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Mauna Kea Management Board
Tuesday, November 27, 2001
Institute for Astronomy, Room 131
640 N. A'ohoku Place
Hilo, Hawai'i 96720

Minutes of Regular Meeting

Attending:

MKMB: Arthur Hoke, Chair; Rob Pacheco, 1st Vice Chair; Barry Taniguchi, 2nd Vice Chair/Secretary; Heather Cole, Jim Kennedy, Barbara Robertson and Harry Yada

Kahu Ku Mauna: Ululani Sherlock

OMKM Bill Stormont and Stephanie Nagata

Others: Claude Berthoud, David Byrne, Richard Chamberlain, Ron Koehler, Ron Laub, and Bob McLaren

I. CALL TO ORDER

Chair Hoke called the Mauna Kea Management Board (MKMB) meeting to order on November 27, 2001 at 9:30 a.m.

II. APPROVAL OF MINUTES

It was moved by Jim Kennedy and seconded by Heather Cole that the minutes of the October 15, 2001 meeting of the MKMB be accepted. The motion was carried unanimously.

III. DIRECTOR'S REPORT

Keck Adaptive Optics (A/O) Laser Star Guide Project

Keck A/O Laser Star Guide Project. Keck and Gemini Observatories have informed the Office they were working on incorporating laser star guide technology in its adaptive optics (AO) observation procedures. Keck will be conducting a test of its laser system in December.

Adaptive optics uses a bright object, generally a star, to help measure the amount of distortion on light as it travels through the atmosphere. As light passes through the telescope, simultaneous measurements of the distortion are made and are applied to correct the resolution of the image. In the absence of a star bright enough to serve as a guide, an artificial star is created by projecting a laser beam into the sky illuminating the sodium layer of the atmosphere creating a "virtual" star. The laser beam, which is projected from inside the observatory dome, is undetectable to the naked eye from beyond 300 meters of the laser source.

OMKM suggested Keck/Gemini develop an informational flyer for distribution to the general public that describes, in lay terms, the role of the laser star guide in the adaptive optics process.

Generalized Seeing Monitor (GSM)

IfA notified the Office that a test of the “seeing” quality at 13 North (an old tower site approximately 1 km west-northwest of Keck Observatory) using a Generalized Seeing Monitor (GSM) was underway on the summit. It is being conducted by astronomers from the University of California at Irvine and the University of Nice as a prelude to an early preliminary site test for the California Extremely Large Telescope (CELT).

The GSM is a portable optical device set on three (3) 1.0 meter high by 0.75 meter wide, square concrete blocks. The GSM works in tandem with two of another type of portable optical device, Differential Image Motion Monitors (DIMM) which are mounted on tripods. The GSM and one DIMM are currently placed on the northwest side of the Keck Observatory, and the second DIMM is placed at the 13 North site.

Due to the limited time the GSM is available for use in Hawaii (it is scheduled to be shipped to France), the Office verbally approved using the GSM and DIMM at Keck, and the second DIMM at 13 North. Testing will be completed around December 5. If a future test of the GSM at 13 North is requested, a formal written proposal needs to be filed with the Office. A proposal is necessary to determine: 1) potential project impacts; and 2) appropriate review process and action on the part of OMKM and MKMB.

Ranger Hiring

Position descriptions for the rangers are being finalized. Through a Memorandum of Agreement (MOA), OMKM has authorized MKSS to hire and oversee the rangers. In addition to representatives for OMKM and MKSS, Kahu Ku Mauna will be asked to assign a representative to serve on the interview panel. Recruitment is expected to begin in December.

Update on Training Funds (\$250,000 from Rural Development Project, U.S. Department of Labor)

The Office has been informed that \$250,000 has been allotted for the ranger training and machinist programs. Funds are available but will not be released until plans and budgets are developed. OMKM has been asked by the Office of Senator Daniel Inouye to develop a concept paper and budget for each program. Staff plans to meet with Hawaii Community College (HawCC) to discuss the programs.

