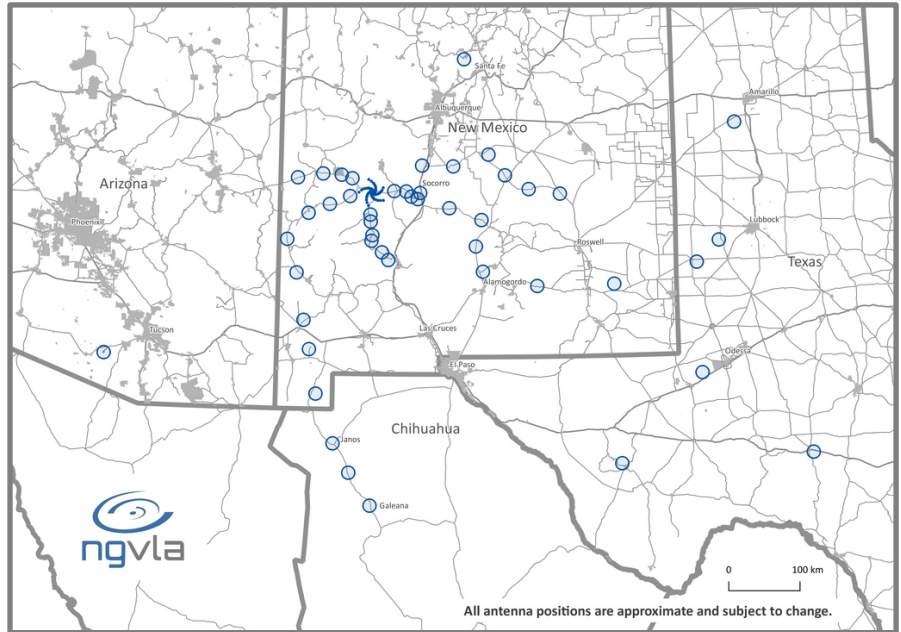


NRAO Observatories: Future

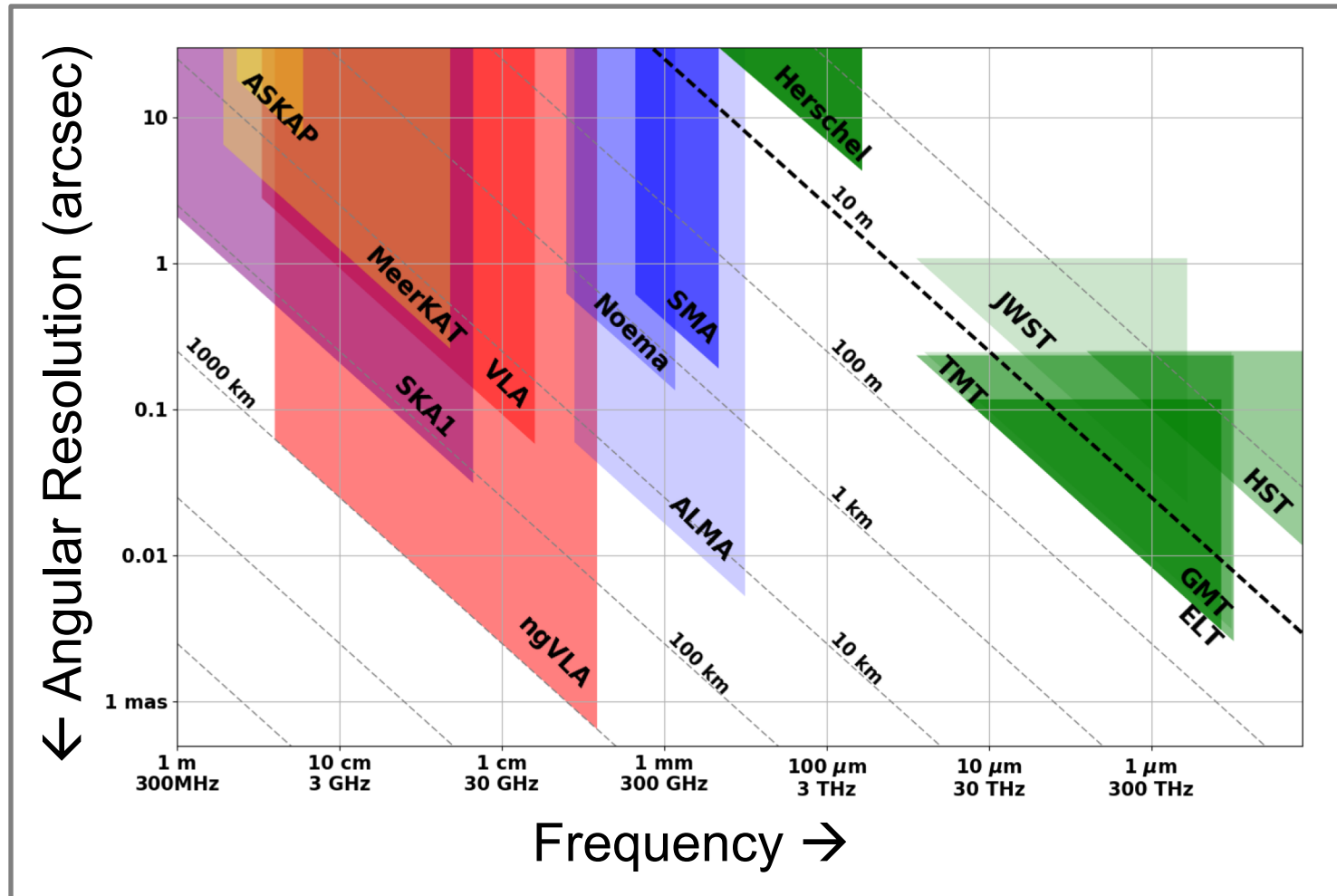
The next-generation Very Large Array is a new telescope under development for Astro2020

