

Commissioning the Very Large Array and the Jansky Very Large Array

As a post-doc at the Very Large Array in the late 1970s, and as the Project Scientist of the Expanded Very Large Array (now the Jansky Very Large Array), I was intimately involved in the engineering and science commissioning of both instruments. The commissioning processes for these two projects were notable for their lack of structure and formality. That this apparently uncoordinated, undirected approach worked well is incontestable –both projects were completed ‘on time, on budget, and on spec’.

In this presentation, I will discuss the reasons why this approach worked so well for the VLA and JVL. The major factors were the extremely experienced and stable key staff, all working in the same building close to, or at, the array, for the duration of the construction phase for both projects. This experience and proximity resulted in highly efficient lines of communication, thus greatly reducing the need for formal meetings, reports, etc. Almost equally important was the informal and relaxed approach to obtaining test time on the array, and in the test reporting process.

Due to the size, distribution, and complexity of the SKA construction, the commissioning process for this project must necessarily be more formal and structured than that for the highly centralized VLA and EVLA. Nevertheless, I will argue that there is great benefit in giving easy and open commissioning and testing access to the array during the construction/commissioning process. The bottom line is: ‘Hire experienced and committed individuals, and let them do their work with a minimum of oversight and management’.

Suggested duration

30 minutes

Primary author: Dr PERLEY, Richard (National Radio Astronomy Observatory)

Presenter: Dr PERLEY, Richard (National Radio Astronomy Observatory)

Session Classification: Commissioning II

Track Classification: Commissioning