability	(4) Has logistics planning identified impacts of interoperability and data services supported by others?						7.d(4)	
	PQM, RAM, hardware, logistics, T&E, technology, risk, programmatic	e. Design Interface	0	0	0	0	0	7.e	
	T&E, RAM, logistics, programmatic	(1) Have testability, maintainability and supportability requirements been defined and adequately considered in the preliminary and detailed design?						7.e(1)	
	logistics, hardware, technology, programmatic	(2) Have the results of Failure Mode, Effects, and Critical Analysis (FMECA) been integrated with the Supportability Analysis program?						7.e(2)	
	logistics, hardware, programmatic	(3) Do design processes include adherence to specific derating guidelines, particularly for electronic and electrical components?						7.e(3)	
	logistics, hardware, programmatic	(4) Do the parts and material selection processes ensure items are qualified to the worst case Design Reference Mission Profile (DRMP) and design environment?						7.e(4)	
	hardware, programmatic	(5) Has every electrical utilization equipment configuration item and the electrical power system or target host electrical power systems been designed to the same version of MIL-STD-704?						7.e(5)	
	hardware, programmatic	(a) If not, have trade studies been documented justifying each instance and have the required Engineering Level II Department Heads granted MIL-STD-704 compatibility?						7.e(5)(a)	
	T&E, programmatic	(6) Does the TEMP require MIL-HDBK-704 electrical power qualification testing be conducted on every electrical utilization equipment configuration item?						7.e(6)	
	T&E, programmatic	(a) If not, have the required Engineering Level II Department Heads granted MIL-HDBK-704 compliance testing waivers?						7.e(6)(a)	
	hardware, logistics, PQM	(7) Have the guidance or requirements been documented in the parts and materials design guide before the start of design, addressing parts selection, derating and testability factors? Adherence to the guidelines should be verified at design reviews.						7.e(7)	
	hardware, logistics, PQM	(8) Does the order of precedence for parts selection emphasize the use of qualified manufacturer's parts lists, particularly for applications requiring extended temperature ranges?						7.e(8)	

Special Interest	Technical Discipline	Legend: **R** **Y** **G** U NA	Item	Comments / Mitigation
	hardware, logistics, PQM	(9) Is a preferred parts list required prior to detailed design?	7.e(9)	
	logistics, hardware	(10) Have shelf and operating life requirements been identified?	7.e(10)	
	logistics, RAM	(11) Is identification of COTS / NDI reliability required?	7.e(11)	
	logistics, hardware	(12) Are the parts and materials selected qualified to the worst case DRMP and detail design environments? Uprating or upscreening of parts is not a best practice and should not be performed.	7.e(12)	
	logistics, hardware	(13) Is parts derating required for all electronic and electrical components?	7.e(13)	
	logistics, hardware	(14) Are electrical parameters of parts characterized to requirements derived from the DRMP to ensure that all selected parts are reliable for the proposed application?	7.e(14)	
	logistics, hardware	(15) Are highly integrated parts (e.g., application specific integrated circuits) used to reduce the number of individual discrete parts and chips?	7.e(15)	
	logistics, hardware	(16) Are highly integrated parts (e.g., application specific integrated circuits) used to reduce the number of interconnections?	7.e(16)	
	logistics, hardware	(17) Are highly integrated parts (e.g., application specific integrated circuits) used to reduce the size, power consumption, and cooling requirements?	7.e(17)	
	logistics, hardware, RAM	(18) Are highly integrated parts (e.g., application specific integrated circuits) used to reduce the failure rates?	7.e(18)	
	hardware, logistics, risk	(19) Has the critical items list been developed to include any item of high technical risk with no workaround?	7.e(19)	
	hardware, logistics, risk	(20) Has the critical items list been developed to include items with schedule or delivery risk?	7.e(20)	
	hardware, logistics, risk	(21) Has the critical items list been developed to include sole source items?	7.e(21)	
	hardware, logistics, risk	(22) Has the critical items list been developed to include high failure rate items and safety of flight items?	7.e(22)	
	logistics, hardware	(23) Do COTS / NDI parts and their applications meet DRMP?	7.e(23)	
	logistics, hardware, RAM	(24) Does selection of parts, maintenance processes and materials consider use of the least hazardous materials and process consistent with performance, economy and life cycle costs?	7.e(24)	

Special Interest	Technical Discipline	Legend: R Y G U NA	R	Y	G	U	NA	Item	Comments / Mitigation
	logistics, hardware, programmatic	(25) What provisions for source control and approved suppliers of critical safety items have been made?						7.e(25)	
	logistics, PQM, technology, programmatic	(26) Has the program manager pursued the use of standard systems, subsystems, and support equipment against specific capabilities, technology growth, and cost effectiveness?						7.e(26)	
	logistics, PQM, programmatic	(27) Does the Acquisition Strategy identify common systems integrated into the program?						7.e(27)	
	hardware, logistics, PQM, programmatic	(28) Has the program manager established a process to reduce the proliferation of non-standard parts and equipment within and across system designs?						7.e(28)	
	logistics, RAM, programmatic	(29) Has a process been implemented to assess achieved random access memory performance by collection and analysis of user data?						7.e(29)	
	logistics, RAM	(30) Is a Failure Reporting Analysis and Corrective Action System (FRACAS) established and are failures analyzed and trended for ILS visibility?						7.e(30)	
	logistics, PQM	(31) Will a FRACAS review be performed on engineering development models, pre-production units, and production units?						7.e(31)	
	risk, PQM, logistics	(32) Will mishap reports associated with material and design deficiencies be linked with or provide input into the FRACAS?						7.e(32)	
	logistics	(33) Does CDR include an assessment of system supportability requirements?						7.e(33)	
	PQM, T&E, software, hardware, RAM, logistics, HSI, programmatic, interoperability	f. Maintenance Planning	0	0	0	0	0	7.f	
	logistics, RAM, programmatic	(1) If the Reliability-Centered Maintenance (RCM) approach is implemented, has an on-condition status information system been defined (e.g., CBM+) and integrated?						7.f(1)	
	RAM, HSI, logistics	(2) Does the Maintenance Plan define specific criteria for repair and maintenance for all applicable maintenance levels in terms of time, accuracy, repair levels, built-in-test, testability, reliability, maintainability, nuclear hardening, support equipment requirements (including automatic test equipment), manpower skills, and facility requirements for peacetime and wartime environments?						7.f(2)	
	logistics	(3) Does the Maintenance Plan state any inter-service maintenance requirements, organic and contractor mix, projected workloads, installation requirements and time phasing for accomplishing depot maintenance requirements?						7.f(3)	

Special Interest	Technical Discipline	Legend: R Y G U NA					Item	Comments / Mitigation
	logistics	(4) Have initial estimates of depot capability / capacity and resource requirements been made and documented?					7.f(4)	
	logistics, RAM	(5) Does the Maintenance Plan define the maintenance approach including level of repair and does it include the results of the analysis to determine logical maintenance task intervals, grouping, and packaging?					7.f(5)	
	logistics, RAM	(6) Does the Maintenance Plan define the actions and support necessary to ensure that the system attains the specified Ao and that it is optimized considering RCM, CBM, time-based maintenance, and total ownership cost?					7.f(6)	
	logistics, RAM	(7) Does the Maintenance Plan state specific maintenance tasks, including battlefield damage repair procedures, to be performed on the material system?					7.f(7)	
	logistics	(8) Does the Maintenance Plan state the extent, duration, and use of interim contractor support (when applicable) and provides plans for transition to organic support?					7.f(8)	
	logistics	(9) Does the Maintenance Plan define actions and support required for materiel fielding, including environment, safety, and occupational health planning?					7.f(9)	
	logistics, RAM	(10) Does the Maintenance Plan specify the type of repair (e.g., inspect or repair as necessary, disposal, or overhaul)?					7.f(10)	
	HSI, RAM, logistics	(11) Has maintenance task time been derived from Human Engineering Design for maintainer task analysis?					7.f(11)	
	logistics, RAM	(12) Has maintenance task time been derived from Reliability (e.g., Mean Time Between Failure (MTBF)), Maintainability (e.g., Mean Time to Repair (MTTR), maintenance task times), Availability (e.g., task time limits)?					7.f(12)	
	logistics, RAM	(13) Has maintenance task time been derived from reliability and maintainability, test and performance monitoring, fault detection, fault isolation and diagnostics?					7.f(13)	
	logistics, PQM	(14) What post-production issues have been identified?					7.f(14)	
	logistics, T&E	(15) Will validation tests be conducted under representative operating conditions?					7.f(15)	
	logistics, RAM	(16) Has a preliminary Maintenance Plan been developed?					7.f(16)	
	logistics	(17) Has the preliminary Maintenance Plan been updated to reflect the results of systems engineering and supportability analysis conducted during the systems integration effort?					7.f(17)	
	logistics, RAM	(18) Do RAM thresholds used in establishing the maintenance concept support system availability and performance requirements in the CDD?					7.f(18)	

