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# Minutes Regular Meeting

Mauna Kea Management Board Monday, October 3, 2005

University of Hawai'i at Hilo Campus Center Room 306 200 W. Kawili Street Hilo, Hawai'i 96720

**Attending** 

**MKMB:** Chair Rob Pacheco, 1<sup>st</sup> Vice Chair Barry Taniguchi, 2<sup>nd</sup> Vice Chair/Secretary Jim Kennedy, Patricia

Bergin, Arthur Hoke, Ron Terry, Harry Yada

Kahu Kū Mauna: Hannah Springer

**OMKM:** Arnold Hiura, Stephanie Nagata, and William Stormont

Others: Jolynn Akiu-Yap, Doug Arnott, Jim Bell, Cory Harden, Reynolds Kamakawiwoole, Wendy Light,

Robert McLaren, Mike Maberry, Ron Nagata, Lew Schwenck, Doug Simons, and Debbie Ward

#### I. CALL TO ORDER

Chair Rob Pacheco called the Mauna Kea Management Board (MKMB) meeting to order on October 3, 2005, at 10:05 a.m.

#### II. APPROVAL OF MINUTES

It was moved by Arthur Hoke and seconded by Harry Yada that the minutes of the August 31, 2005, meeting of the MKMB be accepted. The motion was carried unanimously.

#### III. DIRECTOR'S REPORT

## A. Follow-Up of Resource Initiatives

Wekiu Bug Survey Work

Director Stormont gave an update on Bishop Museum's wēkiu bug survey work. One of the goals of the surveys is to look at the extent of the range of the bug. They have been looking at pu'u in outlying areas and pu'u that were not surveyed previously or during the recent past.

Populations were observed on Pu'u Lilinoe, Pu'u Poli'ahu and Pu'u Pohaku. The latter is part of the Department of Land and Natural Resources (DLNR) Natural Area Reserve. Preliminary survey results show there are populations on some pu'u that had not been previously surveyed.

A glacial geologist from the University of Washington is working with the Bishop Museum. His preliminary analysis indicates bug habitat is limited to land that stuck up above the glaciers in the past.

#### Wēkiu Bug Life History Research

Dr. Dan Rubinoff at UH Manoa is the principal investigator of a four-year study on the life history of the bug. The research will involve gathering information to look at a number of aspects of the bug including lifespan, reproductive potential, foraging behavior, seasonal and daily habitat requirements, and other things.

This work is being funded jointly by the Office and the Mauna Kea observatories.

## Archeological Survey

The Office has contracted Pacific Consulting Services to conduct an archeological survey of the Astronomy Precinct and adjoining areas. The team is led by Dr. Pat McCoy, who recently retired from the State Historic Preservation Division. Previously he worked at the Bishop Museum which did some of the very early surveys in the mid-1970s in the Adze Quarry and other areas of Mauna Kea.

The objectives of the work was to conduct a systematic examination of the area, record new sites, and revisit previously found sites to note changes and record additional information. A preliminary report indicates the observation of new sites and disturbances to some of the previously found sites.

This survey work was funded by the Office and the Mauna Kea observatories.

## B. Follow-up Audit of the Mauna Kea Science Reserve

The management audit that began in late July is still ongoing. The office continues to provide information as requested by the auditors. Their draft report will be out sometime in December and will be submitted to the legislature. Director Stormont thanked Associate Director Nagata for providing the auditors with the requested information.

#### C. Mauna Kea Users' Group Annual Meeting

The annual Mauna Kea Users' Group meeting was held in Kona on September 29<sup>th</sup> and 30<sup>th</sup>. Director Stormont thanked Rob Pacheco and Ed Stevens for attending. Observatory directors appreciate their presence there. It is a good indication of a desire to ensure that we understand what they are doing and an opportunity to interact.

### D. "Stars over Mauna Kea" Tabloid

The new Mauna Kea Astronomy tabloid came out in the Sunday, October 2, 2005, *Hawai`i Tribune-Herald*. A similar tabloid was printed two years ago. The effort, led by the Mauna Kea Observatory Outreach Committee, was to provide information about the observatories and how the astronomy enterprise is integrated within our community.

