Minutes
Regular Meeting

Mauna Kea Management Board
Tuesday, September 16, 2008

Kukahau'ula, Room 131
640 N. A'ohoku Place
Hilo, Hawai‘i 96720

Attending
MKMB: Chair Barry Taniguchi, 2nd Vice Chair/Secretary Ron Terry, John Cross, Lisa Hadway, Herring Kalua, and Christian Veillet

Kahu Kū Mauna: Ed Stevens

OMKM: Stephanie Nagata and Dawn Pamarang

Others: Doug Arnott, Chas Cavedoni, Gary Davis, Cory Harden, Masa Hayashi, Saeko Hayashi, Nelson Ho, Arthur Hoke, Jim Kennedy, Ron Koehler, Bruce Matsui, John Maute, Rima Rocha, Helen Rogers, Bill Stormont, Rose Tseng, Deborah Ward, and Harry Yada

I. CALL TO ORDER
Chair Taniguchi called the meeting of the Mauna Kea Management Board (MKMB) to order at 9:15 a.m.

II. APPROVAL OF MINUTES
It was moved by Lisa Hadway and seconded by Christian Veillet that the minutes of the July 24, 2008, meeting of the MKMB be accepted. The motion was carried unanimously.

III. EXECUTIVE SESSION
It was moved by John Cross and seconded by Herring Kalua to enter into executive session to 1) approve the minutes of the last executive session held on May 13, 2008; and 2) to consult with the Board’s attorney on issues regarding the Mauna Kea Management Board’s bylaws. The motion was carried unanimously.

The public meeting reconvened at 10:05 a.m.

IV. INTERIM DIRECTOR'S REPORT
A. University of Hawai‘i 24" Telescope Renovation Project
Construction is near completion and the project will be going through its final inspection. There have been no problems with this project. The contractors have complied with the conditions that were imposed on the project.

B. University of Hawai‘i (UH) 88' Telescope All-Sky Camera Project Update
UH 88” has withdrawn its informal request to add a 7-foot tower to protect its camera that is now installed on the roof of the lunch room.

C. Association of Hawaiian Civic Clubs Annual Convention
The Association of Hawaiian Civic Clubs will be holding its annual convention in October on Kauai. They will be introducing two resolutions in support of OMKM’s efforts to develop: 1) the Comprehensive Management Plan
(CMP), and 2) seeing legislative authority to promulgate administrative rulemaking authority. The Office and Ku’iwalu will be presenting a workshop on the CMP.

D. Legislature
The Office has been working with legal counsel on drafting legislation regarding rulemaking authority. We will be asking the Legislature again for this authority. Without rulemaking authority it will be difficult for OMKM to fully enforce or implement the CMP. The UH’s legislative package will be presented to the Board of Regents on Friday, September 19, 2008.

V. COMMITTEE REPORTS
A. Kahu Kū Mauna Council (KKMC)
The Council is facing a similar situation as the MKMB in which the second terms of the remaining original members are expiring. The Council realizes that OMKM, MKMB, and the Council will be faced with some critical matters and the Council will need the wisdom and guidance of the remaining original members. The Council reviewed their guidelines and is requesting two major changes regarding: 1) the holdover of Council members; and 2) the removal of Council members for cause.

Recommendation
Interim Director Nagata explained the MKMB approved the original guidelines in 2000 and is the body that needs to approve the revised guidelines. OMKM recommends adopting the revised Guidelines.

Action
It was moved by Ron Terry and seconded by Herring Kalua to accept OMKM’s recommendation to adopt the revised Kahu Kū Mauna Council Guidelines. The motion was carried unanimously.

VI. OLD BUSINESS
A. Comprehensive Management Plan (CMP)
Interim Director Nagata gave an update on the CMP for Dawn Chang.