Special Interest	Technical Discipline	Legend: R Y G U NA	Item	Comments / Mitigation
	logistics, RAM	(19) Does the PSP describe the program's approach to evolving the maintenance and support concepts into an approved Maintenance Plan?	7.f(19)	
	logistics, programmatic	(20) Have funding requirements for interim support, transition planning, and establishment of organic capability been identified and documented in the LRFS?	7.f(20)	
	logistics, programmatic	(21) Have depot capability / capacity and resource requirements been identified and documented?	7.f(21)	
	logistics, software	(22) If applicable, has a Software Support Activity (SSA) been designated for the post-production software maintenance?	7.f(22)	
	logistics, programmatic	(23) Does the user agree with the Maintenance Plan?	7.f(23)	
	logistics	(24) What is the schedule for post-deployment review?	7.f(24)	
	logistics, RAM	(25) Are Maintenance Requirement Cards and Maintenance Index Pages up to date?	7.f(25)	
	logistics, programmatic	(26) Has the interim depot been identified and have plans been made to ensure that it will be ready to accept workload?	7.f(26)	
	logistics	(27) Has a core depot analysis been completed?	7.f(27)	
	logistics, interoperability	(28) Has a depot maintenance inter-service study been completed?	7.f(28)	
	logistics	(29) Are teaming efforts between the depots and original equipment manufacturers being considered?	7.f(29)	
	logistics, hardware, software, RAM	(30) Testability and Diagnostics	7.f(30)	
	logistics, RAM	(a) Is the testability and BIT concept defined with the operational concept and the maintenance concept for all levels of maintenance?	7.f(30)(a)	
	logistics, RAM	(b) Have the design analyses (e.g., fault tree analysis, failure modes, effects and criticality analysis) been used to determine test point requirements and fault ambiguity group sizes?	7.f(30)(b)	
	logistics, RAM	(c) Are the Level of Repair Analysis (LORA) and testability analyses completed for each configuration item and for each maintenance level to identify the optimum mix of BIT, semi-automatic test equipment, and general-purpose test equipment?	7.f(30)(c)	
	logistics, RAM	(d) Are detailed BIT and testability analyses completed by CDR?	7.f(30)(d)	

Special Interest	Technical Discipline	Legend: R Y G U NA						Item	Comments / Mitigation
	logistics, RAM	(e) Is the effectiveness of BIT validated with tests?						7.f(30)(e)	
	logistics, hardware, software	(f) Does the failure of the BIT circuitry precipitate other hardware or software failures?						7.f(30)(f)	
	logistics	(g) Is BIT filtering applied to minimize false alarms?						7.f(30)(g)	
	logistics	(h) Are system anomalies and intermittentancies analyzed for possible changes to the BIT design, thresholds, and tolerances or filtering?						7.f(30)(h)	
	logistics, software	(i) Can BIT software be revised independently and without change to the operating software?						7.f(30)(i)	
	T&E, RAM, training, logistics, HSI, programmatic, interoperability	g. Support Equipment	0	0	0	0	0	7.g	
	logistics	(1) Have the environmental and physical constraints, such as size, weight, power, temperatures and interfaces been factored into support equipment design?						7.g(1)	
	T&E, RAM, logistics	(2) Has an analysis to identify the optimum mix of automatic and manual fault detection and isolation equipment at each applicable maintenance level been conducted?						7.g(2)	
	logistics, T&E	(a) Are other automatic test equipment items and BIT compatible?						7.g(2)(a)	
	logistics, RAM	(3) Are the support equipment strategies and diagnostics concepts defined in the preliminary Maintenance Plan consistent with the LORA, organic repair / contractor support, and sparing strategies?						7.g(3)	
	logistics, RAM	(4) Does the LRFS reflect funds needed to acquire and support Test and Monitoring System (TAMS), including TPS development, maintenance assistance modules, test requirements documents and metrology / calibration services?						7.g(4)	
	logistics	(5) Is there a clear process by which the EMD contractor will validate and demonstrate compliance with fault detection and isolation requirements?						7.g(5)	
	logistics	(6) Has an activity been designated to provide life cycle support for TAMS, including in-service support for TPSs and logistics support for Peculiar Support Equipment (PSE)?						7.g(6)	
	logistics, training, interoperability	(7) Has the installation of new support equipment in maintenance, ship, shore, depot and training facilities been staffed through the appropriate stakeholders?						7.g(7)	
	logistics, training, HSI	(8) Are manpower, training, maintenance levels, and maintenance task requirements identified?						7.g(8)	

Special Interest	Technical Discipline	Legend: R Y G U NA						Item	Comments / Mitigation
	logistics	(9) Has the support equipment requirements document (or equivalent) been submitted by the contractor to justify support equipment requirements and initiate follow-on support activities?						7.g(9)	
	logistics, RAM	(10) Is the required technical documentation to support the support equipment identified and does it include procedures to perform the required tests and diagnostics?						7.g(10)	
	logistics, RAM	(11) Has the required technical documentation to support the support equipment been identified and include test measurement and diagnostic equipment calibration requirements and associated technical parameters?						7.g(11)	
	logistics, RAM	(12) Is required technical documentation for support equipment identified and does it include all product and technical data required to support and operate the support equipment throughout the life cycle of that product?						7.g(12)	
	logistics, RAM	(13) Is required technical documentation for support equipment identified and does it include test fixtures or interfaces to connect the system to the test equipment?						7.g(13)	
	logistics	(14) Have Special Purpose Electronic Test Equipment (SPETE) installations been scheduled?						7.g(14)	
	logistics, RAM	(15) Are required common and peculiar support equipment calibration requirements and procedures, and required maintenance assist modules and tools identified in the users logistics support summary?						7.g(15)	
	HSI, RAM, logistics	(16) Are human engineering and user characteristics (strength, dimensions and perceptual considerations) considered in design of support equipment to ensure safety, efficiency and manpower limitations during sustainment?						7.g(16)	
	logistics, programmatic	(17) Are the deficiencies in the efficiency, cost, and safety of common support equipment outside the PM's management authority communicated to relevant item managers?						7.g(17)	
	logistics, programmatic, interoperability	h. Supply Support	0	0	0	0	0	7.h	
	logistics	(1) Spares Modeling and Readiness Assessment						7.h(1)	
	logistics	(a) Has the Supply Support Management Plan been updated to support systems demonstration?						7.h(1)(a)	
	logistics	(b) Does the sequencing and timing of events in the Supply Support Management Plan logically support planned IOC / Material Support Date (MSD)?						7.h(1)(b)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	logistics	(c) Are accepted sparing analysis and modeling tools being utilized and are the assumptions consistent with the supportability analysis and the prescribed maintenance concept?						7.h(1)(c)	
	logistics	(e) Are supply support funding requirements reflected in the LRFS?						7.h(1)(e)	
	logistics, interoperability	(2) Organic Support						7.h(2)	
	logistics	(a) Are organic support requirements and funding defined to transition from interim to organic support?						7.h(2)(a)	
	logistics, interoperability	(b) Is inter-service visibility planned for optimal organic support selection?						7.h(2)(b)	
	logistics	(c) Is a POA&M developed and implemented?						7.h(2)(c)	
	logistics, interoperability	(3) Is contractor support capable of integrating with the defense logistics chain, including logistics C4I and ebusiness routines?						7.h(3)	
	logistics, programmatic	(4) Warranty Management						7.h(4)	
	logistics	(a) Are mutually beneficial warranty incentives established to facilitate long-term business relationships, and is the provider given incentive to meet specified performance measures?						7.h(4)(a)	
	logistics	(b) Is a cost-benefit analysis conducted to determine the appropriateness of implementing a warranty plan?						7.h(4)(b)	
	logistics, programmatic	(c) Whether PBL or traditional, are warranties being considered and integrated in developing the program's logistics support strategy?						7.h(4)(c)	
	logistics	(d) Does the warranty administration and enforcement include defect reporting, analysis and corrective action processed timely and effective?						7.h(4)(d)	
	logistics	(e) Is a post award cost-effectiveness assessment of the warranty plan periodically performed?						7.h(4)(e)	
	logistics	(f) Does the user logistics support summary identify warranty requirements?						7.h(4)(f)	
	logistics	(g) Have any issues with warranty administration at the O- and I-levels been identified during early fielding of the system?						7.h(4)(g)	
	logistics, programmatic	(h) Have necessary modifications to the warranty program been made?						7.h(4)(h)	

Special Interest	Technical Discipline	Legend: R Y G U NA						Item	Comments / Mitigation
	training, RAM, logistics, HSI, software, T&E, programmatic	i. Manpower, Personnel, and Training (MP&T)	0	0	0	0	0	7.i	
	logistics, HSI, programmatic	(1) Was a Manpower Estimate Report completed and approved? (ACAT 1 only)						7.i(1)	
	training, HSI, logistics, RAM, programmatic	(2) Appropriate Service Planning						7.i(2)	
	HSI, training, programmatic	(a) Has the training been reviewed and approved?						7.i(2)(a)	
	training, HSI, programmatic	(b) Is there a clear plan on how courses and related materials and devices will be developed for training at each required level of maintenance?						7.i(2)(b)	
	training, HSI, programmatic	(c) Is there a plan for validating and verifying training materials?						7.i(2)(c)	
	training, HSI, programmatic	(d) Have training device requirements been coordinated with the acquiring level of maintenance?						7.i(2)(d)	
	HSI, RAM, training, programmatic	(e) Does MP&T planning adequately sequence tasks and events to assure personnel are trained to operate and maintain the system during IOT&E?						7.i(2)(e)	
	training, logistics, HSI	(f) Are training requirements reflected in the LRFS for course and materials development, factory training, and training devices and equipment?						7.i(2)(f)	
	training, HSI, logistics	(g) Are resource requirements specified for training equipment, materials, facilities, and personnel?						7.i(2)(g)	
	training, HSI, logistics, RAM	(h) Will instruction in formal schools, on-the-job-training and follow-on training include system operation and maintenance levels (e.g., daily, weekly, monthly, quarterly, semi-annually and on condition), individual, team, and instructor training?						7.i(2)(h)	
	training, HSI, logistics	(i) Will training requirements reflect configuration updates to the weapon system?						7.i(2)(i)	
	training, HSI, logistics	(j) Is all of the required logistics support (spares, support equipment, etc.) for the training schools planned and on contract and available for delivery at IOC?						7.i(2)(j)	
	training, HSI, logistics	(3) Training Outline and Curricula Design						7.i(3)	
	training, HSI, logistics	(a) Are terminal training objectives defined in detail?						7.i(3)(a)	
	training, HSI, logistics	(b) Are specific criteria established to determine the success of training?						7.i(3)(b)	

