

August 10, 2008

Giant telescope eyes site on Mauna Kea

Inouye proposes scholarships for Native Hawaiians as mitigation measure for \$1B project on Mauna Kea

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HILO, Hawai'i — U.S. Sen. Daniel K. Inouye is pressing to have a huge new telescope project built on Mauna Kea that is almost certain to be controversial among Native Hawaiians. But he is also proposing steps such as scholarships for Hawaiian students as part of an initiative to garner public support for the project.

The proposed \$1 billion Thirty-Meter Telescope is considered by some to be critical to maintaining Hawai'i's status as a world-class hub for high-tech research and development in astronomy. Inouye echoed that view in a May 8 letter to University of Hawai'i President David McClain.

The loss of the TMT project to a competing site in Chile "would not bode well for us as a nation, and could very well signal an end to any major astronomy investment on American soil," Inouye wrote in the letter.

TMT Observatory Corp. — a partnership between the University of California, California Institute of Technology and an organization of Canadian universities — selected Mauna Kea and Cerro Armazones in Chile as the two potential locations for the telescope it hopes to build by 2018.

A consultant report last year on the risks of building TMT on Mauna Kea warned the project "must run a gauntlet" of possible challenges, including some that would be "potential showstoppers." That report by The Keystone Center also noted that "it would seem likely that TMT will be a magnet for litigation" if the Hawai'i site is selected.

Mauna Kea is regarded as sacred to Hawaiians, and legal challenges by environmental and Hawaiian groups helped scuttle plans last year for a \$50 million addition to the W.M. Keck Observatory, known as the Outriggers project. A lawsuit in connection with Outriggers is still being fought on appeal a year after NASA withdrew funding for the project.

The TMT is far larger and more ambitious than the Outriggers project. Critics contend the next-generation telescope will be larger than all of the other telescopes on Mauna Kea combined, although TMT board of directors member Michael Bolte said that is incorrect.

A report in Wired technology magazine in 2005 said the new telescope would be housed in a structure the size of a football stadium. Sandra Dawson, site manager for the TMT, said the actual footprint of the structure to house the telescope and support buildings would be about two acres on the northern plateau below the summit, making it most visible from Waimea.

initial discussions

In his letter to McClain, Inouye explained he has met with the chairman and vice chairman of the

committee that will decide whether the TMT will be built on Mauna Kea or at an alternative site in Chile. Inouye said the committee members "expressed their commitment to work with the Big Island community to hopefully enhance educational opportunities."

Inouye said that meeting included UH-Hilo Chancellor Rose Tseng and Hawai'i Community College Chancellor Rockne Freitas, and "as I understand it, preliminary discussions about a possible mitigation measure are under way involving both the Native Hawaiian languages leadership at the University of Hawai'i at Hilo and the Hawai'i Community College."

"A simple over-arching mitigation measure could be that Native Hawaiians be provided scholarships to attend school at either campus," Inouye wrote.

Kealoha Pisciotta, president of an organization of cultural practitioners on Mauna Kea called Mauna Kea Anaina Hou, said she supports more scholarships for all students, but said scholarships won't change the impact the project would have on Mauna Kea.

The 13,796-foot summit of Mauna Kea is considered sacred to Hawaiians, and according to Hawaiian legend is the meeting place of the sky god Wakea and the Earth mother Papa, the parents of the first ancestor of the Hawaiian people. Pisciotta and other Hawaiians contend further development on Mauna Kea amounts to desecration of sacred land.

"The problem is in this case it is being directed for Hawaiian students and Hawaiian programs," Pisciotta said of Inouye's scholarship proposal. "I don't know a word for it, but essentially pressuring people who are in need, such as the Hawaiian language program or the Hawaiian studies program, is really unsavory."

"They're forcing them to make a decision between education and desecration, and that's not proper."

scholarship offers

Jennifer Sabas, Inouye's Hawai'i chief of staff, said the proposal for scholarships for Hawaiians for both Hawaiian studies and study in other fields was based on Inouye's idea that something positive for local families should flow from the project. It was aimed at Hawaiians because of the large Hawaiian population on the island, and was meant to offer them opportunities, not to pacify opposition to the project, Sabas said.

"Wouldn't it be nice if 10 years, when a local family or a Hawaiian family looks up at Mauna Kea, they can say, 'My kid is a teacher,' or 'My kid is a carpenter,' or 'My kid is an astronomer, we benefited from what is up on the mountain,' " she said. "The only way you do that is investing in education and making that long-term commitment."

An alternative to building the TMT at a new site on Mauna Kea would be to replace one of the dozen existing observatories on the mountain so the new development does not alter the mountain itself, said Pisciotta, a former employee of the James Clerk Maxwell Telescope on Mauna Kea. She opposes any expansion of the footprint of the observatories on Mauna Kea.

Mauna Kea is also home to rare plant and insect species, and the Sierra Club's Mauna Kea Issues Committee Co-chair Nelson Ho said no one knows the "carrying capacity" of the mountain, or the point at which the development overwhelms the natural resources there.

"I think the senator is ignoring a lot of widespread sentiment that Big Islanders don't want more telescopes on the mountain, let alone the TMT," Ho said. "It's a huge monstrosity at a time when

there are still too many unresolved issues on the table."

eis sought

The state must first develop a comprehensive management plan for the mountain, establish its carrying capacity and decide who controls it, Ho said.

The meeting Inouye had with two members of the TMT — board chairman Henry Yang, who is chancellor of the University of California at Santa Barbara, and vice chair Jean-Lou Chameau, who is president of the California Institute of Technology — was an effort to pressure them into picking Mauna Kea, Ho said.

Sabas, Inouye's chief of staff, said Yang and Chameau asked to meet with Inouye.

She said it was "not at all correct" to interpret the meeting as Inouye attempting to pressure them to bring the project to the Big Island. She said TMT already has decided to delay site selection until 2009, and "I think all he was asking of them would be to at least allow the (environmental impact statement) process to go forward in Hawai'i before making a decision."

"I think we'd like to see a process go forward, and really if at the end of the day the community feels that on balance it's just not something they could accept...everybody could accept that," Sabas said.

The goal of the TMT is to build an "exceptionally powerful" telescope that would have a synergy with other planned observatories such as the planned James Webb Space Telescope. The TMT is to be a scientific instrument that can answer "the new questions that will arise during the following 30 years," according to material from the project.

TMT initially had planned to select its preferred site in mid-2008, but TMT's Dawson now says that decision will be delayed until June 2009. By then the draft environmental impact statement for Mauna Kea should be finished, and information from that document will help the site selection committee to make its choice, Dawson said.

Chile moving ahead

TMT has nearly completed an environmental impact statement for the proposed site in Chile, and has awarded a contract to Parsons Brinckerhoff Inc. in Honolulu to perform the environmental report for Mauna Kea, Dawson said.

TMT board member Bolte said engineers are fitting larger telescopes into smaller domes, so the height of the TMT should not be dramatically different from the height of the Keck Observatory domes. He said the TMT dome will be about 100 feet tall.

The project has been moving very slowly in Hawai'i, he said. "We have been trying to find our way through in a way that people could embrace astronomy on Mauna Kea, and figure out a way to make it not incompatible with the sacredness of the mountain," he said.

One thing that helps is providing benefits to nonastronomers including Hawaiians, he said, "because, after all, we're borrowing this magnificent place up there to do astronomy."