

# **Science Operations**



### **Your Proposal**

- The science program will be determined by proposals led by principal investigators.
- Regular calls will solicit proposals.
- Proposals will be peer reviewed, then ranked based on scientific merit, technical feasibility and the time available at the bands and LSTs that they require.

### **Your Observations**

- Approved proposals will be converted into scheduling blocks that generally conform to standard observing strategies.
- Blocks will be scheduled dynamically according to the facility's environmental conditions and status, and the proposals' rankings and requirements.







The next-generation Very Large Array (ngVLA) is a design and development project of the National Science Foundation operated under cooperative agreement by Associated Universities, Inc.

The National Radio Astronomy Observatory is a facility of the National Science Foundation operated under cooperative agreement by Associated Universities, Inc.

Data will generally be delivered to the proposal team as Science Ready Data Products; that is, automated pipelines will calibrate the raw data and create quality assured, higher level data products. Data will be proprietary to the

proposal team for a fixed period. Thereafter, the raw data and the Science Ready Data Products will be released to the public. By providing standard observing strategies and delivering Science Ready Data Products, the facility aims to support a broad community of users and to expedite multi-wavelength and multi-messenger astronomy.

# ngVLA Operations Concept

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#### **Your Data**





Three primary centers will support the operations and maintenance of the facility. A Maintenance Center with expedient access to the dense core of antennas An Array Operations and Repair Center in Socorro, New Mexico A Science Operations and Data Center in a U.S. metropolitan area



# **Array Operations and Maintenance**

- The facility will generally be operated in subarrays, allowing science observing and array maintenance to occur simultaneously.
- To minimize maintenance costs, the design will focus on efficiency, including using modularized components, minimizing antenna visits for preventative maintenance and repair, and utilizing automated diagnostics.