Special Interest	Technical Discipline	Legend: R Y G U NA	Item	Comments / Mitigation
	training, HSI, logistics	(c) Are operator and maintainer training embedded in the Interactive Electronic Technical Manual (IETM)?	7.i(3)(c)	
	logistics, HSI	(d) Are job performance aids included?	7.i(3)(d)	
	training, HSI, logistics	(e) Have safety procedures been incorporated into training curricula?	7.i(3)(e)	
	logistics, training, RAM, software, HSI	(4) Training Material	7.i(4)	
	training, HSI, logistics, RAM	(a) Are technical manuals developed prior to the development of training materials?	7.i(4)(a)	
	training, HSI, logistics	(b) Are instructor guides, course curriculum and student guides, as well as audio-visual training aids, developed for classroom training?	7.i(4)(b)	
	logistics, training, software, HSI	(c) Is software developed to disseminate computer-based training?	7.i(4)(c)	
	training, HSI, logistics	(d) Is the training material evaluated for content, clarity and accuracy, typically in a controlled environment of a pilot course, after development?	7.i(4)(d)	
	training, HSI, logistics	(e) Are training courses adequate?	7.i(4)(e)	
	training, HSI, logistics	(f) Do training courses train on the fielded configuration(s)?	7.i(4)(f)	
	training, HSI, logistics	(g) Are training courses conducted in a sufficient timeframe to support IOC and initial fielding?	7.i(4)(g)	
	logistics, training, T&E, software, HSI	(5) Training Devices and Simulators	7.i(5)	
	training, HSI, logistics	(a) Will training devices to support operator or maintainer training be identified?	7.i(5)(a)	
	HSI, T&E, training	(b) Are developmental T&E activities being used for validation of training requirements and initial training for OT?	7.i(5)(b)	
	training, HSI, logistics	(c) Will a military characteristics document be prepared for each training device, defining its basic, physical and functional requirements?	7.i(5)(c)	
	training, HSI, logistics	(d) Is maximum embedded on-board training capability in deployed equipment used?	7.i(5)(d)	
	training, software, logistics, HSI	(e) Are pre-faulted modules or software to simulate faults for diagnostics training used?	7.i(5)(e)	
	training, HSI, logistics	(f) Are simulations of scenarios reflecting the actual operating environment used for operator training?	7.i(5)(f)	

Special Interest	Technical Discipline	Legend: R Y G U NA						Item	Comments / Mitigation
	T&E, RAM, training, logistics, HSI, programmatic	(6) Initial Training Requirements						7.i(6)	
	training, HSI, logistics, RAM	(a) Is initial training provided in the operation, maintenance, or employment of a system or training aid?						7.i(6)(a)	
	T&E, logistics, HSI, training	(b) Are contractor T&E activities used for validation of training requirements and initial training for operational evaluation?						7.i(6)(b)	
	training, logistics, HSI	(c) What are the planned Ready for Training (RFT) dates for each course?						7.i(6)(c)	
	training, logistics, HSI, programmatic	(d) Are training requirements reflected in the LRFS for course and materials development, factory training, training devices and equipment?						7.i(6)(d)	
	risk, logistics, programmatic	j. Packaging, Handling, Storage, and Transportation (PHS&T)	0	0	0	0	0	7.j	
	risk, programmatic	(1) Have potential PHS&T related problems been identified and are risk mitigation plans in place?						7.j(1)	
	risk, programmatic	(2) If new hazardous materials are being introduced, are PHS&T plans adequate to meet statutory and regulatory requirements?						7.j(2)	
	risk, programmatic	(3) Does the LRFS identify PHS&T funding requirements?						7.j(3)	
	logistics, programmatic	(4) Has DoD's computerized Container Design Retrieval System database been searched to preclude the design of new specialized containers when suitable ones exist in the system?						7.j(4)	
	logistics, programmatic	(5) Has the MIL-STD-2073, Military Packaging, been considered for Items that documented analyses have shown cannot be protected and preserved in a cost-effective manner using commercial packaging?						7.j(5)	
	logistics, programmatic	(6) Has the MIL-STD-2073, Military Packaging, been considered for Items delivered during wartime for deployment with operational units?						7.j(6)	
	logistics, programmatic	(7) Has the MIL-STD-2073, Military Packaging, been considered for items requiring reusable containers?						7.j(7)	
	logistics, programmatic	(8) Has the MIL-STD-2073, Military Packaging, been considered for items intended for delivery-at-sea?						7.j(8)	
	logistics, programmatic	(9) Has the MIL-STD-2073, Military Packaging, been considered for items where the contractor has determined military packaging is the optimal packaging solution?						7.j(9)	

Special Interest	Technical Discipline	Legend: R Y G U NA						Item	Comments / Mitigation
	logistics, software, PQM, technology, programmatic	k. Configuration Management (CM) **(See sections 6.b thru 6.b(23))**							7.k	
	logistics, PQM, technology, programmatic, interoperability	l. Product and Technical Data	0	0	0	0	0	7.l	
	logistics, interoperability	(1) Is a concept of operations for an IDE developed, implemented, and managed throughout the system life cycle to ensure information and data interoperability with other programs and their interfacing logistics systems?						7.l(1)	
	logistics	(2) Are logistics product and technical data for new systems received, managed, and stored in an IDE to share data across the DoD?						7.l(2)	
	logistics	(3) Are product life cycle support operations automated using an approved IDE to improve logistics and business processes?						7.l(3)	
	logistics	(4) Are electronic data interchange on-line access and automation issues addressed starting with development of the information exchange requirements and continuing through the IDE concept of operations?						7.l(4)	
	logistics	(5) Have authoritative data sources and the associated change authority been identified?						7.l(5)	
	logistics, technology, PQM	(6) Has a product or technical data management plan (guided by the IDE concept of operations, including change control processes and in-process reviews, as appropriate) been developed and validated?						7.l(6)	
	logistics, technology, PQM	(7) Is a Computer Aided Design, Modeling, and Engineering product source data acquired in acceptable digital format and managed according to the IDE CONOPS?						7.l(7)	
	logistics, technology	(8) Has a designated Government technical data review authority been established?						7.l(8)	
	logistics, technology	(9) Has an IDE implementation plan been identified as a proposal requirement of the RFP or as a contract deliverable?						7.l(9)	
	logistics, PQM, technology	(10) Is there a clear plan for the integration of contractor technical information systems and processes for engineering, manufacturing, and logistics support?						7.l(10)	
	logistics, technology, programmatic	(11) Is Government authorized access to contractor databases necessary to support EMD?						7.l(11)	
	logistics, technology, programmatic	(12) Does the delivery schedule for the technical data package support a competitive production contract?						7.l(12)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	hardware, logistics, PQM, technology	(13) Do drawings of parts and assemblies identified as critical safety items include critical characteristics and quality surveillance requirements?						7.l(13)	
	logistics, T&E, PQM, HSI, RAM, training, risk, programmatic, interoperability	m. Environmental, Safety, and Occupational Health (ESOH)	0	0	0	0	0	7.m	
	HSI, risk	(1) Have all of the ESOH program requirements been achieved or risks mitigated, and solutions integrated into the complete system design?						7.m(1)	
	logistics, risk	(2) Has a program to eliminate ESOH hazards or manage the risk where the hazard cannot be avoided, been established?						7.m(2)	
	logistics, programmatic, interoperability	(3) Has integration of the DoD environmental goals for system planning and development begun?						7.m(3)	
	risk, HSI, logistics, programmatic, interoperability	(4) Program Environmental, Safety and Health Evaluation (PESHE)						7.m(4)	
	risk, HSI, logistics	(a) Has a PESHE been developed that describes the strategy for integrating ESOH considerations into the systems engineering process using the methodologies in the MIL-STD 882D, Standard Practice for System Safety?						7.m(4)(a)	
	risk, HSI, logistics	(b) Has a PESHE been developed that describes an identification of responsibilities for implementing the ESOH strategy been established?						7.m(4)(b)	
	risk, HSI, logistics	(c) Has a PESHE been developed that describes the approach to identify ESOH hazards eliminated or reduced the hazards and implemented controls for managing those ESOH risks where they cannot be avoided?						7.m(4)(c)	
	risk, HSI, logistics, programmatic	(d) Has a PESHE been developed that describes the identification and status of ESOH risks including approval by proper authority for residual ESOH risks (based on DoD policy and MIL-STD 882D)?						7.m(4)(d)	
	risk, HSI, logistics	(e) Has a PESHE been developed that describes the method for tracking progress in the management and mitigation of ESOH hazards and associated risks and for measuring the effectiveness of ESOH risk controls been established?						7.m(4)(e)	
	logistics, HSI, programmatic, interoperability	(f) Has a PESHE been developed that describes a schedule for completing National Environmental Policy Act (NEPA) / Executive Order (E.O.) 12114 documentation (including the approval authority of the documents as detailed in DoD policy) been completed?						7.m(4)(f)	