## IV. COMMITTEE REPORTS

#### A. Kahu Kū Mauna

Hannah Springer reported on behalf of Ed Stevens.

# Kahu Kū Mauna Council Subcommittee

At the Kahu Kū Mauna meeting held on September 27, 2005, a subcommittee was formed and approved. The subcommittee is comprised of Hannah Kihalani Springer, Ed Stevens, and Mikahala Roy. An assessment of their activities will be reviewed by the Council at their January meeting.

### Toilet Facilities on the Summit

The Council discussed a proposal by OMKM to add toilet facilities on the summit. At this time, the Council suggests increasing the frequency of cleaning of existing facilities.

### Cultural Inventory of the Mauna Kea Science Reserve

Earlier, the Council discussed and deliberated the merits of completing an archeological inventory of the Science Reserve. The Council voted in favor of the inventory. There is no further action required of the Council on this matter, and it is recommended that the Office move forward with the project. The Council requests that they be kept in the communications loop.

### January Retreat

The Council requests the Office approve an overnight workshop/retreat on Saturday and Sunday, January 21 - 22, 2006. This request also includes the handling of arrangements and logistics by the Office.

#### Next Council Meeting

The next meeting will be on Monday, October 17, 2005, in Hilo. Arrangements are being made to meet with Vicky Holt-Takamine and Kawika McKeague and Jeff Overton from Group 70. The purpose of this meeting is to discuss the upcoming Pan-STARRS proposal.

#### Discussion

Chair Pacheco asked whether the Council was suggesting that the toilet facilities needed to be cleaned out more often. Ms. Springer replied yes, at least at the first pass of discussion on the subject. There was some concern about approving expansion and/or upgrade without an understanding of what was being contemplated. Some members of the Council were concerned about making permanent facilities and possibly having some of those facilities being underground resulting in more intrusions into the mountain. She imagines this will be discussed in greater length in January, but that was the majority wish as of the last meeting. Ms. Springer indicated this will likely be a lengthy discussion. In the meantime, as an interim strategy, the Council's recommendation is to increase pumping and maintenance.

Chair Pacheco stated the Council would also need to converse with Mauna Kea Support Services.

Director Stormont added the Office brought the idea to Kahu Kū Mauna. It is something that is contemplated in the Master Plan as a possible future development on the summit. As it was explained at the meeting, from time to time during foul weather, the portable toilets on the summit are demolished. The Office wanted feedback from the Council as one possibility for dealing with visitors to the summit.

#### V. NEW BUSINESS

(Chair Pacheco requested moving the New Business item before the Old Business.)

## A. Amendment to Gemini Observatory's Request to Install a Seeing Monitor

Director Stormont explained Gemini approached the Board earlier with a request to install a seeing monitor. Originally the seeing monitor was to be installed in the stairway of the observatory dome. They later requested to modify their proposal by changing the location of the monitor to the roof of the support building. The stairway location was deemed unsuitable due to potential harm to the instrument from falling ice. Gemini is now requesting permission to install a ladder on the side of the support building so they can access the seeing monitor on the rooftop.

The Board is being asked to review Gemini's request to amend their proposal to add an access ladder to their support building. The original project was previously deemed insignificant and subsequently approved by the Board. All conditions and mitigation measures previously imposed on the project would still apply. In addition, approval by this Board should be contingent on Gemini obtaining a Site Plan Approval from DLNR before it is allowed to proceed with the installation.

### Action

It was moved by Arthur Hoke and seconded by Barry Taniguchi to adopt OMKM's recommendation to approve Gemini Observatory's request. All previous conditions and mitigation measures would continue to apply. This approval is contingent on Gemini obtaining a Site Plan Approval from DLNR. The motion was carried by a majority vote of six. Jim Kennedy recused himself from voting on the motion.