It is not certain how the money will be divided between the two programs. Since HawCC does not have to wait for OMKM to submit its machinists plan, if OMKM’s plan is not timely filed, it could receive only the remainder of the funds, which may not be sufficient to cover the ranger training program. The Office was advised to proceed as expeditiously as possible and to work with HawCC to submit a coordinated plan to the Senator’s office. The plan does not need to be detailed, but it should describe what is proposed, the purpose of each component, how it is going to be carried out, resources available, a list of what is needed, and a budget.

Ranger Training

Ranger training funds could be used for curriculum development, i.e. determining what kind of information should be provided in the training and how this information will be utilized. Curriculum development should include public health and safety, cultural and environmental components, and astronomy related information. Kahu Ku Mauna will be asked for their input. The Office was encouraged to use resources available in the various MKMB committees

A question was raised whether emphasizing that curriculum include information presented in the master plan appendices would delay the hiring of rangers and the basic training in health and safety procedures. A concern was also expressed that the development of the training curriculum should not be done in a haphazard fashion, but it should also not drag on for years. Ranger training will be offered as an ongoing program and will evolve with changing needs, interest and focus. In the absence of formal training, rangers should read the Master Plan appendices and bring their level of information up to date. Further, some aspects of ranger training, such as first responder and first aid courses, are offered throughout the year and rangers can take these courses as they become available.

Present rangers did not receive any formal training, but were shadowed trained by existing staff using information gathered over the years by the VIS. Dave Byrne, Manager of the VIS, stressed that training has always been an important issue but has not been adequately addressed due to limited resources.

There are two aspects to training that need to be addressed – 1) the guiding aspect which involves logistics, safety and interacting with people and 2) the interpretive aspect. Both have different ways of being taught. The guiding aspect is more mechanical and is easier to train, while the interpretive aspect is an art and, therefore, is more difficult to train. Training must be more than just reading and understanding; it should also include how to effectively communicate information. Training must be an ongoing, continuous process, and it must have clear statements and definition about what rangers are expected to accomplish.

A priority is to hire someone to develop a curriculum. Director Stormont indicated there are resources on island capable of developing a training and interpretive curriculum. It was impressed that such a person does not necessarily need to possess specific information relating to Mauna Kea, but could be someone with skills in curriculum development and the knowledge of where to obtain such information and how to assemble it. Resources and information necessary to put a curriculum together are available. For example, the National Park system's interpretive and ranger training is available in modules on the Web.

The Office was further cautioned to budget carefully and to include field training and skills building. It was suggested to develop the training modules or components to serve multiple users such as VIS and observatory staff, as well as rangers.

Cultural Protocol

The Office has been informed that Senator Daniel Inouye has secured \$200,000 through Bishop Museum to develop a protocol for Mauna Kea. A protocol similar to the one established for Kaho'olawe is envisioned. Staff is working to obtain information from the Kaho'olawe Island Reserve Commission, the entity responsible for developing the protocol for Kaho'olawe.

Underground Storage Tank (UST) Removal

The tank was removed on November 14. Sludge filling two 55-gallon tanks was removed and the tank did not appear to have any leaks. Testing for soil contamination beneath the tank was conducted and results were negative. Poor weather conditions will delay the backfilling to November 29-30 or December 3-4.

Hawaii Island Chamber of Commerce (HICC) Presentation

Director Bill Stormont, and former Interim Director Walter Heen were invited speakers at HICC's Government Affairs Committee meeting on November 15. Mr. Heen gave a short history of events leading up to the Master Plan, and the roles and responsibilities of OMKM, MKMB and Kahu Ku Mauna Council. Director Stormont talked about current activities being undertaken by the Office and the mandate to ensure balance and harmony in the management of the mountain.

Public Information Meetings

Director Stormont reported his desire to host public information meetings twice a year in Hilo, Waimea, and possibly Kona. He is tentatively considering meetings in January or February 2002. The purpose of the meetings is to introduce Office staff, Board, and Kahu Ku Mauna Council members, to update the community on the functions and purpose of the Office, and to address issues relating to Mauna Kea.

