Space & Missile Systems Center Satellite Acquisition Process

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Following the Materiel Development Decision, the Milestone Decision Authority may authorize entry into the acquisition process at any point, consistent with phase-specific entrance criteria and statutory requirements

DoD Decision Support Systems — Planning, Programming, Budgeting & Execution Process (DEPSECDEF memo, DoD 7000.14-R); Joint Capabilities Integration & Development System (CJCSI 3170.01 series); Defense Acquisition System (DODI 5000.02, DoDD 5000.01). *Effective Interaction is Essential*

Pre – Materiel Development Decision Activities

Conduct Capabilities-Based Assessments, DOTmLPF-P analysis and other studies and analysis to identify gaps in warfighting capabilities and determine non-material and material approaches to resolve or mitigate gaps. Summarize results of assessments/analysis in an ICD and/or Joint DCR. Conduct Development Planning.

Materiel Solution Analysis Phase

Complete Analysis of Alternatives to assess potential materiel solutions to capability need, identify key technologies and estimate life cycle costs. Consider commercial- off-the- shelf and solutions from both large and small business. Identify materiel solution to capability need. Complete Technology Development Strategy.

Technology Development Phase

Reduce technology risk; determine & mature appropriate set of technologies to integrate into full system; demonstrate critical technology elements on prototypes; complete preliminary design. Identify an affordable program or increment of military useful capability; demonstrate technology in relevant environment; identify & assess manufacturing risks. Provide for two or more competing teams producing prototypes of key system elements prior to or through Milestone B.

Engineering & Manufacturing Development Phase

Develop a system or an increment of capability; complete full system integration; develop an affordable and executable manufacturing process; ensure operational supportability with particular attention to minimizing the logistics footprint; implement human systems integration; design for producibility; ensure affordability; protect CPI by implementing appropriate techniques such as anti-tamper and demonstrate system integration, interoperability, safety, and utility. Space systems are required to have acceptable performance in development test activities and acceptable manufacturing risks.

Production & Deployment Phase

Achieve operational capability to satisfy mission needs. Deliver systems and supporting material and services for program or increment to users.

Initial Satellite(s): Acquisition-related activities associated with fabrication, integrated test and evaluation, to include both developmental and operational test and evaluation, deployment (e.g., launch), and support of a new space system.

Follow-On Satellite(s): Procurement of additional satellites beyond those authorized at Milestone C.

Operations & Support Phase

Execute support program that meets materiel readiness and operational support performance requirements and sustains system in most cost-effective manner. Overlaps Production and Deployment Phase.

Life Cycle Sustainment

Disposal

Decision Points/Milestones: MDD, MS A, Pre-EMD Review, MS B, MS C, IOC, IPR, FPDR, FOC

Joint Capabilities Integration & Development System (need-driven)

Strategic Guidance → Capstone Concept for Joint Operations → Joint Operating Concepts → Joint Integrating Concepts

CONOPS, ISCs, Threat → Capabilities-Based Assessment or other study (identify joint warfighting capability gaps) → AFROC/JROC Validation → ICD

ICD (or approved substitute) → DoD Enterprise Architecture Solution Architecture, Technology Development Strategy → draft CDD (Sponsor approval; not provided to MDD system for validation)

Concept Evolution

Oversight & Review

ACAT ID & ACAT IAM (other ACATs have similar process at Component Level)

The Materiel Development Decision precedes entry into any phase of the acquisition management system

IPA/OPT, DAB, MDA → ADM (Exit Criteria)

AoA Study Guidance; AoA Study Plan; AFROC – AFRB – DCAPE

DCAPE approved AoA Study Guidance and AoA Study Plan both due at MDD review

Initiate Evolutionary Acquisition Strategy

Evolutionary Acquisition Strategy

Contracting

BAA in lieu of FAR 15 source selection is used for basic and applied sciences not related to the development of a specific system or hardware/procurement

RFP Workshop → RFP Prep → Draft of section L&M → Draft SFP → TRD & Eval Criteria Coordination by MA/COR → RFP Release by SSA

SRB → Contract Clearance

MIRT

Contractor Proposal Prep; Source Selection

PMs may submit their TDS for MDA approval sufficiently prior to MS A to facilitate preparation of the final RFP

Final RFP for TD cannot be released until Milestone A approval

Major Products

Materiel Development Contract(s) (BAA & FAR 15 Studies); EVM Surveillance

Materiel Solution Contract(s) (BAA & FAR 15 Efforts); EVM Surveillance

Alternative Materiel Solutions

AoA Report (Includes Initial MAUC Report; Select Alternative Solution That Best Satisfies Requirements)

