

US ELT

The U.S. Extremely Large Telescope Program



National Optical Astronomy Observatory www.noao.edu







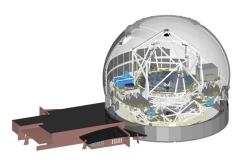




A new research frontier in astronomy and astrophysics will open in the mid-2020s with the advent of ground-based extremely large optical-infrared telescopes (ELTs) with primary mirrors in the 20-m – 40-m range. U.S. scientific leadership in astronomy and astrophysics will be significantly enhanced if the broad U.S. community can take advantage of the power of these new ELTs.

The National Science Foundation's (NSF) National Optical Astronomy Observatory (NOAO), the Giant Magellan Telescope Organization (GMTO), and the Thirty Meter Telescope International Observatory (TIO) are working collaboratively to develop a U.S. Extremely Large Telescope (US-ELT) Program.

Our mission is to strengthen scientific leadership by the U.S. community-at-large through access to extremely large telescopes in the Northern and Southern Hemispheres. This two-hemisphere model will provide the U.S. science community with greater and more diverse research opportunities.



Advocacy for frontier research programs led by U.S community scientists that can achieve exceptional advancements in humanity's understanding of the cosmos. As an essential part of that immediate task, we will work with the U.S. research community to develop exemplar Key Science Programs (KSPs) within major research areas including:

- · The dark universe
- · First stars & first galaxies
- Exoplanet atmospheres
- Surfaces of satellites and other small bodies throughout Solar System
- Other topics to be proposed and prioritized by community-based working groups