- A legal opinion from the Attorney General’s (AG) office regarding whether the CMP triggers Chapter 343 is still pending. A Land Board briefing will be requested after hearing from AG.
- The Institute for Astronomy (IfA) submitted responses from all the observatories regarding their plans for decommissioning.
- Ongoing discussions continue as part of the community outreach process.
- Intend to convene three public meetings in October 2008.
- CMP Schedule
  September:
  - Prepare management recommendations based upon the Cultural Resources Management Plan (CRMP) and Natural Resources Management Plan (NRMP) for public review and comment.
  October:
  - Continue to engage in community outreach to review and comment on the management recommendations.
  - Presentation to the Association of Hawaiian Civic Clubs on Kauai
  November/December:
  - Prepare CMP
  December:
  - Submit CMP to MKMB for review
  January:
  - Submit a draft of the CMP to DLNR for their review

B. Cooperative Agreement between the OMKM and the Natural Area Reserves (NAR)
Lisa Hadway explained that in 2003 a meeting with the Office, Kahu Kū Mauna and NAR staff determined that it would be beneficial to enter into some form of cooperative agreement or memorandum of understanding. It’s taken five years, but after working with OMKM’s interim director a draft of a cooperative agreement was developed. The draft was reviewed by KKMC at their September 10th meeting. Ed Stevens stated Council fully supports this Agreement.
The purpose of this Cooperative Agreement is to provide a framework of cooperation and coordinated action for the Mauna Kea Ice Age Natural Area Reserve. The draft of the Agreement was submitted to the NAR Commission which approved it in concept at their September 15, 2008 meeting. The Commission unanimously agreed to the general terms presented in the document and recommended approval by the Board of Land and Natural Resources (BLNR).

**Recommendation**
OMKM recommends approval of the draft Cooperative Agreement in general terms, recognizing that it will go through the BLNR, and UH Counsel, and finally to the Attorney General's office for final review.

**Action**
It was moved by Lisa Hadway and seconded by Herring Kalua to accept OMKM’s recommendation to approve the agreement in general terms. The motion was carried unanimously.

**Discussion**
Ron Terry asked if Ms. Hadway felt this Agreement would help to implement the recommendations of the CMP. Ms Hadway replied they work with a number of watershed partnerships where they pool resources. For example, eventually they will have a Cultural Resources Management Plan similar to the Science Reserve. Hopefully, the rangers will be able to help with monitoring the NAR. If, for example, some new invasive weed showed up on the mountain, they might be able to contribute resources to manage that across boundaries. The possibilities are limitless. What this document enables us to do is to formally recognize the relationship between NAR and OMKM.

Chair Taniguchi added the preparation of the agreement was never pursued until very recently. It is an important document the Board consistently asked for in the past, but it was never executed.

**C. Mauna Kea Support Services (MKSS) Transfer**
Members of the sub-committee met to discuss the transfer. Members included Lisa Hadway, Jim Kennedy, Ron Koehler, Rob Pacheco, Christian Veillet, and Harry Yada.

The following points were considered by the committee:
- The Master Plan called for a timely transfer of at least some of the MKSS responsibilities to OMKM. The transfer will at last recognize and address concerns from the community.
- The transfer is anticipated to be beneficial to all those involved in tending Mauna Kea; the services provided by MKSS could eventually expand beyond their current scope.
- OMKM’s mission is to take care of Mauna Kea in a holistic way. Having MKSS under its umbrella is a significant step in establishing OMKM in this role.
- The services rendered very efficiently by MKSS are key to the operation of the observatories. It is important to ensure that the transfer is as smooth as possible and that the continuity of the services is guaranteed.

**Recommendation**
The committee recommends that the transfer of MKSS from IfA’s supervision to OMKM be recommended to UH System. In order to maintain the efficiency of the current MKSS structure, the committee considers that transferring the MKOSS in its entirety is preferable to a partial transfer.

The committee encourages the Board to offer to the directors of the Mauna Kea observatories the opportunity to propose a set of accompanying measures they think appropriate to ensure a smooth transfer and continuity of services currently provided by MKSS, which are paid for by the observatories (ranger program aside) and are essential to their day-to-day operations.

