

The Future of the United States for Planetary Defense

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Detection

The United States has one of the world's largest and most developed detection programs, despite being hampered by the loss of the Arecibo Radio Telescope, this capability stands today. Moving forward, the role of the United States in the realm of NEO detection will continue, but will be diminished. It will become necessary for nations around the world to invest in detection infrastructure so as to maximize detection capability and deliver precise orbital data of NEOs. One nation, however large, will not be able to do this, so any effective detection strategy must include the necessity for all nations, no matter their size, to be a part of the global detection network.



Organization

Since the Beginning of the space age, the United States has been at the forefront of scientific and technological innovation in the field. Today, this is no different nor will it change in the near future. The nation's status as a global leader in the field will continue to be of the utmost importance that the world develops a strategy to combat NEOs. Without a strong leader at the top, there will be no actionable plan for detecting and combating NEOs. It is necessary to take charge of this endeavor, but in collaboration with global partners.



Response

The United States continues to have one of the world's greatest launch capabilities. The development of its commercial space industry has only increased these capabilities as private companies such as Blue Origin and SpaceX, and the United Launch Alliance all are working on heavy lift launch vehicles. The future capability to launch large objects into orbit will be necessary for the future of planetary protection. However, one place that the United States may not have as large a role in will be the deployment of smallsats. While it does have a robust smallsat industry, certain mission profiles that might be necessary for parts of planetary protection systems might not be possible to be launched from the U.S. Here, other countries could play a critical role in the response to a threatening NEO.