IfA External Review Committee

IfA invited members of the MKMB and OMKM to an informal luncheon to meet members of the External Review Committee who are conducting an external review of Ifa. IfA requested this review, which will examine its organization, functions and programs. OMKM is scheduled to meet with the committee later in the afternoon.

IV. COMMITTEE REPORTS

A. Kahu Ku Mauna Council

No report

B. Hawaiian Culture Committee Meeting

Barbara Robertson announced the committee would be meeting this afternoon.

C. Environment Committee

Rob Pacheco and Heather Cole indicated they plan to hold a meeting of the Environment Committee.

V. OLD BUSINESS

A. Minor Impact Project Review Process (Expedited Review Process)

Jim Kennedy presented an expedited review proposal for handling minor impact projects. At the previous meeting there was discussion regarding the nature of a project and what would make it sufficiently substantial to require the Project Review process. There will be some projects that are clearly minor and expediting the project review process is deemed appropriate. The Expedited Review Process (ERP) addresses two functions (major/minor classification and minor project review/approval process) and two issues: 1) expediting the project review process; and 2) how the Master Plan fits within existing legal parameters.

1. Project Review Process

According to the Master Plan the project review process is as follows:

Step 1: Classification of project (major/minor designation)

1. Project is proposed to OMKM
2. OMKM with Board concurrence recommends project classification as major or minor
3. Recommendation is forwarded to the Chancellor of UHH who then forwards her recommendation to the President.
4. President's decision is then returned to the Chancellor of UHH and OMKM

Step 2: Project Review

1. OMKM and appropriate parties review project impact on the mountain.
2. OMKM with Board concurrence recommends approval or disapproval of project and forwards decision to the Chancellor of UHH who then forwards her recommendation to the President.
3. President's recommendation is forwarded to the BOR in the case of major projects, or becomes the final decision in the case of minor projects. In either case, the final decision is returned to the Chancellor of UHH and OMKM.

This process requires two trips to the president and for minor projects this seems unreasonable. Often this process can cause delays up to 2-3 months.

The Master Plan does not prescribe a specific process that the OMKM must follow in making the major/minor determination. However, reasonably it must require an examination of the details of the proposed project, at least to a level able to determine the scope of the impact.

The reviews prescribed for the formal project review of a minor project certainly include, and go beyond, those required to make the major/minor determination. For projects that appear obviously minor, the Expedited Review Process (ERP) combines the two steps (project classification and review) into one review process, eliminating one of the two trips to the President and speeding up the decision making process (one rather than 2-3 months). The proposed ERP does not circumvent the Master Plan process, but combines the two steps into one. If, after examining the review in such a case, the President should disagree with the

major/minor classification, the President would determine that the project was major and return it to OMKM for the major project review process.

2. Master Plan Fit

Walter Heen reviewed legal documents affecting activities on Mauna Kea, including the Department of Land and Natural Resources General Lease S-4191 (General Lease) to UH, and UH's subleases to observatories. The General Lease is the master lease granting the University of Hawaii use of Mauna Kea with certain terms and conditions. Likewise UH has individual subleases with the observatories with certain terms and conditions. Both the Land Board Lease and UH subleases are legally binding contracts.

Sublease Conditions. If an observatory wishes to make substantive structural alterations or additions to its facility that will significantly alter the external appearance or structure, the observatory is required to seek and obtain prior written approval from UH. The Master Plan provides a mechanism for seeking approval from UH.

Under the sublease, each observatory is required to keep its facilities in "good order and repair," and efforts to meet these conditions do not require approval by UH. The Master Plan does not address this issue, but instead focuses on activities that significantly alter the appearance of a facility.

The ERP addresses projects that do not meet the standard of significantly altering the appearance of a structure and are so minor they do not involve the Master Plan. For example, should the installation of the Red Cross antennae require going to the President twice for his approval? Not likely.