**Action**
It was moved by Lisa Hadway and seconded by Herring Kalua to recommend to the UH System the transfer of MKSS in its entirety from the IfA to OMKM. Together with this recommendation is the development of a working relationship with all of the directors to continue the function of the Oversight Committee. The motion was carried unanimously.
Discussion
Chair Taniguchi commented the purpose of this transfer is to allow OMKM to take the leadership role in the management of Mauna Kea, not to sever the ties with IfA. IfA will continue to have input, but they will no longer be the lead. Interim Director Nagata added there needs to be one management entity on the mountain as opposed to a several different groups.

Chair Taniguchi stated this issue was brought up in July 2003, so this is another five-year project that is finally being addressed. In the last few months we have done a lot. He thanked both the Board members and staff.

D. Mauna Kea Management Board Bylaws
Chair Taniguchi recused himself and 2nd Vice Chair Ron Terry led the discussion.

Interim Director Nagata stated the Board, Kahu Kū Mauna, and the Office were facing some major challenges—the CMP, potential TMT project, and the potential Pan-STARRS project. Review of these projects requires board members who have a good, solid background of OMKM’s and the Board’s roles and responsibilities as well as a thorough knowledge and understanding of the issues. The Board has reached a point where there is only one remaining Board member with the institutional knowledge and experience. The Chancellor was concerned about losing this institutional knowledge at a time when the Board will be reviewing matters that will impact the future of the Office. For these reasons it is requested that a change be made to the bylaws to allow for longer terms.

Ms. Hadway recommended changing the total term from 8 years to 12 years.

Action
It was moved by Lisa Hadway and seconded by Herring Kalua to adopt the proposed changes to the MKMB bylaws. The motion was carried unanimously.

VII. NEW BUSINESS
A. Minor Project Classification for IfA’s Request to Replace the Existing Canada-France-Hawaii Telescope (CFHT) Weather Tower with a Combined Atmospheric Monitor and Weather Station
The IfA, on behalf of CFHT and Keck Observatory, is proposing to remove the existing weather tower between the CFHT and Gemini observatories and replace it with a new one that would house an atmospheric monitor and weather station.

IfA proposes to replace the existing 40-foot high tower with 31-foot tower. The replacement tower will have a platform that will house instruments that measure atmospheric turbulence and image quality, as well as traditional weather instruments. The tower will be placed on the existing concrete slab. There will be no excavation or ground-disturbing activities.

Recommendation
Because this is going to be a replacement of an existing structure with a new one, OMKM is requesting that this project be classified a Minor Project and submit this project for additional discussions with the applicant to consider possible alternatives to the design.

OMKM is proposing that MKMB recommend to the President that this project be classified a Minor Project. MKMB’s recommendation that the project be classified a Minor Project does not mean nor imply that MKMB is recommending approval of the project. Classifying a project initiates the review process and based on the results of the review, the MKMB will make a recommendation to approve or not approve a project.

Action
It was moved by Herring Kalua and seconded by Ron Terry to accept OMKM’s recommendation to classify this project a Minor Project thus initiating the Master Plan project review process. The motion was carried unanimously. Christian Veillet recused himself from voting.

Discussions
Dr. Terry inquired if this was discussed with DLNR’s Office of Conservation and Coastal Lands. Interim Director replied no because the review process has not begun and we do not know exactly what this will look like. It could change from the original proposal.
Christian Veillet explained the development of this proposal was a common effort among the observatories. It is not specific to CFHT, even though it will replace the CFHT weather tower. The data will be used by several of the observatories on the mountain.

B. Gemini Observatory’s Request to Install an Above Ground Diesel Storage Tank
Gemini Observatory is seeking approval to install an above ground diesel storage tank next to its support building. The purpose is to increase the runtime of their emergency generator.

**Background**

- The current storage tank, which is located inside the support building, has only a 180-gallon capacity tank. This current capacity can only provide about 16 hours of emergency runtime.