Special Interest	Technical Discipline	Legend: R Y G U NA	Item	Comments / Mitigation
	logistics, HSI	(g) Has a PESHE been developed that describes the identification of all Hazardous Materials (HAZMAT) and hazardous waste associated with the system and the plan for their demilitarization and disposal?	7.m(4)(g)	
	logistics, T&E, PQM, training, programmatic	(5) Is the NEPA the national charter for protection of the environment? Does it establish policies, set goals and provide means for carrying out environmental policy? The following comprise the NEPA:	7.m(5)	
	logistics, T&E, PQM, training, programmatic	(a) Is a POA&M (NEPA / EO 12114 Compliance Schedule) developed to identify significant program events to ensure NEPA or E.O. 12114 compliance? Does it include at a minimum (as appropriate):	7.m(5)(a)	
	logistics, T&E	(I) Conducting T&E of the system or subsystem?	7.m(5)(a)(I)	
	logistics, PQM	(II) Contracting for production?	7.m(5)(a)(II)	
	logistics, training	(III) Planning basing, training, and home porting locations?	7.m(5)(a)(III)	
	logistics	(IV) Planning new or major upgrades to facilities or supporting infrastructure to support the system?	7.m(5)(a)(IV)	
	logistics	(V) Demilitarization and disposal of the system?	7.m(5)(a)(V)	
	logistics, programmatic	(b) Do the NEPA decisions result in categorical exclusion, finding of No Significant Impact based upon an environmental assessment, or Record of decision based upon an environmental impact statement?	7.m(5)(b)	
	logistics	(c) Do specific impact assessments include, Clean Water Act and National Pollutant Discharge Elimination System Permits?	7.m(5)(c)	
	logistics	(d) Do specific impact assessments include National Pollutant Discharge Elimination System Permits and Marine Mammal Protection Act?	7.m(5)(d)	
	logistics	(e) Do specific impact assessments include Clean Air Act, air permits, National Emissions Standards for Hazardous Air Pollutants and National Ambient Air Quality Standards?	7.m(5)(e)	
	logistics	(f) Do specific impact assessments include Resource Conservation and Recovery Act?	7.m(5)(f)	
	logistics	(g) Do specific impact assessments include Endangered Species Act?	7.m(5)(g)	
	logistics	(h) Is the support system performing as expected?	7.m(5)(h)	
	T&E, risk, RAM, logistics, HSI, programmatic	(6) Safety and health activities	7.m(6)	

Special Interest	Technical Discipline	Legend: R Y G U NA	R	Y	G	U	NA	Item	Comments / Mitigation
	logistics, HSI	(a) Is noise abatement compliant with all Federal and State standards?						7.m(6)(a)	
	logistics, HSI	(b) Is material toxicity compliant with all Federal and State standards?						7.m(6)(b)	
	HSI, RAM, logistics	(c) Is personnel protective equipment compliant with all Federal and State standards?						7.m(6)(c)	
	T&E, risk, logistics, HSI, programmatic	(d) Did the program manager provide a safety release(s) to developmental and operational testers prior to any test using personnel? (A safety release communicates to the activity or personnel performing the test the risks associated with the test and the mitigating factors required, helping to ensure safe completion of the test.)						7.m(6)(d)	
	logistics, risk	(7) System Safety **(See Section 9.c(8))**						7.m(7)	
	training, RAM, logistics, risk	(8) Hazardous Material (HAZMAT) Management						7.m(8)	
	logistics, risk	(a) Have those hazardous materials which are prohibited in the weapon system design (due to operation, maintenance, and disposal costs associated with the use of such materials) been identified and communicated via contracts to include sub-contractors?						7.m(8)(a)	
	logistics, risk	(b) Have hazardous materials and associated processes whose use cannot be avoided been documented and communicated to the user and support installations? This includes an inventory of materials incorporated into the weapon system (to include COTS and NDI) during production and those materials required for maintenance.						7.m(8)(b)	
	logistics, risk	(c) Does the program have a plan for tracking, storing, handling and disposing of hazardous materials and hazardous waste consistent with HAZMAT directives?						7.m(8)(c)	
	training, HSI, logistics, risk	(d) Are hazardous material findings and determinations incorporated into the training program for all system-related personnel as applicable?						7.m(8)(d)	
	logistics, risk	(e) Does the user logistics support summary identify hazardous materials required to support the system?						7.m(8)(e)	
	logistics, risk	(f) What efforts will be made to reduce or eliminate the use of hazardous material for the support of the system?						7.m(8)(f)	
	logistics, risk	(g) Are material safety data sheets available for all hazardous items?						7.m(8)(g)	
	risk, RAM, logistics	(h) Are applicable hazardous material safety procedures called out in associated MRCs?						7.m(8)(h)	

Special Interest	Technical Discipline	Legend: R Y G U NA	Item	Comments / Mitigation
	logistics, risk	(i) Have the hazardous materials required for the maintenance of the system been coordinated with facility or ship for inclusion in their authorized usage lists?	7.m(8)(i)	
	logistics	(9) Pollution Prevention Program	7.m(9)	
	logistics, HSI	(a) Does the pollution prevention program identify impacts of the system on the environment; personnel wastes released to the environment; and associated source reduction opportunities to include noise, engine emissions, and hazardous materials?	7.m(9)(a)	
	logistics	(b) Does the program have a plan to recycle or dispose of system replaceable and disposable components (such as metals, plastics, electronic components, oils, coolants and refrigerants) during system life and end of service life?	7.m(9)(b)	
	training, logistics, programmatic, interoperability	n. Facilities and Infrastructure 0 0 0 0 0	7.n	
	programmatic	(1) Have Military Construction (MILCON) requirements been identified in the LRFS?	7.n(1)	
	training, logistics, programmatic, interoperability	(2) Have the types of facilities and infrastructures required to support and sustain the new or modified system been identified? Do they include:	7.n(2)	
	logistics, programmatic	(a) Parking aprons and hangar space for aircraft?	7.n(2)(a)	
	training, logistics, programmatic, interoperability	(b) Support facilities, supply warehouses, transit sheds, maintenance facilities, dry dock capability, and training facilities (for both classrooms and trainers for operational training and maintenance training, including required product / technical data to ensure efficient, effective support of facilities)?	7.n(2)(b)	
	logistics, programmatic, interoperability	(c) Transient support requirements when the system requires some level of support for continental United States (US) and outside continental US activities that are not regular homeports or support sites?	7.n(2)(c)	
	logistics, programmatic	(3) Does the PSP include analysis to determine facility requirements?	7.n(3)	
	logistics, programmatic	(4) Are the facilities / infrastructure support requirements documented in the PSP, LRFS, and / or the program's Facilities Management Plan or its equivalent?	7.n(4)	
	logistics, programmatic	(5) Is there a Facilities Requirements Document (FRD) and a schedule to conduct site surveys?	7.n(5)	
	logistics, programmatic	(6) Is the facilities requirement development process integrated with the supportability analysis process?	7.n(6)	

Special Interest	Technical Discipline	Legend: R Y G U NA						Item	Comments / Mitigation
	logistics, programmatic	(7) Has environmental planning been performed and documentation provided in accordance with environmental regulation (NEPA / E.O. 12114) for new construction or modification of existing facilities?						7.n(7)	
	logistics, programmatic	(8) Has the program assessed (e.g., site surveys and trade studies) all means of satisfying a facility requirement prior to selecting the use of MILCON?						7.n(8)	
	logistics, programmatic	(9) For construction or alterations less than $750,000, has the program office identified funding to support the construction, and is the contract award in process?						7.n(9)	
	logistics, programmatic	(10) For projects in excess of $750,000 (classified as MILCON), have congressional authorization and funding been approved?						7.n(10)	
	logistics, programmatic	(11) Have the estimates of facility requirements and associated costs been refined (including detailed project documentation) and have cost estimates been developed?						7.n(11)	
	logistics, training, programmatic	o. Automated Information Technology (AIT) **(See section 6.i thru 6.i(2)(g))**						7.o	
	hardware, RAM, logistics, T&E, software, PQM, technology, risk, programmatic, interoperability	p. Diminishing Manufacturing Sources and Material Shortages (DMSMS)	0	0	0	0	0	7.p	
	logistics, programmatic, interoperability	(1) Has a formal DMSMS program been established and documented consistent with the DoD policy and guidance DoD 4140.1-R, DoD Supply Chain Material Management Regulation, 23 May 2003?						7.p(1)	
	logistics, programmatic	(2) Has a formal DMSMS program been established and documented consistent with the ASN (RD&A) memorandum dated 27 January 2005, "DMSMS Management Guidance"?						7.p(2)	
	logistics, programmatic	(3) Has a formal DMSMS program been established and documented consistent with the DASN(L) memorandum dated 12 April 2005, "DMSMS Program Management Plans and Metrics" (and attached Management Plan Guidance)?						7.p(3)	
	logistics, PQM, technology, programmatic	(4) Is the DMSMS strategy integrated with the program's technology roadmap, as well as the industry technology roadmaps for embedded microelectronics?						7.p(4)	
	logistics, PQM, technology	(5) Does the road mapping process consider the identification of critical items and technologies?						7.p(5)	
	logistics, PQM, technology	(6) Does the road mapping process consider the identification of emerging technologies?						7.p(6)	

