

Direct Testimony of Amber Imai-Hong

My name is Amber Imai-Hong. I was born in Hilo and raised in Kea`au on Hawai`i Island. I attended Kea`au Elementary and Middle School, then transferred to Waiakea High School in 2003 to participate in after school robotics and band. I graduated from the University of Hawaii at Manoa with a Bachelor of Science in Electrical Engineering with a specification in Electrophysics

I have had several internships including one at the Joint Astronomy Center when I was in high school and learned database programming in Perl. I wanted to work in the astronomy field, and was happy with the internship that was paid for by the Women in Technology Grant through the Hawaii Island Economic Development Board. I worked on a program that would parse scientific papers and journal articles that included data that was collected by one of JAC's telescopes, the James Clerk Maxwell Telescope or the United Kingdom Infrared Telescope, and store it in a database.

During the five and a half years that I was working on my undergraduate degree, I was in the Native Hawaiian Science and Engineering Mentorship Program, run by Joshua Ka`akua. The purpose of this program was to attract Native Hawaiian students to the STEM fields and keep them in it. One part of the program was the "Summer Bridge Program" which included working in UH College of Engineering labs on hands-on projects such as small satellites. I did not participate in this because I was interning with JAC, however, I did serve as a mentor for this program. They encouraged me to participate in the Akamai Workforce Initiative.

In 2008 I was an Akamai Intern at the Canada France Hawaii Telescope where I was part of the Observatory Automation Project (OAP) and I was in charge of initiating the Audio/Video section. I helped to set up the cameras and design the code to ensure the data needed is preserved. I presented the results of my work at a symposium in Hilo. I also participated in a mainland-based program "The Society for Advancement of Chicanos and Native Americans in Science" (SACNAS) to present the results of my research. I gave a scientific poster presentation on creating a database system to remotely monitor the functions at a telescope.

I had just graduated from high school when I first heard about the Thirty Meter Telescope project. Hawaii Island is my home, and I aspire to work at one of the observatories on Maunakea that are the leaders in their field. I have always been a supporter of TMT because I want more Science, Technology, Engineering, and Math (STEM) opportunities on Hawaii Island. This is why I focused my studies around optics and instrumentation. I tried to find optical engineering courses, and did as much project work as I could to gain the needed experience for the instrumentation engineer position.

I have been part of various small satellite teams at UH Manoa since 2007. I was a part of the student team run by Dr. Wayne Shiroma for three and a half years. After the completion of the NanoSat 6 competition, I joined the Hawaii Space Flight Lab and started working on their first satellite, HiakaSat. While working on this project, I designed the support system for the primary payload called the Super Compact Hyperspectral Imager (SUCHI), and lead subsystem and system level integration and testing.

HiakaSat launched from the Pacific Missile Range Facility at Barking Sands, Kauai on the Super Strypi rocket on November 3, 2015, however due to issues with the rocket, it did not get to orbit. I work as an avionics engineer at HSFL currently.

Mauna a Wakea

My great grandfather Kahihikolo was from Ni'ihau and raised his family in Keaukaha. My father grew up on Hawaii Island. My dad took me to Maunakea, to the visitor station to look at the skies. Every year, we would watch the Perseid meteor shower from the dark skies of Maunakea. I was so small then, and the universe was so vast! It reminded me of how small the challenges I faced really were. My father lost his mother at a very young age and felt there was a connection to his family, when observing the stars. He spoke of navigation and Native Hawaiians ability to navigate without instruments. He told me the legends of the constellations and their Hawaiian names. He felt that learning about the universe was a way to honor our Native Hawaiian heritage. I feel that TMT both honors the heritage of our ancestors and provides a path for future generations of scientists and engineers to make amazing discoveries in the classroom and the science field. My ohana has taught me that our ancestors took what they needed from the land respectfully; they efficiently used their resources to protect our island home. I feel that TMT has embraced this by conducting the EIS, listening to the concerns of the community for the past eight years, and through The Hawaii Island New Knowledge (THINK) Fund.