Technology Development Contract(s); Prototypes/ Risk Reduction Tech Demos

Satellite Development Contract

Exercise EMD Options (if applicable)

Prototypes/ Risk Reduction Tech Demos

Exercise Satellite Build Options

First Satellite

Options for Follow-on Satellite(s): Commercial Satellites; Fix parts obsolescence/ Non-recurring engineering issues; Major satellite development (additional increment or new program)

Follow-On Satellites

Logistics/ Sustainment

Define Supportability Objectives; Evaluate Product Support Capabilities; Independent Logistics Assessment

Materiel Solution

Develop Initial Product Support Strategy; Initiate Product Support BCA (Define Ground Rules & Assumptions)

Select Product Support Manager

Product Support Plan: Statutory/Regulatory; Source of Support; Logistics Considerations; Conduct Product Support BCA; Support Data; Product Support Elements; Training; Supply Support; Maintenance; Manpower & personnel

Demonstrate Product Support Capability: Footprint Reduction; Supply Chain Management; Product Support Elements; Finalize Product Support BCA

Product Support Integrator/ Product Support Provider

Product Support/PBL Management: Public-Private Partnering; Supply Chain Management; PBA Modifications; Assessment of PSI/PSPs; Revalidate PBA/BCA; Continuous Tech Refreshment; Obsolescence Management; Configuration Control; Data Management; Product Support Changes & Adjust Product Support

Operations and Sustainment: Peacetime; Training; Revalidate BCA; Refine LCSP

Post-IOC Logistics Assessments (Every 5 Years); FOT&E as required

Defense Acquisition System (event-driven)

Technical

Systems Engineering Test and Evaluation Supportability

Trade Space Characterization; Candidate Solution Sets Characterization; Implementation Analysis

MSA Phase Fully Funded; TD Phase Fully Funded

Financial Management

Should Cost Estimate: CARD, CCE, CCP, ICE (ICE/CCE), Affordability Target

Manpower Estimate (MOAP); Should Cost Estimate: CARD, CCE, CCP, ICE (ICE/CCE), Affordability Requirement

Manpower Estimate (MOAP); Should Cost Estimate: CARD, CCE, CCP, ICE (ICE/CCE), Affordability Assessment

Should Cost Estimate: CARD, CCE, CCP, ICE (ICE/CCE), MDAP/MAIS

Full Funding In FYDP

Cost Estimation Methods: Analogy; Parametric; Engineering; Actual Costs

Types of Funds: RDT&E – Advanced Technology Development; RDT&E – Advanced Component Development and Prototypes; RDT&E – Systems Development & Demonstration; RDT&E – Management & Support; Procurement; Operations & Support

PMO POM Input; PMO Budget Estimate

Planning, Programming, Budgeting & Execution Process (annual-calendar-driven)

Military Departments and Defense Agencies: POM/Budget Formulation → POM/Budget Submit (July)

Office of the Secretary of Defense and Joint Staff: Defense Planning Guidance → Fiscal Guidance (April) → Fiscal Guidance Memo (March)

White House: National Military Strategy; National Defense Strategy; National Security Strategy; National Strategy Documents (updated as necessary)

Issue Nominations/Disposition → Integrated Program/Budget Review (August - November) → Decisions (November) → MBI (December) → DoD Budget → OMB (January) → President's Budget to Congress (February (1st Monday))

SECDEF Option

FYDP updated

Appropriated Funds To Support Contracts

DoD Testimony; DoD Appeals

Allocation; Apportionment

Congressional Budget Process (February – September): Budget Committees → Authorization Committees → Appropriation Committees → Authorization/ Appropriation Acts Passed