Special Interest	Technical Discipline	Legend: R Y G U NA	Item	Comments / Mitigation
	logistics, PQM, technology	(7) Does the road mapping process consider the DMSMS forecasts and impacts integrated into technology refresh and insertion planning?	7.p(7)	
	logistics, PQM	(8) Are the DMSMS management approach (e.g., the level of indenture) and strategy (e.g., organic, commercial, PBL, field activity managed) defined and implemented?	7.p(8)	
	logistics, PQM, programmatic	(9) Are DMSMS key activities tied to the IMS and do they identify relationships and interdependencies between tasks?	7.p(9)	
	logistics, PQM	(10) Are active microelectronics managed at the piece part level unless otherwise determined by a BCA?	7.p(10)	
	logistics, PQM	(11) Have DMSMS forecasting and management tools and / or service providers been researched and selected, and has the Bill of Material (BoM) been loaded into the system?	7.p(11)	
	logistics, PQM, technology	(12) Have identification and forecasting for obsolescence timelines, impact, and mitigation been conducted and do they consider Product (revisions and generation / technology changes) and supplier base?	7.p(12)	
	logistics, PQM	(13) Have identification and forecasting for obsolescence timelines, impact, and mitigation been conducted and do they consider contract period and life cycle?	7.p(13)	
	logistics, PQM	(14) Is an on-going review of the parts lists and BoM to identify obsolescence or discontinuance issues conducted?	7.p(14)	
	hardware, logistics, PQM	(15) Has a strategy for DMSMS design and manufacturing documentation been developed to consider design disclosed items, including sub-tier hardware indenture levels?	7.p(15)	
	hardware, logistics, PQM	(16) Has a strategy for DMSMS design and manufacturing documentation been developed to consider form, fit, function, and proprietary design items, including sub-tier hardware indenture levels?	7.p(16)	
	logistics, PQM, technology	(17) Does the design approach minimize the impact of DMSMS by addressing open system architecture?	7.p(17)	
	hardware, logistics, PQM	(18) Does the design approach minimize the impact of DMSMS by addressing order of precedence for parts selection and selection of parts relatively new in their life cycle?	7.p(18)	
	hardware, logistics, PQM	(19) Does the design approach minimize the impact of DMSMS by addressing use of custom parts?	7.p(19)	
	hardware, logistics, PQM	(20) Does the design approach minimize the impact of DMSMS by addressing the requirement for a preferred parts list and parts control prior to detailed design to minimize obsolescence issues?	7.p(20)	

Special Interest	Technical Discipline	Legend: R Y G U NA	Item	Comments / Mitigation
	logistics, PQM, technology	(21) Does the design approach minimize the impact of DMSMS by addressing identification of technology life expectancies?	7.p(21)	
	logistics, PQM, technology	(22) Does the design approach minimize the impact of DMSMS by addressing tie-in with technology refresh and block upgrade?	7.p(22)	
	logistics, PQM	(23) Does the design approach minimize the impact of DMSMS by addressing design reviews to verify DMSMS approaches and solutions?	7.p(23)	
	logistics, PQM	(24) Is a DMSMS BCA performed as part of trade-studies to determine return on investment on mitigation actions and to support DMSMS decisions?	7.p(24)	
	logistics, PQM	(25) Is an obsolescence life cycle (versus contract period) mitigation strategy defined?	7.p(25)	
	logistics, PQM, technology	(26) Are systems that utilize the same components and technologies identified, and are commodity management and preferred material processes established to standardize use of like material across programs?	7.p(26)	
	logistics, PQM	(27) Funding	7.p(27)	
	logistics, PQM	(a) Has DMSMS total ownership cost and cost avoidance been estimated?	7.p(27)(a)	
	logistics, PQM	(b) Is the current and out-year budget established and planned based on DMSMS forecast, tracking, and mitigation efforts?	7.p(27)(b)	
	logistics, PQM	(c) Are funding shortfalls (appropriation, amount, timing) and impact identified, prioritized, and documented?	7.p(27)(c)	
	logistics, PQM	(d) Are budget planning decisions for DMSMS referenced in the sponsor's decision and reflected in the LRFS?	7.p(27)(d)	
	logistics, PQM	(28) Has the program defined DMSMS metrics and does it track DMSMS cases, trends, and associated solutions and cost?	7.p(28)	
	logistics, PQM	(29) Has an exit strategy been developed and is it contained in contractual PBL documentation that provides DMSMS configuration data access necessary to transition product support capability?	7.p(29)	
	logistics, PQM, interoperability	(30) Do contractual data requirements define contractor versus Government life cycle DMSMS tasks and responsibilities?	7.p(30)	
	logistics, PQM	(31) Do contractual data requirements define DMSMS incentives and awards?	7.p(31)	

Special Interest	Technical Discipline	Legend: R Y G U NA	Item	Comments / Mitigation
	logistics, PQM, technology	(32) Do contractual data requirements define decision on ownership of product and technical data package rights and COTS licensing agreements?	7.p(32)	
	logistics, PQM	(33) Do contractual data requirements define PBL / Total System Performance Responsibility (TSPR) strategy for legacy system DMSMS?	7.p(33)	
	logistics, PQM	(34) Do contractual data requirements define DMSMS planning and mitigation requirements?	7.p(34)	
	logistics, PQM	(35) Do contractual data requirements define system architecture design to minimize obsolescence costs?	7.p(35)	
	hardware, logistics, RAM, software, PQM	(36) Do contractual data requirements define DMSMS production, repair, and procurement capability including hardware and software, support and test equipment, tooling and fixtures, and chip and die availability and storage?	7.p(36)	
	hardware, logistics, PQM	(37) Do contractual data requirements define supply chain monitoring and management including contractor and vendor notification of pending parts obsolescence and part and firmware changes?	7.p(37)	
	logistics, PQM	(38) Do contractual data requirements define configuration management to the appropriate obsolescence mitigation levels?	7.p(38)	
	logistics, PQM	(39) Do contractual data requirements define DMSMS database establishment and maintenance through an IDE concept of operations that supports the total life cycle management of the product?	7.p(39)	
	logistics, PQM, technology, T&E	(40) Does the technical data package that supports the DMSMS mitigation strategy, include specifications, technical manuals, engineering drawings, and product data models that provide appropriate level of detail for reprocurement, maintenance and manufacture of the product?	7.p(40)	
	logistics, PQM, technology, T&E	(41) Does the technical data package that supports the DMSMS mitigation strategy include specifications, technical manuals, engineering drawings, and product data models that provide appropriate level of detail for reprocurement, maintenance and manufacture of the product?	7.p(41)	
	PQM, T&E, logistics	(42) Does the technical data package that supports the DMSMS mitigation strategy include special instructions for items such as unique manufacturing, quality and test processes, and preservation and packaging?	7.p(42)	
	hardware, logistics, PQM	(43) Does the technical data package that supports the DMSMS mitigation strategy include Very High Speed Integrated Circuit Hardware Description Language (VHDL) documentation of digital electronic circuitry?	7.p(43)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	logistics, PQM	(44) Does the technical data package that supports the DMSMS mitigation strategy include the version, release, change status, and other identification details of each deliverable item?						7.p(44)	
	logistics, PQM, programmatic	(45) Are the program, design, and production readiness reviews of contractor DMSMS management effective?						7.p(45)	
	logistics, PQM	(46) Has provisioning screening required for maximum use of existing supply items been completed?						7.p(46)	
	logistics, PQM	(47) Are the contractors' DMSMS programs assessed to ensure that program requirements are met?						7.p(47)	
	logistics, PQM	(48) Are the DMSMS considerations incorporated into the PSP and Post Production Support Plan?						7.p(48)	
	logistics, PQM, interoperability	(49) Are items that are single source and those for which the Government cannot obtain data rights and the associated corrective action plans identified?						7.p(49)	
	logistics, PQM, software, risk	(50) Are strategies to resolve potential DMSMS problems (e.g., production or repair capabilities, software upgrades and maintenance, support equipment) established?						7.p(50)	
	logistics, PQM, software, risk	(51) Are predictive cost-effective industry solutions used to reduce DMSMS risks and enhance performance?						7.p(51)	
	logistics, PQM, programmatic	(52) Is a program reprocurement engineering support agreement in place?						7.p(52)	
	logistics, PQM	(53) Is there monitoring of usage and anticipated demand versus items available for DMSMS mitigation planning throughout the items life cycle?						7.p(53)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	logistics, hardware, RAM, software, T&E, technology, HSI, programmatic, interoperability	**8. Requirements Management**	0	0	0	0	0	8	
	software, T&E, logistics, technology, programmatic, interoperability	a. Status of Requirements Management	0	0	0	0	0	8.a	
	programmatic, interoperability	(1) Is there a process in place for requirements management and is it being applied to properly address this stage of the program to include Joint, SoS and FoS requirements?						8.a(1)	
	software, T&E, technology, programmatic	(2) Are requirements being managed and traced from higher level (parent) requirements to lower level (offspring) requirements?						8.a(2)	
	software, T&E, technology, programmatic	(3) Are there any "orphan" or "childless" requirements?						8.a(3)	
	software, T&E, technology, programmatic	(4) Is there full traceability from systems requirements allocated to software provided through: software requirements, software design, interface requirements, interface design, source code and test procedures?						8.a(4)	
	software, T&E, technology, programmatic	(5) Are any COTS, GOTS or reused software traced to: systems requirements, software requirements, interface requirements, interface design, software design, and test procedures?						8.a(5)	
	logistics	(6) Have post IOC plans been developed for continued evolution of sustainment strategies?						8.a(6)	
	logistics	(7) Are logistics and overall sustainment performance requirements stated in the CDD and CPD?						8.a(7)	
	hardware, technology, programmatic	b. Have airworthiness requirements been addressed and documented in the detailed design?						8.b	
	technology, programmatic	c. Is adequate requirements traceability in place to ensure compliance with the CDD / CPD at OT?						8.c	
	hardware, programmatic	d. Are both effectiveness and suitability requirements being addressed and allocated in the detailed design?						8.d	
	software, hardware, logistics, programmatic, interoperability	e. Product Baseline	0	0	0	0	0	8.e	
	software, hardware, logistics, programmatic	(1) Has a Product Baseline, or equivalent, been established and is it complete? Is this baseline under CM control?						8.e(1)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	software, logistics, programmatic	(2) Are the software detailed design documents complete and under configuration control?						8.e(2)	
	logistics, programmatic, interoperability	(3) Are the interface design documents complete and under configuration control?						8.e(3)	
	HSI, logistics, interoperability	f. Net-Centric Consolidated Compliance Checklist (NCCCC)	0	0	0	0	0	8.f	
	logistics, interoperability	(1) Conforms with Net-Centric Policy Requirements (Ref Dec 21 Net-Centric Consolidated Compliance Checklist - NCCCC)						8.f(1)	
	logistics, HSI	(2) Does the detailed design comply with HSI CAL?						8.f(2)	
	hardware, logistics, T&E	g. Requirements Management - T&E	0	0	0	0	0	8.g	
	hardware, logistics, T&E	(1) Are there plans in place to ensure test requirements are addressed and documented to the same level of detail as functional requirements (operation and suitability)?						8.g(1)	
	hardware, logistics, RAM	h. Performance Requirements **(see section 7.a.(1) thru 7.a.(1)(h))**						8.h	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	logistics, T&E, software, RAM, HSI, hardware, PQM, training, technology, risk, programmatic, interoperability	**9. System Detailed Design**	0	0	0	0	0	9	
	logistics, hardware, programmatic	a. Is the subsystem detailed design traced to subsystem requirements?						9.a	
	hardware, RAM, logistics, HSI, programmatic	b. Do the design trades made amongst hardware, software and the human contribute to a balanced solution for the operator and maintainer?						9.b	
	PQM, RAM, hardware, HSI, logistics, T&E, technology, risk, programmatic	c. For the overall system and each CI, the following system requirements should be assessed, as applicable:	0	0	0	0	0	9.c	
	HSI, hardware, programmatic	(1) Have the KPPs and other performance requirements, both explicit and derived been defined, quantified and documented?						9.c(1)	
	hardware, logistics, HSI, programmatic	(2) Have all functional requirements in the functional baseline been allocated to a CI and are these documented in the detailed design and allocated baseline?						9.c(2)	
	hardware, logistics, HSI, programmatic	(3) Is there a traceability matrix that reflects this allocation?						9.c(3)	
	hardware, logistics, HSI, programmatic	(4) If applicable, have airworthiness considerations been addressed?						9.c(4)	
	hardware, logistics, HSI, programmatic	(5) Is there a plan for flight clearance?						9.c(5)	
	PQM, T&E, RAM, hardware, risk, logistics, technology, programmatic	(6) Reliability, Availability, Maintainability (RAM)						9.c(6)	
	logistics, hardware, RAM, programmatic	(a) Have RAM and Built-In-Test (BIT) requirements been addressed in the system detailed designs?						9.c(6)(a)	
	logistics, hardware, RAM, programmatic	(b) Is the final mission profile definition complete and does it accurately define the expected fleet operational environment?						9.c(6)(b)	
	logistics, hardware, RAM, programmatic	(c) Are the final RAM block diagrams and math models complete, accurate, and do they meet the required mission reliability performance requirements?						9.c(6)(c)	
	logistics, hardware, RAM, programmatic	(d) Is the final FMECA complete and accurate with specific examples of design changes implemented to eliminate single point failure modes or improve overall weapons system reliability?						9.c(6)(d)	

