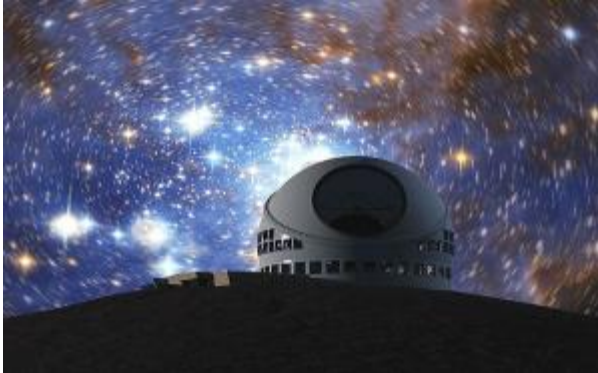


Local News

New dawn for Mauna Kea



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This artist's rendering shows the proposed Thirty Meter Telescope on Mauna Kea. A consortium of U.S. and Canadian universities on Tuesday announced it has decided to build the world's largest telescope on Mauna Kea. The other candidate site was Cerro Armazones, a remote mountain in Chile's Atacama Desert. - Tmt Observatory Corp.

'Most advanced telescope ever' will be constructed on the Big Isle

by Peter Sur

Tribune-Herald Staff Writer

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In the end, the world's most advanced telescope will be built on the mountain with the world's best view of the universe.

Following a two-day meeting, in a decision anticipated for years, the executive board of the Thirty Meter Telescope Corp. decided by consensus on Tuesday to locate their observatory on the north slope of Mauna Kea, several hundred feet below the summit.

"The TMT will be the most capable and advanced telescope ever constructed," said Henry Yang, TMT chairman and chancellor of the University of California at Santa Barbara. "When completed in 2018, the TMT will enable astronomers to detect and study light from the earliest stars and galaxies, analyze the formation of planets around nearby stars, and test many of the fundamental laws of physics."

Yang and other board members made the announcement in a telephone conference with reporters.

"The board expresses a strong commitment to respect the long history and cultural significance of

Mauna Kea to the Hawaiian people," Yang said.

Yang said there was no overriding reason the board chose Hawaii, and that it took into account "all available information before making its decision." The other candidate site was Cerro Armazones, a remote mountain in Chile's Atacama Desert.

"We have two outstanding, excellent sites, and with all the factors we weighed together ... we finally came up with some consensus. So we're very glad that we have chosen Mauna Kea. And the factors were so many it's hard to sort it out."

During the closed-door meeting, board members waded through a tangle of scientific, cultural, political and legal considerations.

They considered the long-term studies of each site's atmospheric clarity, darkness, temperature, humidity and stability, all of which will affect the final observation. They looked at the benefits of building the telescope in the northern or southern hemisphere.

They may have also discussed the cultural significance of Mauna Kea, the requirements of the Mauna Kea Comprehensive Management Plan, and the all-out effort by both governments to secure the billion-dollar project.

"The Comprehensive Management Plan was accepted by the (Board) of Land and Natural Resources," Yang said. "The TMT is fully committed and we will abide by all these recommendations."

"Taken together, the board is confident that it made the right decision at this time," he said.

Richard Ellis, a TMT board member and an astronomy professor at the California Institute of Technology, said that Mauna Kea has better viewing conditions.

"Mauna Kea ... is the higher site. It is actually drier. And the average temperature on the summit of Mauna Kea fluctuates less from day to day and through the year and the nighttime and daytime cycle than on the Chilean site.

"Also the atmospheric quality of the site, particularly the level of turbulence above the telescope, is preferential to the site in Chile. So in many ways the Mauna Kea site has unique characteristics."

Ellis did say Cerro Armazones is also an "extraordinary" site.

"But on balance, taking everything into consideration and noting that a lot of the astronomy that we expect to do from Mauna Kea will be at infrared wavelengths where a dry atmosphere and uniform temperatures are very advantageous ... made us confident that we could make great discoveries from Mauna Kea."

Ellis said the economic benefit to the Big Island was not a factor in the decision to locate the TMT in Hawaii, because "these considerations were equally balanced between the two options."

Yang said the TMT has completed its \$77 million development design phase and has more than \$300 million pledged for telescope construction. While this leaves the telescope hundreds of millions of dollars short of full funding, "with the site selection behind us, we are confident that the remaining funds will be secured."