UH, in this case OMKM/MKMB, is required to determine whether a project meets the significant alteration standard. OMKM/MKMB can make the determination that a project be classified as less than minor. However, the project must still be proposed to OMKM/MKMB for review. If the project is found not to be even minor in nature, the office can approve the work without going through all the steps, but the approval and review process is conducted before MKMB and Kahu Ku Mauna and not behind closed doors.

Summary of ERP

A question then regarding activities under the sublease agreement that do not require UH approval, is whether or not approval from UH (President or BOR) is required. Under the ERP, OMKM and Board first determine if the proposed activity will significantly alter the external appearance of the facility. If not, OMKM with the approval of MKMB may proceed with the method described below:

1. Upon being informed of a proposed structural alteration of or addition to an existing facility, OMKM will discuss the details of the project with the observatory, MKMB, and Kahu Ku Mauna Council.
2. If, based on the above criteria, it is determined that the project WILL NOT significantly alter the external appearance or structure of the facility, the observatory may be allowed to proceed;
3. If, based on the above criteria, it is determined that the project WILL significantly alter the external appearance or structure of the facility, the observatory will be advised that the design review process must be followed; **however,**
 - a. where OMKM and the other reviewing groups determine that, notwithstanding the significance of the project with respect to the external appearance and structure of the facility, the project has only a minimal impact on the overall cultural, environmental,

and educational goals of the Plan (i.e. a minor project), OMKM will treat the project as minor, expedite the schematic and design development plan review phases of the review process and encourage the observatory to prepare construction plans for the project; and

- b. if upon final review, the plans are found to support the Master Plan's goals and objectives OMKM will recommend to the President, through MKMB and the Chancellor of UHH, that the President make the final determination that the project is a minor one and at the same time give final approval to the project.

Effectively, this process results in a full review (project classification and approval/disapproval) of a minor project and sending it to the President only one time.

Chair Hoke raised a question regarding the Subaru visitor gallery addition and whether a statement in the document was an indication this project will disturb ancient burial sites. It was clarified that the statement allude to involvement of minor excavation and DLNR has been requested to make a determination (note: see further discussion on this issue in the following paragraph). Concern was expressed about OMKM/MKMB's process taking place before DLNR completes its review. DLNR is likely to take more time to review and make a determination on projects compared to OMKM/MKMB and OMKM/MKMB could make a decision without having pertinent information. It would be awkward if OMKM/MKMB were to make a decision that was contrary to DLNR. It was suggested that for projects requiring DLNR input/approval that OMKM/MKMB make conditional recommendations, e.g. recommend approving a project pending DLNR determination.

Dr. McLaren stated that one of the sentences in the Draft ERP was incorrect. The referenced sentence states IfA informed OMKM it had submitted documents to DLNR relating to the Subaru Gallery addition project and is awaiting DLNR's determination. In fact, IfA was waiting to hear from OMKM to proceed and submit documents to DLNR. It was requested the erroneous statement from the document be removed.

Bob McLaren suggested it would be helpful if project proposals could be submitted simultaneously to DLNR and OMKM. With respect to the Subaru proposal, Subaru would like to have a contract in hand by the end of its fiscal year, March 31. Would OMKM/MKMB object to submitting the Subaru proposal to DLNR? Concurrent versus consecutive submittal of proposals to DLNR and OMKM would shorten the review and approval process considerably.

Prior to the Master Plan, the procedure was IfA would review a project based on conditions of the terms of the lease agreements and would, on behalf of UH obtain approval from DLNR. Post Master Plan, the DLNR approval process has not changed, but the UH process has. The Master Plan does not eliminate the review process, but instead assigns the review responsibility to OMKM instead of IfA.

Recommendations

It was moved by Rob Pacheco and seconded by Heather Cole to recommend to the President to approve the amended Expedited Review Process proposal. The motion was carried unanimously.

Subaru Visitor Gallery Project Request

It was moved by Jim Kennedy and seconded by Rob Pacheco pending the President's approval of the Expedited Review Process to recommend to the President that he designate the Subaru Visitor Gallery addition as a minor project, and grant approval of the project subject to a negative or minimal impact determination by DLNR. The motion was carried unanimously.