- **Antennas:** 214 x 18m
- **Frequency:** 1.2-116 GHz
- **Sensitivity:** ~10X more sensitive than VLA/ALMA
- **Resolution:** 30X longer baselines than the VLA

ngvla.nrao.edu

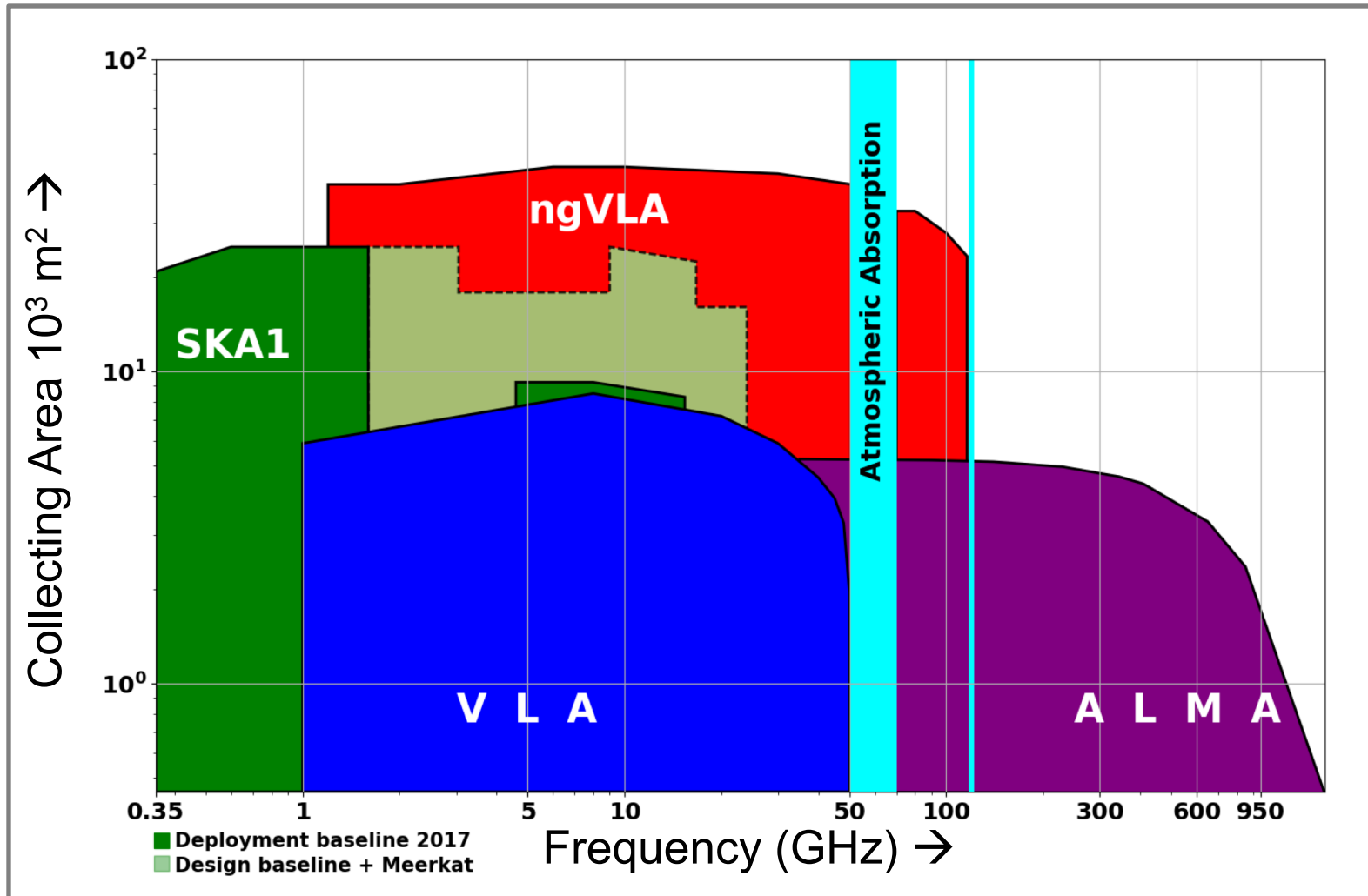


Next-generation Very Large Array



ngVLA is complementary to ALMA + SKA in terms of frequency coverage and resolution

Next-generation Very Large Array



ngVLA will have a larger collecting area compared to the VLA, ALMA, and SKA1

ngVLA Key Science Goals

- **KSG1:** Formation of Solar System Analogs
- **KSG2:** Initial Conditions for Planetary Systems and Life through Astrochemistry
- **KSG3:** Charting Galaxy Assembly, Structure, and Evolution from the First Billion Years to the Present
- **KSG4:** Fundamental Tests of Gravity using Galactic Center Pulsars
- **KSG5:** Formation & Evolution of Stellar & Supermassive Black Holes in the Era of Multi-Messenger Astronomy



See **ngVLA Science Book** for details!