Special Interest	Technical Discipline	Legend: R Y G U NA	Item	Comments / Mitigation
	logistics, hardware, RAM, programmatic	(e) Where the FMECA identified single point failures and reliability improvements, were they assessed for safety impacts and criticality?	9.c(6)(e)	
	logistics, hardware, PQM, technology, programmatic	(f) Were safety critical subsystems / assemblies decomposed to the item level, documented as critical safety items, and appropriately coordinated?	9.c(6)(f)	
	logistics, hardware, technology, HSI	(I) Was a critical safety item list (and accompanying technical information) documented, delivered, approved, and provided to appropriate logistics personnel for maintenance planning and provisioning?	9.c(6)(f)(ɪ)	
	PQM, hardware, programmatic	(II) Are the lists accurate and all inclusive?	9.c(6)(f)(ɪɪ)	
	PQM, hardware, programmatic	(III) Do drawings and associated technical data confirm that critical safety items are clearly identified, along with critical and major characteristics, tolerances, critical processes and inspection, and other quality assurance requirements?	9.c(6)(f)(ɪɪɪ)	
	logistics, hardware, RAM, programmatic	(g) Are RAM allocations complete and accurate?	9.c(6)(g)	
	hardware, RAM, programmatic	(h) Are the final reliability predictions using piece part stress technique complete, and do they meet all specified reliability performance requirements?	9.c(6)(h)	
	logistics, hardware, RAM, programmatic	(i) Are the final maintainability predictions complete, and do they meet all specified maintainability performance requirements?	9.c(6)(i)	
	logistics, hardware, RAM, programmatic	(j) Are the final BIT assessments complete, and do they meet all specified BIT performance requirements?	9.c(6)(j)	
	logistics, hardware, programmatic	(k) Are the final thermal, vibration, and shock analyses complete, and do they accurately reflect the anticipated operational environment?	9.c(6)(k)	
	logistics, hardware, programmatic	(l) Is the final derating analysis complete, and does it eliminate overstressed components?	9.c(6)(l)	
	logistics, hardware, programmatic	(m) Have lessons learned been addressed, and implemented where applicable?	9.c(6)(m)	
	logistics, hardware, programmatic	(n) Are trade studies complete and implemented where applicable?	9.c(6)(n)	
	hardware, RAM, logistics, risk	(o) Has RAM risk assessment been completed, and potential mitigation provided?	9.c(6)(o)	
	T&E, RAM, logistics	(p) Have test methodologies and metrics for RAM requirements been defined and are they concurrent with the methodology / metrics from OT?	9.c(6)(p)	