Acronyms

ACAT – Acquisition Category
ACE – Acquisition Center of Excellence
ADM – Acquisition Decision Memorandum
AFRB – Air Force Review Board
AFROC – Air Force Requirements Oversight Council
AoA – Analysis of Alternatives
AOTR – Assessment of Operational Test Readiness
APB – Acquisition Program Baseline
ASD – Acquisition Strategy Document
ASD(R&E) – Assistant Secretary of Defense (Research & Engineering)
ASP – Acquisition Strategy Panel
ASR – Alternative Systems Review
ATP – Authority to Proceed
BAA – Broad Agency Announcement
BCA – Business Case Analysis
BLRIP – Beyond Low Rate Initial Production
CAPE – Cost Assessment & Program Evaluation
CARD – Cost Analysis Requirements Description
CBRN – Chemical, Biological, Radiological & Nuclear
CCE – Component Cost Estimate
CCP – Component Cost Position
CCTD – Concept Characterization & Technical Description
CD – Executive Director
CDD – Capability Development Document
CDR – Critical Design Review
CI – Configuration Item
CIO – Chief Information Officer
CONOPS – Concept of Operations
CPD – Capability Production Document
DAB – Defense Acquisition Board
DASD(DT&E) – Deputy Assistant Secretary of Defense (Developmental Test & Evaluation)
DASD(SE) – DASD(Systems Engineering
DCAPE – Director, Cost Assessment & Program Evaluation
DCR – DOTmLPF-P Change Recommendation
DOTmLPF-P – Doctrine, Organization, Training, material, Leadership and Education, Personnel, Facilities & Policy
DPM – DAB Planning Meeting
DRM – DAB Readiness Meeting
DT&E – Developmental Test & Evaluation
ECP – Engineering Change Proposal
EOA – Early Operational Assessment
ESB – Early Strategic Issues Session
ESOH – Environment, Safety, and Occupational Health
EVM – Earned Value Management
FAR 15 – Federal Acquisition Regulation, Part 15
FCA – Functional Configuration Audit
FCB – Functional Capability Board
FMECA – Failure Mode Effects & Criticality Analysis
FOC – Full Operational Capability
FOT&E – Follow-On Test & Evaluation
FPDR – Follow-On Production Decision Review
FTA – Failure Tree Analysis
GEO – Geosynchronous Earth Orbit
HEO – Highly Elliptical Orbit
IBR – Integrated Baseline Review
ICE – Independent Cost Estimate
ICD – Initial Capabilities Document
IOC – Initial Operational Capability
IOT&E – Initial Operational Test & Evaluation
IPA – Integrated Program Assessment
IT – Information Technology
ISC – Integrated Security Construct
ISR – In-Service Review
ISP – Information Support Plan
ITR – Initial Technical Review
JITC – Joint Interoperability Test Command
JROC – Joint Requirements Oversight Council
KMDS – Knowledge Management/Decision Support
KPP – Key Performance Parameter
KSA – Key System Attribute
L & M – Instructions to Offerors (L) & Evaluation Criteria (M)
LCMP – Life Cycle Management Plan
LCSP – Life Cycle Sustainment Plan
LEO – Low Earth Orbit
LFT&E – Live Fire Test & Evaluation
LRIP – Low Rate Initial Production
MAIS – Major Automated Information System
MAJCOM – Major Command
MDA – Milestone Decision Authority
MDAP – Major Defense Acquisition Program
MDD – Materiel Development Decision
MEO – Medium Earth Orbit
MIRT – Multi-Functional Independent Review Team
MS – Milestone
MSA – Materiel Solution Analysis
MTA – Maintenance Task Analysis
NEPA – National Environmental Policy Act
NSS – National Security Systems
OA – Operational Assessment
OPT – Overarching Integrated Product Team
O&S – Operations & Support
OTRR – Operational Test Readiness Review
PBA – Performance-Based Agreement
PBL – Performance-Based Life-Cycle Product Support
PCA – Physical Configuration Audit
P-CDRA – Post Critical Design Review Assessment
PDR – Preliminary Design Review
PEO – Program Executive Officer
PESHE – Programmatic Environment, Safety & Occupational Health Evaluation
PI – Program Management & Integration Directorate
PMO – Program Management Office
POM – Program Objectives Memorandum
P-PDRA – Post PDR Assessment
PPP – Program Protection Plan
PRR – Production Readiness Review
PSI – Product Support Integrator
PSM – Product Support Manager
PSP – Product Support Provider
PSR – Program Support Review
RAD – Requirements Approval Document
RAM-C – Reliability, Availability, Maintainability & Cost Rationale Report
RCM – Reliability Centered Maintenance
RDT&E – Research, Development, Test & Evaluation
RFB – Request for Bid
RFP – Request for Proposal
RFI – Request for Information
RMS – Reliability, Maintainability & Supportability
SDMP – Space Debris Assessment Report
SDR – System Design Review
SDR-A – SDR Assessment
SEP – Systems Engineering Plan
SFR – System Functional Review
SRB – Solicitation Review Board
SRR – System Requirements Review
SSA – Source Selection Authority
STA – System Threat Assessment
SVR – System Verification Review
TD – Technology Development
TDS – Technology Development Strategy
TEMP – Test & Evaluation Master Plan
TLCSM – Total Life Cycle Systems Management
TRA – Technology Readiness Assessment
TRD – Technical Requirements Document
TRR – Test Readiness Review