#### Discussion

Ms. Springer stated Kahu Kū Mauna has no objections to the proposal. They are, however, concerned with the use of the term "insignificant." In their opinion all action on the mountain is of some significance. They understand it is part of the nomenclature of our operating practices.

Chair Pacheco took note of that adding the Board would love to entertain the use of another word.

### VI. OLD BUSINESS

# A. NASA/Keck Outrigger Telescopes Project Design Review

Director Stormont summarized the Outrigger Telescopes Project Review Progress Report which was distributed earlier to Board members. This progress report summarizes the procedures laid out in the Master Plan for review of major projects. The first meeting was the Pre-design meeting. This meeting discussed the concerns and issues that need to be addressed during the review process. It identified the various standards and design guidelines that need to be met based on the Master Plan.

The second meeting, Schematic Design, was the first look at the design features and the placement of the Outriggers. There was also discussion about whether concerns raised at the first meeting were addressed. The third meeting, Design Development, was a closer review and addressing of concerns and issues raised in previous meetings and whether specific guidelines and standards called for in the Master Plan were met.

It is now at the point where the Office and the Board have an opportunity to review the progress of the review to date. Members of the project review committee that are here today are Dr. Bob McLaren from the Institute for Astronomy (IfA); Jim Bell from Keck Observatory; Ron Nagata, a member of the Design Review Committee; and Arthur Hoke. Ed Stevens was also a part of the review process. At our last meeting, Associate Director Nagata distributed to the Board members a chart of what those specific design guidelines are, and this is an opportunity to review point by point whether the guidelines have been met.

Director Stormont stated he felt that the process addressed and met matters of concern. He asked the Board how they would like to proceed with the discussion.

Chair Pacheco reminded everyone that this is about the design review process and not the overall nature of the project.

### Discussion

Mr. Hoke noted that the Gemini report mentioned painting the new structure white to match what is already there. He stated that there was discussion about experimenting with other colors but wondered whether the astronomy community initiated studies on this subject.

Dr. McLaren replied in general a lot of attention is being given on this issue. It is an item that we are putting to all of the designs. In particular with Pan-STARRS, there will be a real effort to look at alternatives that make the enclosures less visible. In the case of the Outriggers, the base part will be colored to blend in with the local terrain and the enclosure will be white. It is technically superior to other available options and it also blends in fairly well with the 10-meter white domes that are already there.

Ron Terry requested to hear from Mr. Nagata about his perception of the design review process up to this stage.

M. Nagata stated he had hoped that he could have gotten a little more help in other areas of concerns. He stated he is an architect, but has some background on civil issues, so he was able to address some of the civil issues.

Many of the issues raised were related to the limits of the project and cross-sections. He felt the concerns were addressed. Technically speaking the building itself is a functional matter so he did not have much to say about it. One issue that was touched on was color. There was discussion on this and although other ideas were tossed around, it was decided that the globe will be white.

There was discussion about trying to blend in the lower portion and how that color would reflect depending on the material and light. Also how it would render itself from a distance. He did not know, but that is still to be experimented with. It was getting more and more technical and, being an architect, he may not know enough about some of the terms and more complicated issues.

Dr. Terry stated at one Design Review meeting that he attended Mr. Nagata had a lot of insightful comments. It seemed like he was on top of the process. Dr. Terry asked if Mr. Nagata had any suggestions or criticisms of this process in general. How could it be improved, or was it ok? What can we do next time?

Mr. Nagata thought the process starting from a general perspective and working down to the details is the way to do it. He felt that was how this process proceeded. We worked with a lot of issues and brought it down to particular points. However, when it started getting into the finer issues, he felt that is where they could use more technical expertise from other disciplines.

Chair Pacheco asked what effort was made to get others on the review team that could handle those types of technical issues. Director Stormont stated he was not aware the committee realized this was a concern, so the committee did not make much of an effort to pull other people in. Looking at what was called for in the design review process individuals were brought in that could address the various concerns, including Arthur Hoke from the Board and Ed Stevens from Kahu Kū Mauna. Director Stormont asked Mr. Nagata what were some of the technical questions he would have appreciated some help with.

