

# **MMA Design Review Guidelines**

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## **Preliminary Design Review (PDR)**

To be held early enough in the D&D Phase so that a change in direction is still possible if the need for such a change is identified by the review.

The purpose of the PDR of an MMA Subsystem is principally to review 3 questions:

- (1) Are the top level performance requirements for the subsystem complete and adequate?
- (2) Have the correct design solutions been selected for study and development during the MMA D&D Phase? Are there important alternate solutions that are not being studied?
- (3) If a major procurement is required for the subsystem during the MMA D&D Phase, is the procurement plan correct?

The PDR will be organized and chaired by the MMA Division Head responsible for the subsystem. The Review Board will include the following:

- (a) At least 2 experts from outside the MMA Project. In the event that the Review cannot be scheduled because of difficulty in arranging the attendance of a second expert, it will be acceptable to solicit the opinions of the second expert in writing after his/her review of all of the materials presented at the Review.
- (b) The Project Manager and/or the Project Systems Engineer.
- (c) The Project Scientist or his/her designee.
- (d) At least one representative of any MMA Division potentially impacted by the design of the subsystem.

## **Critical Design Review (CDR)**

To be held before expenditure of significant funds on the construction of field equipment which will be incorporated into the test interferometer.

The purpose of the CDR of an MMA Subsystem is principally to review 4 questions:

- (1) Are the detailed requirements for the subsystem complete and adequate?
- (2) Will the design selected for implementation on the test array meet the requirements?
- (3) Are interfaces to other subsystems defined adequately and completely?
- (4) Has adequate attention been given to the produceability and maintainability of the subsystem?

Meeting organization and attendance to be the same as a PDR.

## **Pre-production Review (PPR)**

To be held before commencement of the quantity production of the subsystem.

The purpose of the Pre-production Review of an MMA Subsystem is principally to review the 2 questions:

- (1) Is the design, prototyping and testing of the subsystem sufficiently mature to warrant its production in large quantities?
- (2) Are the production plans for the equipment correct?

Meeting organization and attendance to be same as a PDR.

## **Review Documentation (all reviews)**

- (1) Minutes will be kept of the Review.
- (2) As the last activity of the Review all Review Board members will be asked to answer the key questions and to identify any important Issues.
- (3) The responsible Division Head must arrange for written responses to all Issues within one month of the Review. These responses will become part of the Review documentation package.
- (4) It is the responsibility of the MMA Project Manager to determine what further action is required as follow-up to the Issues and Responses.