

EVLA Project Book: INTRODUCTION

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Revision History:

2001-Aug-01: Initial release

2002-May-31: Configuration control in March 2002 noted

2006-March-29: Annotation regarding no support for Phase II

The goal of the Expanded Very Large Array (EVLA) Project is to improve most of the key observational capabilities of the Very Large Array (VLA) by at least an order of magnitude. Originally, the Project was divided into two Phases. The objective of Phase I is to improve the sensitivity, bandwidth, spectral resolution and frequency coverage of the existing 27 element array by the application of modern technologies. Funding was provided for Phase 1, and work has commenced on this phase. The objective of Phase II was to increase the angular resolution of the existing VLA by adding additional array elements around New Mexico. Phase II also considered the addition of a condensed array configuration smaller than the existing D configuration and the addition of low frequency observing bands to the existing antennas. A proposal for Phase II was submitted to the National Science Foundation (NSF) in April 2004. The proposal was reviewed at the NSF in June 2005. In December 2005, the NRAO was notified that the NSF was not able to support the proposal. This Project Book describes only the Phase I project.

This Project Book is intended to satisfy several functions. It is the principal description of the science requirements, the technical specifications, the design selected to achieve the specifications, the schedule on which tasks are to be accomplished, and the task responsibilities. Where one task interacts with another, either in the design or integration, the interface requirements are specified.

The Project Book was placed under configuration control on 01 March 2002. From that time specifications in the Project Book – technical specifications, interface specifications, schedule and budget – will be controlled by EVLA System Engineering. Changes will not be made to the configuration without the process specified by System Engineering, through the EVLA Change Control Board, being followed and approval granted.

The Project Book is the fundamental reference for what is, and is not, in the Project. As decisions are made and implemented, those decisions will be incorporated into the Project Book. The Project Book is kept electronically and is always available on-line for reference by the Project and interested others. A revision history is included to aid change tracking. Although it is a living document and will evolve, it is at all times the current, and complete, Project configuration. Maintenance of the Project Book is the responsibility of EVLA Systems Engineering.