Mr. Nagata replied that on the issue of color there was discussion on trying to blend the structures with the mountain. He did not know how a cinder color painted on concrete or painted on metal would present itself from a distance. The color may appear to be the same as the mountain at that particular point, but at a distance, he would not know how the effects of light on the color would present itself.

Director Stormont stated the dome will be white, but the ring wall will be painted in a color that closely matches the surrounding cinder and existing Keck buildings. Mr. Bell added there are some other structures that come up a few feet from the surface, and they will also be that same color.

Dr. Terry's impression was that the design review process worked in the sense it identified some problems, looked at the engineering constraints, and found a design that was best suited for the mountain. He was happy with it especially since it was sort of an ex post facto process. The project started before the Board was here and before there was a Design Review Committee.

Ms. Springer asked Dr. Terry, although it is not mentioned specifically in the Design Review process, did he think there would be a place for the Environment Committee or any of the other committees of the Mauna Kea Management Board to give input for future proposals.

Dr. Terry certainly thought so and Kahu Kū Mauna, of course, is integrally involved. It would also depend on the project. Some of them probably interact less closely with the natural environment than others, but this one in particular probably would have been a good venue for us. He did not know if the Environment Committee was around during that time. Did they have some input? Chair Pacheco stated he did not believe so and asked Debbie. Ward if she had any knowledge. Ms. Ward stated she was told that after it got to the Design Review process, then we would discuss it, but as far as she knows it was never discussed.

Chair Pacheco questioned if it is possible to have that input in the next phase of the review process or if we were beyond that. Director Stormont stated the next step is to have the construction drawings completed and reviewed by the Design Review Committee. He asked if the Board had any recommendations. Dr. Terry explained he was not willing to lead a charge of the Environment Committee on the design review process at this late stage unless there is an absolute demand for it. He was thinking more about future projects.

Ms. Springer asked if involvement by the committees would occur in the flow chart about where the Mauna Kea Management Board is placed. Dr. Terry answered yes. He and Associate Director Nagata talked about how things are going to flow and she is looking at involving committees more with some of the work of the Board. That way we can bring recommendations to the Board on matters of the environment similar to the way Kahu Kū Mauna handles issues.

Ms. Springer asked if a member of a committee, such as the Environment Committee, does not feel satisfied with the level of discussion at the committee level, is that individual allowed to make input either to the Chair of the committee or to this Management Board? What would be the appropriate recourse for a member who feels that either there has been a gap in meetings for one reason or another or they have a desire to make input into the process? Are we bound by our committees?

Dr. Terry thought any individual should be encouraged to send in comments on any aspect of what is occurring on Mauna Kea. It probably should go to Director Stormont. Chair Pacheco replied there is nothing specified. He thought it would be logical to talk to the chairperson of the committee. If that does not suffice, then go to the Office or come to the Board

Mr. Hoke stated when you look at the mountaintop from the Hilo side the visual impact is obvious. When you look at it from the other side, where Subaru should be visible, somehow it is not. If Subaru can manage to camouflage its building why can't the other observatories do it? That is how the discussion about color themes began. He does not know why Subaru is only visible at sunset, but if that can be done with all of them, that would be a near perfect situation. He is not sure how you would be able to reduce visibility by keeping it white, unless there is some other configuration of those domes that would allow them to be as reflective as Subaru.

Dr. Terry stated that Pan-STARRS is going to be experimenting with a lot of techniques. They are talking about louvers and changing colors and reflecting things away to make it as invisible as possible. He thinks once that standard is there, then we are going to expect that from every new scope and every refurbishment.

Mr. Hoke stated that is the point he is trying to make. As different approaches to visibility are developed they should be implemented on what exists now and not only apply to new construction.

Chair Pacheco asked for comments from the audience.