- Gemini needs to increase the run time of its emergency generator from 16 to 72 hours to allow and prepare for emergencies. In the event electricity is shut off for over 3-4 days and personnel cannot access their facility, it requires up to two weeks for some instruments to be brought back into operation. Following the earthquake in 2006 Gemini lost power for more then 16 hrs and some of their science instruments lost cooling and it took two weeks to restart the instruments. In addition the summit experiences bad winter storms a few times a year that prevents access to the facility.

**Kahu Kū Mauna Council**

Kahu Kū Mauna Council reviewed the project and has the following concerns:

1. What are the safety measures for the pipes? For example, if there were another earthquake, what would prevent a spill or leak from the pipes if they should be damaged in the quake? Similarly, will there be insulation on the pipes to prevent the pipes from freezing and breaking during the winter season? What protocols do they have to mitigate any spills?

2. They are concerned about the large quantity (1,000 gallons) of diesel that will be transported up the mountain and the potential for spills along the way.

3. The Council would like to know how often the generator is used for emergency purposes and the potential that the generator might be used for more than three days.

**Recommendation**

Based on these concerns, OMKM is recommending that MKMB classify this as a Minor Project and subject it to additional review. OMKM is also requesting that Gemini to consider other alternatives, do an analysis of the number of times their facility has been closed for more than three days, how often they refuel their current diesel tank, and how many gallons of diesel they refuel each time. The additional information will be considered during the review process.

**Action**

It was moved by Herring Kalua and seconded by Lisa Hadway to accept OMKM’s recommendation and classify this a Minor Project subject to additional review; request Gemini consider mitigation measures, as well as alternatives. The motion was carried unanimously.

**Discussions**

Mr. Stevens asked why Gemini needs 72 hours of run time. A 500-gallon tank, although still a concern, should give about 55 hours of run time. Is this going to set a precedent? Will there be more of these? What assurances that safety measures are adequate? He did not see any provisions as to how the plumbing can be protected from accidental damage. To have a 1,000- or 500-gallon tank spill on the summit would be unthinkable. More information is needed to mitigate these concerns. Mr. Stevens also asked if this unit meets county code.

Dr. Terry asked if an independent engineering study would be useful. Mr. Stevens did not think a study would be useful. The issue was the need for such a large capacity storage tank. Arthur Hoke observed astronomy is always looking at what is in their best interest and we are looking at what is in the mountain's best interest. Observatories need to take an approach from the perspective of what is in the best interest of the mountain.

Ms. Hadway had similar concerns as Kahu Kū Mauna. Several concerns were raised when this proposal was discussed with a Department of Forestry and Wildlife operations person, including: 1) how fast would they go...
through a 1,000 gallons; 2) will the diesel be sitting in the tank for a long period of time, if so condensation can
occur; 3) algae that can grow in diesel. Further they will probably need to pump the tank out raising the potential
of spills and there is the issue of the truck filled with diesel driving up and down the mountain. In addition to
mitigation measures they should look at energy alternatives, e.g., liquid propane, wind or solar.

Herring Kalua felt procedures have been modernized in building these types of tanks. There are measures to
prevent spills and fires. He also stated drivers of diesel tanks are highly qualified. It was suggested that Gemini
address the various concerns expressed over this project. The tank will need to be inspected often to ensure there
are no safety violations. He is not opposed to this proposal, provided Gemini addresses the concerns.

Nelson Ho commented that the discussion should also include the total volume on the summit and the need to
check in with the Fire Department and County Department of Public Works. He also wanted the Environment
Committee to review this proposal. He was in favor of looking at alternatives. Dr. Terry agreed that this should
be reviewed by the Environment Committee

Mr. Hoke suggested consulting with Hawaii Electric Light Company regarding the possibility of some kind of
backup system at a lower elevation that could be used by everybody and get rid of the diesel on the summit. Harry
Yada suggested coordinating a refueling schedule to reduce the number of trips up to the mountain.

Chaz Cavedoni, an engineer at Gemini appreciated everyone’s comments. Gemini will go back and consider
various options, possible mitigations and, possible amendments to the proposal.

