SYMPOSIUM ON NEW TECHNOLOGIES FOR FUTURE SPACE ASTRONOMY MISSIONS (A7)
Long Term Perspective (1)

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# SCIENCE DRIVERS FOR COMMUNITY DRIVEN SPACE ASTRONOMY MISSIONS

**Abstract**

The ASTRO2010 Decadal report sponsored by the United States National Academy of Sciences derives from input from the entire astrophysics community. It outlines the science challenges for the next decade and beyond as well as technologies required to research those topics. Understanding the nature of the early universe, characterizing the myriad extrasolar planets already found, searching for Earth sized and smaller planets, and understanding the details of galaxy assembly and star formation are but a few of the subjects outlined. The major tools necessary to research such topics are "Community Driven" missions -those providing technologies advanced enough for astrophysicists to pursue sophisticated yet fundamental questions.

While Community-type missions can more costly and their technologies are often more complex, they also offer a significant reward for a major segment of the scientific community as well as providing enormous return for the public. The motivation for upcoming missions and those being discussed for the future will be presented along with lessons learned from the current suite of missions including HST.