Special Interest	Technical Discipline	Legend: R Y G U NA		Item	Comments / Mitigation
	hardware, risk, programmatic, interoperability	(7) Electromagnetic Environmental Effects (E3) and Spectrum Supportability		9.c(7)	
	hardware, programmatic, interoperability	(a) Does the CPD address spectrum certification compliance, spectrum supportability, host nation approval, the control of E3, and safety issues regarding the Hazards of Electromagnetic Radiation to Ordnance (HERO)?		9.c(7)(a)	
	hardware, programmatic, interoperability	(b) Have the appropriate electromagnetic spectrum requirements been approved to support a Milestone C decision?		9.c(7)(b)	
	hardware, programmatic, interoperability	(c) Has the system design taken into account any limitations or restrictions on Radio Frequency (RF) spectrum use contained in the Military Communications-Electronics Board (MCEB) approved design guidance recommendations?		9.c(7)(c)	
	hardware, programmatic, interoperability	(d) Have the results of the Integrated Topside Design (shipboard term) analysis / study been received and incorporated into the overall acquisition strategy?		9.c(7)(d)	
	hardware, programmatic, interoperability	(e) Have all of the E3 interface specifications of MIL-STD-461E and MIL-STD-464A been adequately verified and addressed prior to production drawing release? (NOTE: This includes electrical bonding, Precipitation static (P-static), Electrostatic Discharge (ESD), subsystem EMI (including COTS and NDI), intra-system EMC, inter-system EMC and High Intensity Radiated Fields (HIRF), lightening effects (direct and indirect), radiation hazards (HERO, HERP and HERF), TEMPEST and Electromagnetic Pulse (EMP) effects, and life cycle E3 hardening.)		9.c(7)(e)	
	hardware, programmatic, interoperability	(f) Have the conclusions and recommendations of the E3 IPT or Electromagnetic Compatibility Advisory Board (EMCAB) been incorporated into the final system design and/or E3 risks appropriately addressed?		9.c(7)(f)	
	hardware, programmatic, interoperability	(g) Has the E3 development (flight worthiness) testing and EMI qualification demonstration successfully occurred or has it been scheduled?		9.c(7)(g)	
	hardware, risk, programmatic, interoperability	(h) Does the program schedule allow adequate time to correct EMI deficiencies prior to production start?		9.c(7)(h)	
	HSI, hardware, programmatic	(8) Have survivability requirements and program established goals been successfully met and incorporated into the system design?		9.c(8)	
	T&E, HSI, hardware, PQM, logistics, risk, programmatic	(9) Have quality and producibility considerations been addressed throughout the supply chain?		9.c(9)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	HSI, hardware, PQM, logistics, programmatic	(a) Has the manufacturing plan been updated to reflect changes in short term and long term Full Rate Production (FRP) requirements including the time phasing of all resource requirements (e.g., personnel, machines, tooling, measurement system, supply chain, etc.)?						9.c(9)(a)	
	HSI, hardware, PQM, logistics, programmatic	(b) Has the manufacturing plan been updated to reflect changes to the defect variation prevention program?						9.c(9)(b)	
	HSI, hardware, PQM, logistics, programmatic	(c) Has the manufacturing plan been updated to reflect changes to manufacturing processes that have defined yield levels and have been validated?						9.c(9)(c)	
	HSI, T&E, hardware, logistics, PQM, programmatic	(d) Has the manufacturing plan been updated to reflect changes to environmental stress screening to precipitate latent, intermittent or incipient defects, or flaws introduced during the manufacturing process?						9.c(9)(d)	
	PQM, risk, hardware	(e) Have updates to the corrective action system been made?						9.c(9)(e)	
	PQM, risk, hardware	(f) Have process capability and quality metrics been updated?						9.c(9)(f)	
	PQM, risk, hardware	(g) Have supplier management programs been updated and are key suppliers in place?						9.c(9)(g)	
	PQM, risk, hardware, programmatic	(h) Is the program clearly controlling and recording design and other changes originating with suppliers?						9.c(9)(h)	
	PQM, risk, hardware	(i) Are supplier quality program plans finalized?						9.c(9)(i)	
	PQM, risk, hardware	(j) Has all of the documentation necessary to produce articles in conformance with design been updated?						9.c(9)(j)	
	PQM, risk, hardware	(k) Is the variability reduction program (continuous improvement) in place?						9.c(9)(k)	
	PQM, risk, hardware, programmatic	(l) Is there appropriate monitoring by the contractor of all changes not requiring Government approval?						9.c(9)(l)	
	hardware, logistics, HSI, technology, risk, programmatic	(10) System safety activities						9.c(10)	
	logistics, risk, hardware, HSI	(a) Has a system safety program, to include interaction with systems engineering, been established?						9.c(10)(a)	
	hardware, logistics, HSI, programmatic	(b) Have program systems safety requirements and goals been successfully achieved per MIL-STD-882 at an optimal level?						9.c(10)(b)	
	hardware, logistics, HSI, programmatic	(c) Have program hazards identified through the system safety initiatives been mitigated or have actions to eliminate those hazards been put in place?						9.c(10)(c)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	logistics, risk, hardware, HSI	(d) Have system safety design requirements been specified and legacy systems, subsystems, and components been analyzed and incorporated into the design requirements as appropriate?						9.c(10)(d)	
	logistics, risk, hardware, HSI	(e) Are hazard risk and assessment criteria specified for operating and support personnel, facilities, and the weapon system?						9.c(10)(e)	
	logistics, risk, hardware, HSI	(f) Is the hazard analysis performed during the design process to identify and categorize hazards, including hazardous materials and associated processes?						9.c(10)(f)	
	logistics, risk, hardware, HSI	(g) Is corrective action taken to eliminate or control the hazards, or to reduce the hazard to an acceptable level?						9.c(10)(g)	
	logistics, risk, hardware, HSI	(h) Is a closed-loop hazard tracking system implemented?						9.c(10)(h)	
	logistics, risk, hardware, HSI	(i) Is Weapon System Explosive Safety Review Board approval obtained as appropriate?						9.c(10)(i)	
	hardware, HSI	(j) If lasers are involved, has the Lasers Safety Review Board been consulted?						9.c(10)(j)	
	logistics, risk, hardware, HSI	(k) Do all systems containing energetics comply with insensitive munitions criteria?						9.c(10)(k)	
	hardware, programmatic	(11) Have aeromechanics considerations been addressed?						9.c(11)	
	hardware, programmatic	(12) Have structures considerations been addressed?						9.c(12)	
	hardware, programmatic	(13) Have materials considerations been addressed?						9.c(13)	
	hardware, programmatic	(14) Have mass properties considerations been addressed?						9.c(14)	
	risk, T&E, software, programmatic, interoperability	d. Have software considerations been addressed? (All available software questions can be accessed by pressing the "Software" button in Row 11, Column C at the beginning of this checklist.)						9.d	
	T&E, hardware, programmatic	e. Test and Evaluation (T&E)	0	0	0	0	0	9.e	
	T&E, hardware	(1) T&E equipment						9.e(1)	
	T&E, hardware	(a) Has test unique equipment for each test aircraft been identified?						9.e(1)(a)	
	T&E, hardware	(b) Is the mechanical and electrical design sufficiently mature for this phase of the program?						9.e(1)(b)	
	T&E, hardware	(c) Has the design installation been coordinated with the appropriate aircraft design groups?						9.e(1)(c)	

Special Interest	Technical Discipline	Legend: R Y G U NA	R	Y	G	U	NA	Item	Comments / Mitigation
	T&E	(d) Have the data processing system design and facility requirements been finalized?						9.e(1)(d)	
	T&E	(e) Are all vendors for instrumentation and data processing hardware and software under contract?						9.e(1)(e)	
	T&E, hardware	(2) T&E Equipment Design						9.e(2)	
	T&E, hardware	(a) Is the mechanical and electrical design of test-unique equipment sufficiently mature for this phase of the program?						9.e(2)(a)	
	T&E	(b) Are the data processing system requirements for the test solidified?						9.e(2)(b)	
	T&E, programmatic	(3) Is the detailed design testable?						9.e(3)	
	T&E, programmatic	(4) Are there plans in place to cover verification via other means as required (analysis, simulation, etc.)?						9.e(4)	
	T&E, programmatic	(5) Is there buy-in among all stakeholders as to these approaches?						9.e(5)	
	software, logistics, programmatic	f. Configuration Management	0	0	0	0	0	9.f	
	software, logistics, programmatic	(1) Are all software configuration items and databases under configuration management control and frozen?						9.f(1)	
	programmatic	g. Has funding been considered?						9.g	
	programmatic	h. Have obsolescence issues been addressed?						9.h	
	hardware, programmatic	i. If applicable, has shipboard interface / integration been considered?						9.i	
	programmatic	j. Has platform diagnostics integration been addressed?						9.j	
	software, hardware	k. Computer / software CIs	0	0	0	0	0	9.k	
	software, hardware	(1) For computer / software CIs, is there sufficient detail to enable coding and testing to begin?						9.k(1)	
	hardware, technology, logistics, risk, programmatic, interoperability	l. Overall System	0	0	0	0	0	9.l	
	hardware, technology, logistics, risk, programmatic, interoperability	(1) For the overall system, and for each CI, the following system constraints (system budgets) should be addressed as applicable:						9.l(1)	
	hardware, programmatic, interoperability	(a) Have physical interface requirements been considered in the detailed design? Have proper tradeoffs been made?						9.l(1)(a)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	hardware, programmatic	(b) Is the CARD consistent with the product baseline and do cost estimates reflect the CARD content?						9.l(1)(b)	
	programmatic	(c) Has development cost been considered in the detailed design?						9.l(1)(c)	
	programmatic	(d) Have production cost budgets been established and have these been considered in the detailed design?						9.l(1)(d)	
	programmatic	(e) Have operations and support costs been considered in the detailed design?						9.l(1)(e)	
	hardware, programmatic	(f) Have weight budgets been established for all CIs?						9.l(1)(f)	
	hardware, programmatic	(g) Has CI weight and its impact of overall system weight been considered and properly traded?						9.l(1)(g)	
	hardware, programmatic	(h) Has volume budget been considered and properly traded?						9.l(1)(h)	
	hardware, programmatic	(i) Has CI volume impact been considered and properly traded?						9.l(1)(i)	
	hardware, programmatic	(j) Has power budget been considered and properly traded?						9.l(1)(j)	
	hardware, programmatic	(k) Has CI power impact been considered and properly traded?						9.l(1)(k)	
	hardware, programmatic	(l) Has cooling budget been considered and properly traded?						9.l(1)(l)	
	hardware, programmatic	(m) Has CI cooling impact been considered and properly traded?						9.l(1)(m)	
	hardware, technology, programmatic	(n) Have the requirements for technology insertion and system growth been allocated to the CIs and reflected in the detailed design?						9.l(1)(n)	
	risk, programmatic	(o) Has risk been considered at the CI level?						9.l(1)(o)	
	hardware, technology	(p) Do plans describe decision support analysis concerning system modernization, technology insertion, block upgrades, etc?						9.l(1)(p)	
	hardware, technology, programmatic	(2) Have the above requirements and constraints been captured in the product baseline (approved product specifications) and traceable back through the updated allocated baseline and functional baselines to the system specification and CDD / CPD?						9.l(2)	
	hardware, RAM, interoperability	m. Interoperability	0	0	0	0	0	9.m	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	hardware, interoperability	(1) Have shipboard interface / integration been addressed?						9.m(1)	
	hardware, RAM, interoperability	(2) Has platform diagnostics integration been addressed?						9.m(2)	
	training, logistics, T&E, hardware, HSI, programmatic	n. Human Systems Integration (HSI)	0	0	0	0	0	9.n	
	HSI, programmatic	(1) Has the program employed an HSI process in the development of current design?						9.n(1)	
	HSI, hardware	(2) Human systems engineering						9.n(2)	
	HSI, hardware	(a) Have human integration design issues been addressed and implemented as part of the current design?						9.n(2)(a)	
	HSI, hardware	(b) Do the program human-machine-interface concepts conform to Human Factors Engineering (HFE) standards in MIL-STD-1472 and American Standard of Testing Materials (ASTM) 1166?						9.n(2)(b)	
	HSI, hardware	(c) Does the system design meet or exceed the human systems engineering requirements appropriate for the system?						9.n(2)(c)	
	HSI, hardware	(d) Does the system design adequately address aviation life support, escape and survivability requirements?						9.n(2)(d)	
	HSI, hardware	(3) Habitability						9.n(3)	
	HSI, hardware	(a) Does the system design adequately address habitability engineering requirements appropriate to the overall system?						9.n(3)(a)	
	HSI, training, logistics, T&E	(4) Training and Training Support						9.n(4)	
	HSI, training, logistics, T&E	(a) Does MP&T planning adequately sequence tasks and events to assure personnel are trained to operate and maintain the system during IOT&E?						9.n(4)(a)	
	HSI, training, logistics	(b) Are training requirements reflected in the LRFS for course and materials development, factory training, training devices and equipment?						9.n(4)(b)	
	training, logistics, software, hardware, T&E, technology, programmatic	o. Computer Resources	0	0	0	0	0	9.o	
	logistics, software	(1) Has a computer and software security plan, including safety, been developed?						9.o(1)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	logistics, software, technology	(2) Are computer and software products and technical data and the supporting infrastructure outlined through an IDE concept of operations that supports the total life cycle management of associated product?						9.o(2)	
	logistics, software	(3) Have software functional requirements and associated interfaces been defined?						9.o(3)	
	programmatic, software	(4) Has the functional baseline for software been established?						9.o(4)	
	logistics, software	(5) Has the gap analysis been performed on candidate COTS software to identify functionality shortfalls?						9.o(5)	
	logistics, software	(6) Have the requirements for system firmware and software documentation been identified and procured?						9.o(6)	
	software, hardware, programmatic	(7) Has a software configuration management plan been developed?						9.o(7)	
	software, programmatic	(a) Is there a software Configuration Control Board (CCB)?						9.o(7)(a)	
	software, programmatic	(b) Does both the Government and the developer participate in the software CCB?						9.o(7)(b)	
	software, hardware, programmatic	(c) What are the criteria for making changes to the system, allocated, and product baselines?						9.o(7)(c)	
	software, hardware, programmatic	(d) Are the impacts on the program's cost and schedule considered when changes are made to the system, allocated or program baselines?						9.o(7)(d)	
	software, programmatic	(e) What are the criteria for approving, disapproving, opening, closing, deferring, etc., defects against software work products (documents and software)?						9.o(7)(e)	
	software, programmatic	(f) How is it ensured that defect corrections are not lost in subsequent software work product releases?						9.o(7)(f)	
	software, programmatic	(g) How is it ensured that the correct versions of the different software work products are associated with each other? Example: How do we ensure that the correct version of the software requirements, software design, software source, software executables and software test procedures are all associated?						9.o(7)(g)	
	software, programmatic	(8) Have measures of effectiveness for software been developed for systems demonstration?						9.o(8)	
	logistics, software, training	(9) Has the SSA been designated and have personnel training and facility requirements been identified?						9.o(9)	