Reynolds Kamakawiwo'ole stated he was a member of Kahu Kū Mauna. Although there is a need for the top of the dome to be white, he believes the Armed Forces is a group that has knowledge about camouflaging.

Ms. Ward, a member of the Environment Committee, stated it is important for us to revisit the decision to build in an area that is habitat for an endemic species that is a candidate for listing for endangered species. Even though the building was altered and drawn back in, she thought realizing that wēkiu bug habitat would be impacted should lead to a reduction of one telescope. Especially since it has been determined that cumulative impact on the mountain has been adverse, significant, and substantial.

Barry Taniguchi interrupted asking Chair Pacheco if we are talking about the project or the Design Review. He thought we were going off the topic. Chair Pacheco agreed, but asked Ms. Ward to briefly sum it up. Where we are right now is making a decision regarding the design. The project itself is a separate process. It is outside this design review process that we have on the agenda right now.

Ms. Ward concluded saying that deciding to design something that will have negative impact to an endemic species that lives nowhere else on the earth has consequences. You are talking about moving ahead as if the design is okay. She did not want that to go unsaid.

Cory Harden stated she is also concerned about the environmental impacts. She is disturbed that even though we have just come off this environmental impact statement (EIS) which has documented severe impacts to the mountain and to Hawaiian cultural practices from the telescopes, that this design has gone ahead with no input from the Environmental Committee and that basically things are going along as usual.

Director Stormont stated with respect to the Master Plan, we are at the stage where the Office and the Management Board have an opportunity to review the progress of the design review process thus far. If the Board finds that it agrees with the Office's assessment that the standards and guidelines laid out in the Master Plan for review of major projects has been met, we seek the Board's approval. The next step would be to have the construction documents drawn up for review by the full Design Review Committee.

Subsequent to that, the entire package will be assembled and brought to both Kahu Kū Mauna and the Mauna Kea Management Board for their review and recommendation. The recommendation will go up through the University's approval process, and ultimately up to the Regents for their review and decision on the project.

### Action

It was moved by Arthur Hoke and seconded by Barry Taniguchi to adopt OMKM's recommendation that the Design Review process meets what is required in the Master Plan.

#### Discussion

Chair Pacheco stated he and perhaps the Board was uncomfortable about the review process and the overall plan process. Especially since they were integrally related. Is it possible to design a building up there so that they do not impact the mountain, or is there a better design that would minimize and mitigate the impacts on the mountain?

It seems at some point we need to think about the Master Plan process for future projects. As a Board member, he was not concerned about minute details such as electrical schematics or the layout of the structure or matters outside the larger issues. He felt that by the time the plans are drawn up the larger issues should already be dealt with.

Harry Yada stated he was voting yes on Mr. Hoke's motion. However, he felt the motion should be clarified that the Board's action is not intended to be an approval of the project, and a stipulation be added that the project as a whole, beyond the design review process, return to the Board for consideration and recommendations.

Mr. Hoke explained that was what he thought he was saying. He asked if he should amend it so that the motion includes that it is not an approval of the project but to certify the process as described in the Master Plan. His personal opinion is no more construction on the mountain. But that does not have anything to do with what the design review process is about. Chair Pacheco thought it was clear and did not feel it was necessary to add to the motion because we all understand that and it has been clearly stated. Mr. Yada stated he was concerned about how the project as a whole returns to this Board for its consideration.

Chair Pacheco stated that is something we need to work with the Office.

Mr. Kamakawiwo'ole asked what is this review compared to the project itself and where does it stand? Chair Pacheco explained this Board's decision will be a recommendation to the President. This is not a recommendation that the project should go forward. As a body, we are making a decision to recommend or not, and that is it. This is not a legally binding decision.

Dr. Terry stated he would like to call for the question.

Chair Pacheco acknowledged stating it has been motioned and seconded. All were in favor and no one opposed.

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There being no further business, Chair Pacheco adjourned the regular meeting at 11:09 a.m.

Respectfully submitted:							
Signed by James Kennedy Dr. James Kennedy, Secretary, MKMB	8/3/06 Date						