

Dear Senator XXX or Representative XXX,

I am a XXX at XXX and a resident of XXX in XXX. I am writing to you today to ask that you consider the allocation of funds for a future Arecibo Observatory to be included in the final version of the US Innovation and Competition Act/America COMPETES Act bill. In particular, we are asking that Congress allocate \$12 million for a design study to determine the best, most competitive, and groundbreaking future instrument for the site in order to ensure that the U.S. stays at the forefront of radio science and of planetary defense efforts.

There is no dispute about Arecibo's unparalleled contributions to astronomy, planetary science, and atmospheric science. This has been made clear through numerous reports, articles, and decadal surveys, as well as by the recent [unanimous passing](#) of a [Senate Resolution](#) that encourages the NSF "to study means of replacing the scientific capabilities that were lost at the Arecibo Observatory, utilizing new state-of-the-art technologies at the site".

The recently released National Academies of Science, Engineering, and Medicine [Planetary Science and Astrobiology Decadal Survey](#) report, titled "Origins, Worlds, and Life: A Decadal Strategy for Planetary Science and Astrobiology" finds that "the loss of the Arecibo Observatory planetary radar program has resulted in a significant gap in solar system observations, particularly in support of planetary defense." Restoring radar capabilities at the Arecibo Observatory is absolutely essential for ensuring the ability of the U.S. to maintain a strong planetary defense infrastructure.

Additionally, the disciplinary science panel of the recent [National Academies Decadal Survey on Astronomy and Astrophysics](#) (Astro2020) found Arecibo "irreplaceable", offering "unique capabilities for addressing a number of key high-priority science questions", and found that Arecibo played a crucial supporting role in addressing many others. Another key Astro2020 goal is to enhance community engagement with astronomy. Arecibo's Ángel Ramos Foundation Visitor Center "has been a model for this" with its outreach to hundreds of thousands of Puerto Ricans and visitors, its "promotion of demographic diversity in STEM" and "its impact on post-secondary education." Arecibo's profound impact as inspiration to people around the world is clear. A small collection of personal tributes that convey this deep impact can be found [here](#).

It is clear that the loss of Arecibo's capabilities will significantly impact the ability of the U.S. planetary and astronomy communities to remain competitive in addressing our planetary defense needs as well as high-priority science questions. The loss is also a

major setback to the earliest-career scientists who have depended on this facility to launch their careers.

This has made the need for these funds to be allocated for a design study even more urgent. Please see the attachment for a summary of our key points and request, and thank you very much for your consideration.

Your salutation.