C. Major Project Classification for the Thirty-Meter Telescope (TMT) Project
This item of the agenda was moved up and at 10:30 a.m. Dr. Chameau, President of Caltech; and Dr. Yang,
Chairman of the Board for the TMT Project and Chancellor of University of California Santa Barbara joined the
meeting via videoconference.

Background
TMT has narrowed their choices to Hawaii and Chile as two potential sites for their telescope project. They have
not yet made their decision on whether to come to Hawaii or Chile. In order for them to make their decision, they
need to do an environmental study here in Hawaii. They have nearly completed their environmental assessment
for Chile and are now preparing their environmental assessment for Hawaii.

Part of that process is that they need to come up with a design to assess the impact of their telescope. An
informational meeting was held with the TMT design group and members of OMKM, MKMB, and Kahu Kū
Mauna to learn about TMT’s description of their project and to give us an idea of their scope so that we could
bring it to the Board to begin a project review process.

Interim Director Nagata emphasized TMT has not made a decision to come to Hawaii. This is part of the process
in their decision-making, and it will also help the Office and the MKMB in their review of this project.

Project Scope
The TMT project indicated it will need space for the following:

- Telescope: Interior radius of the dome facility is 29 meters
- Mirror coating facility: to clean and recoat the mirror segments
- Lab & shop space: to house the computer room, engineering and electronics lab, mechanical
  shop, and shipping and receiving areas
- Administration: to house a lobby, offices, control room, lunchroom
- Visitor/Public access: to house a visitor lobby and restroom

It is anticipated the facilities will be housed in three buildings: a telescope enclosure, summit facility, and utility
building. Infrastructure requirements include a road, parking/construction staging area, utility hookups and
mechanical, and equipment access around the telescope building.

Project Site
Following the Master Plan guide for the siting of the next generation large telescope, the TMT is looking at the
northern plateau as a potential site. Being that this is a vast area, four sites were identified as potential sites.
These sites have been surveyed and do not include any historic archaeological sites.
OMKM believes this project falls under the Major Project classification. Similar to the process for Minor Projects, the Master Plan states the MKMB will make an initial determination of the Major/Minor Project classification for the President who makes the final determination. Major Projects must go through a rigorous review process that involves representatives from the MKMB, Kahu Ku Mauna Council, OMKM, project applicant’s design team, and community based Design Review Committee (DRC). Members of the DRC are appointed by the University of Hawai‘i at Hilo Chancellor.

Recommendation
OMKM is proposing that MKMB recommend to the President that this project be classified a Major project thus initiating the Master Plan Major Project review process. MKMB’s recommendation that the project be classified a Major Project does not mean nor imply that MKMB is recommending approval of the project. Classifying a project initiates the review process. The results of the review will be considered when MKMB makes a recommendation to approve or not approve a project.

Action
It was moved by Ron Terry and seconded by Herring Ka lua to accept OMKM’s recommendation to classify this project a Major Project and initiate the Master Plan’s Major Project review process. MKMB’s recommendation does not mean nor imply that MKMB is recommending approval of the project. The motion was carried unanimously.

Discussion
Dr. Terry recommended posting the project review process flow chart on the Office’s website. It would help the public understand and follow the project review process.

Both Dr. Chameau and Dr. Yang thanked the Board for allowing them to participate via videoconference. They have made six trips to the island of Hawaii. During each trip they have met people in the community. They felt it was extremely important to introduce themselves personally out of respect to the community and to listen and hear all of the questions and concerns about Mauna Kea. They learned how special Mauna Kea is. They have heard and understand the absolute importance of a paradigm change. They appreciate the role of the community-based Mauna Kea Management Board in providing advice to the Office of Mauna Kea Management and to Chancellor Rose Tseng of UH Hilo. They also appreciate and commit to the public process for evaluating projects such as this one. They appreciate and respect the community's concerns, and would like to engage openly and sincerely with the community. They must work on the success of the paradigm change to earn the support to allow them to come. If they decide to come to Hawaii, it is their desire to be not only a good neighbor and a partner with the island community, but also an integral part of this proud community. They are here to ask for permission and understanding as they go through this process. They look forward to continued dialogue and serious discussion as they continue to learn from various groups and individual Hawaiian community members about Mauna Kea.