Special Interest	Technical Discipline	Legend: R Y G U NA	Item	Comments / Mitigation
	logistics, software, T&E, programmatic	(10) Have the software testing requirements been identified and integrated into the overall system test program?	9.o(10)	
	software, hardware, T&E, programmatic	(11) How does the TEMP address testing of computer hardware and software?	9.o(11)	
	software, hardware, programmatic	(12) Have requirements for system firmware and software documentation been identified and procured?	9.o(12)	
	logistics, software	(13) Has a software development plan been developed and does it reflect program milestones?	9.o(13)	
	logistics, software	(14) Can and has the software maturity been measured?	9.o(14)	
	logistics, software	(15) Have required software data rights been obtained?	9.o(15)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	hardware, T&E, programmatic	**10. System Verification**	0	0	0	0	0	10	
	hardware, programmatic	a. Does the Requirements Verification Matrix exist and does it accurately reflect the CDD / CPD requirements?						10.a	
	hardware, T&E, programmatic	b. Is the detailed design of each CI consistent with the subsystem test planning and approach?						10.b	
	hardware, T&E, programmatic	c. Is the detailed design of each CI consistent with the system test planning and approach?						10.c	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	hardware, risk, T&E, training, logistics, PQM, HSI, technology, programmatic	**11. Program Risk Assessment**	0	0	0	0	0	11	
	risk, T&E, PQM, training, HSI, technology, programmatic	a. Has a risk management program been established to include both Government and contractor participation and sharing of risks, as appropriate?						11.a	
	hardware, risk	b. Have risk items in the detailed design been defined and analyzed?						11.b	
	hardware, risk	c. Is the risk assessment process tightly coupled with the technical effort and reflective of the technical risks inherent in the detailed design?						11.c	
	risk, T&E, training, PQM, HSI, hardware	d. Has the risk assessment addressed future risks to developmental test, operational test, training, and production / fielding of the system?						11.d	
	software, hardware, risk, technology	e. Is there adequate buy-in among the technical team as to risks and mitigations?						11.e	
	software, PQM, technology, risk, programmatic	f. Is the technical risk assessment being shared at all levels of the program team?						11.f	
	risk, logistics, programmatic	g. Have supportability and logistics risk items been defined, analyzed, and included in the Program Risk Assessment?						11.g	
	risk, logistics	h. Have cost and schedule impacts for supportability and logistics risk mitigation been documented and identified in the LRFS?						11.h	
	risk, T&E, hardware, programmatic	i. T&E risks	0	0	0	0	0	11.i	
	risk, T&E, hardware, programmatic	(1) Is there an understanding of the technical risks associated with the T&E plan as it stands now?						11.i(1)	
	risk, T&E, programmatic	(2) Is there a method for tracing T&E costs to specific capabilities?						11.i(2)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	hardware, T&E, HSI, logistics, PQM, training, software, risk, technology, programmatic, interoperability	**12. Certification and Legal Requirements**	**0**	**0**	**0**	**0**	**0**	12	
	logistics, T&E, HSI, training, technology, hardware, software, risk, programmatic, interoperability	a. Statutory and regulatory requirements	0	0	0	0	0	12.a	
	logistics, T&E, HSI, training, technology, hardware, software, risk, programmatic, interoperability	(1) Have appropriate statutory and regulatory information requirements from Enclosure (3) of DoD Instruction 5000.2 been presented or complied with?						12.a(1)	
	logistics, T&E, HSI, training, technology, software, risk, programmatic, interoperability	b. Service and Platform Specific Requirements	0	0	0	0	0	12.b	
	logistics, T&E, HSI, training, technology, software, risk, programmatic, interoperability	(1) Have Service and platform specific requirements been achieved and complied with?						12.b(1)	
	logistics, T&E, HSI, training, technology, software, risk, programmatic, interoperability	(2) Have all appropriate software requirements been achieved and complied with?						12.b(2)	
	training, logistics, T&E, HSI, hardware, software, PQM, technology, risk, programmatic, interoperability	c. Flight Certification	0	0	0	0	0	12.c	
	hardware, logistics, T&E, HSI, training, technology, software, risk, programmatic, interoperability	(1) Have the appropriate Service flight clearance procedures been complied with, and has a flight clearance been issued?						12.c(1)	
	hardware, logistics, T&E, HSI, training, software, PQM, technology, risk, programmatic, interoperability	(2) If appropriate, have all critical safety items and critical application items been identified?						12.c(2)	
	hardware, logistics, T&E, HSI, training, software, PQM, technology, risk, programmatic, interoperability	(3) Have critical characteristics associated with critical safety items been identified?						12.c(3)	

Special Interest	Technical Discipline	Legend: R Y G U NA					Item	Comments / Mitigation
	logistics, T&E, HSI, training, software, PQM, technology, risk, programmatic, interoperability	(4) Have the critical safety items been linked to the process that produces or controls them?					12.c(4)	

Special Interest	Technical Discipline	Legend:	R	Y	G	U	NA	Item	Comments / Mitigation
	HSI, PQM, hardware, T&E, technology, risk, programmatic	**13. Completion / Exit Criteria**	0	0	0	0	0	13	
	risk, HSI, programmatic	a. Have all draft RFAs been signed off and has an acceptable level of program risk been ascertained?						13.a	
	HSI, programmatic	b. Were the proper technical disciplines represented at the review?						13.b	
	HSI, programmatic	c. If applicable, were all required flight clearance performance monitors involved and do they concur with the detailed design?						13.c	
	HSI, PQM, hardware, T&E, technology, risk, programmatic	d. Typical Exit Criteria include:	0	0	0	0	0	13.d	
	hardware, T&E, technology, HSI, programmatic	(1) Does the status of the technical effort and design indicate OT success (operationally suitable and effective)?						13.d(1)	
	hardware, technology, HSI, programmatic	(2) Can the detailed design, as disclosed, satisfy the CDD?						13.d(2)	
	hardware, risk, technology, HSI, programmatic	(3) Are adequate processes and metrics in place for the program to succeed?						13.d(3)	
High Priority	risk, HSI, hardware, T&E, programmatic	(4) Are the risks known and manageable for DT / OT?						13.d(4)	
	risk, HSI, hardware, programmatic	(5) Is the program schedule executable within the anticipated cost and technical risks?						13.d(5)	
	HSI, hardware, programmatic	(6) Are the system requirements understood to the level appropriate for this review?						13.d(6)	
	HSI, programmatic	(7) Is the program properly staffed?						13.d(7)	
	HSI, hardware, programmatic	(8) Is the program Non-Recurring Engineering requirement executable with the existing budget?						13.d(8)	
	PQM, HSI, hardware, programmatic	(9) Is the detailed design producible within the production budget?						13.d(9)	
	hardware, HSI, programmatic	(10) Has the detailed design satisfied human systems engineering requirements?						13.c(10)	