

MEMORANDUM

From: Code 7207

To: Code 7200

SUBJ: DEFINITIONS OF SYSTEM REQUIREMENT, PRELIMINARY DESIGN AND CRITICAL DESIGN REVIEWS

1. The definitions of System Requirement Review (SRR), Preliminary Design Review (PDR) and Critical Design Review (CDR) are derived from Military Standard 488 (Management) and Military Standard 1521 (Software).
2. The objective of the SRR is to describe and assess the baselined set of requirements (top level and derived) for the system and subsystem as well as a selected implementation. Specific subjects to be reviewed will usually include such items as:
 - Finalized Mission Requirements
 - System and Subsystem Design Requirements (top level and derived)
 - Selected Implementation
 - Final Trade-Off Studies
 - Continued Analyses
 - Definition of Environments and Interface Requirements
 - Weight and Power Budget
 - Development Test Plans

The SRR will normally be scheduled at a time when the design is sufficiently developed and the key system trades have been completed. Between SRR and PDR, Breadboard Model may have been built.

3. The objectives of the PDR are to examine in detail the baseline mission design. The PDR typically covers such items as:
 - Mechanical Design Layouts
 - Electronic Functional Block Diagram
 - Design Analyses and Performance Analyses
 - System and Integration Schedule
 - Weight and Power Budget
 - Manufacturing and Qualification Test Planning
 - Status of Reliability, Quality Assurance, and Systems Safety Programs
 - Mission Operations and Status of Planning for Mission Handling

Each Subsystem typically addresses the following:

- Basic Design, Trade Studies, Analyses, Test Outline, Ground Support Equipment Requirements, and Long Lead Items

The PDR will normally be scheduled at the completion of the preliminary design phase and prior to the detailed design of hardware. Between PDR and CDR, Proto-Type or Engineering Model may have been built.

4. The objectives of the CDR are to examine details of the final design and mission, fabrication plans, and qualification as related to program requirements, and cover such items as:
 - Design Requirements Statement and Updated Final Design and Analyses
 - 90% Engineering Drawing Release
 - Development Test Results
 - Calibration Test Results
 - Functional and Performance Test Results
 - Weight and Power Budget Qualification Test Plans
 - Reliability, Quality Assurance, and Safety Programs
 - Review of the Plans for Data Retrieval, Analysis, and Publications
 - Instrument Requirements Statement

The CDR will normally be scheduled at the completion of the detailed design and prior to the fabrication of final hardware.

5. It should be noted, however, depending on the reliability requirements over the intended operational life of the mission, standard for the reviews can be changed according to the mission requirements.
6. The memo is written with the support from Mr. Dave Spencer of Code 8000.

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Cc:
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