For the future of astronomy on the mountain and how the TMT could be a part of that future, we need a new way, a paradigm change that is respectful and beneficial to all. It is extremely important to all of us that the 30-meter telescope will be able to make a contribution not only to the exploration of science, but also to the connection of science with humanity, culture, language, religion, environmental sustainability, and education, especially the education of future generations of children in Hawaii.

Dr. Chameau added they want to do good science, but they also want to make sure the local community will benefit from having such a facility on the island. They know that they can help support education, local culture, and be a strong supporter of the local community. They also feel it is important for the leadership to be on Hawaii Island, and he and Dr. Yang have been extremely impressed by the involvement of Chancellor Rose Tseng.

Dr. Terry noticed an article in the newspaper that the TMT Environment Impact Statement Preparation Notice (EISPN) had been delayed and which also delayed some public involvement. Is there an updated schedule on these two items? Dr. Yang replied the schedule is constantly being revised because we are very, very sensitive to doing the process right. It looks like we are scheduling about seven scoping meetings in the middle of October.
VIII. ANNOUNCEMENTS

A. Volunteers
Mr. Hoke volunteered himself, Harry Yada, and Jim Kennedy, as former members of the MKMB, to assist the Chancellor. Chancellor Tseng thanked them for their assistance. All three were former members of the original Board.

B. University of Hawai‘i’s Decision to Withdraw their Motion to Appeal
Debbie Ward asked if there would be discussion regarding of the University’s and DLNR’s decision to withdraw their motion to appeal. She stated that Judge Hara’s ruling calls for DLNR to conduct a natural resource management plan. Chair Taniguchi explained that when DLNR manages a project, they would do their own plan. When others are proposing a project, the applicant does the management plan, which the Land Board needs to approve. There is a difference between doing the plan and approving the plan. DLNR’s position is that they need to approve the plan, not do it. It is not realistic for them to develop plans for all their lands.

Dr. Terry responded that the appeal is not being discussed because the Board has not been informed about the reason why UH dropped their appeal. It’s been clearly stated before that we started on our Natural Resources and Cultural Resources Management Plans long before it became tied into a CMP. We want the CMP to be effective and to be implemented so we can start protecting the resources. DLNR is not going to prepare a comprehensive management plan. It would not be funded, it would not be executed, and it would never be implemented. Without a plan we will only be able to take action in piecemeal way. We need to put our differences aside and work forward to getting a good management plan for the mountain. Some people may think of it as the last requisite step towards future development on the mountain. By fighting more development on the mountain in this way you are unfortunately fighting the development of a management plan and delaying its implementation.

Ms. Ward’s concern is that the plan and future development are tied together. Dr. Terry repeated that the history of the development of a Natural Resource Management Plan and the Cultural Resources Management Plan shows that is not true. They preceded the requirement to develop a CMP. Ms. Ward mentioned Ku‘iwalu’s survey and the question about whether science and culture could coexist on the mountain. If you want a serious CMP you do not tie it to development.

Dr. Terry replied there has been talk back and forth as to whether development needs to be considered in the Comprehensive Management Plan. It is a difficult question. If you do not know what you are going to manage, how do you develop management for it? We have tried to take the position that we can do management independent of development, and that is what we intend to do.

Ms. Ward understands that. She has been on the committee, but she does not like the direction it is going.

IX. NEXT MEETING
The next meeting of the Mauna Kea Management Board is scheduled for Thursday, December 11, 2008.

X. ADJOURNMENT
There being no further business, Chair Taniguchi adjourned the meeting at 11:20 a.m.

Respectfully submitted:

Signed by Barry Taniguchi 12-11-08
Barry Taniguchi, Chair, MKMB Date