American Red Cross Antennae Project Request

It was moved by Jim Kennedy and seconded by Barry Taniguchi, pending the President's approval of the Expedited Review Process, to inform the President that the Red Cross Antennae installation project is deemed to have an insignificant impact and will be allowed to continue. The motion was carried unanimously.

VI. NEW BUSINESS

A. NASA Memorandum of Agreement (MOA)

Director Stormont presented a draft letter responding to NASA's MOA. OMKM's letter indicated that NASA addressed most of OMKM's concerns and agreed with Kahu Ku Mauna and Ahahui Ku Mauna's request that the MOA should contain a clause that clearly states that signing the MOA does not imply approval of construction of the outriggers telescopes project. Director Stormont reported Ahahui Ku Mauna, other than the issue discussed above, did not have a problem with the contents of the MOA.

The Office will need to consider the possibility NASA might not change the MOA. If so, what position will the Office take? Will it still sign the MOA?

It was suggested that since the letter is originating from the Office it should state it has received counsel from Kahu Ku Mauna and replace the references to Kahu Ku Mauna's signature and position with OMKM.

It was moved by Jim Kennedy and seconded by Rob Pacheco that the draft letter responding to NASA's Memorandum of Agreement be approved as amended. The motion was carried unanimously.

B. Wekiu Pre-Construction Monitoring Project

Director Stormont requested the Board's approval of a project to conduct surveys of the wekiu on Pu'u Hauoki and Pu'u Ku Kahaula (Wekiu). This project calls for a minimum of two samplings, utilizing live traps, to establish base line information on the wekiu prior to construction on Pu'u Hauoki. If approved by OMKM/MKMB, this project will be funded and will proceed regardless whether the outrigger telescopes project is or is not approved.

The Office feels this is a good project and recommends approval pending issuance of a scientific collecting permit from DLNR. Further, the Office does not believe this project is tied into the Section 106 process since it is not affected by the outcome of the outrigger telescopes permitting decision, nor does NASA fund this project.

The Board did not feel this was a Board matter since the project did not fall under the review process guidelines. The Board deferred this matter to the Office with a suggestion it prepare an informational letter for Chair Hoke on behalf of the Board to the President.

It was moved by Rob Pacheco and seconded by Barry Taniguchi that a letter to the President recommending this project be classified as minor and stating that the nature of the project does not require review by the Board, and such letter be prepared on behalf of the Board for signature by the Chair of the Board.

VII ANNOUNCEMENTS

A. Road Refurbishment

Ron Koehler requested guidance on his request to refurbish the gravel road between Hale Pohaku and the paved road leading to the summit. The Office had earlier indicated that cinder from the old batch plant was not available for road use, but instead preferred gravel from the Quarry near Waimea. Because of concern about the introduction of alien species, it was suggested that the gravel be washed prior to delivery to Mauna Kea. Mr. Koehler stated gravel from the quarry is fairly sterile and washing the gravel would wash out the fine silt useful in binding the gravel after it is laid down. Given

assurance of the gravel's sterile condition, MKSS was told to proceed and was asked to keep on top of anything that might grow out of the gravel.

The Board felt this was not a Board matter and deferred it to the Office.

B. Summary of Leonid Meteor Showers

David Byrne provided a summary of activities at Hale Pohaku during the Leonid meteor showers. An estimated 400 vehicles and 1,000 people visited the Mauna Kea to witness the event. The VIS remained opened all night with four staff and 20 volunteers. No accidents, or major or minor violations occurred and trash was minimal. It was a successful evening.

Mr. Byrne distributed a list of list of annual meteor shower events and indicated the Leonids and Perseids were the most notable events.

VIII. NEXT MEETING

There is no meeting in December. The date of the next meeting is to be determined.

IX. ADJOURNMENT

Chair Hoke adjourned the meeting at 12:00 p.m.

Respectfully submitted:



Barry K. Taniguchi, Secretary, MKMB

January 29, 2002

Date