



University of Hawai'i at Hilo

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**Minutes
Regular Meeting**

Mauna Kea Management Board
Wednesday, June 20, 2012

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

Attending

- MKMB:** Chair Barry Taniguchi, 2nd Vice Chair/Secretary Ron Terry, Lisa Hadway, Herring Kalua, Gregory Mooers, and Christian Veillet
- BOR:** Dennis Hirota
- OMKM:** Fritz Klasner, Stephanie Nagata and Dawn Pamarang
- Others:** Ming Tang Chen, Jesse Eiben, Linda Gregoire, John Hamilton, Steve Hardash, Cory Harden, Stewart Hunter, Jessica Kirkpatrick, Don Thomas, Dwight Vicente and Ross Wilson

I. CALL TO ORDER

Chair Taniguchi called the meeting of the Mauna Kea Management Board (MKMB) to order at 10:00 a.m.

II. APPROVAL OF MINUTES

Upon motion by Gregory Mooers and seconded by Lisa Hadway the minutes of the February 22, 2012 meeting of the MKMB were unanimously approved.

III. DIRECTOR'S REPORT

A. Thirty-Meter Telescope (TMT) Conservation District Use Application (CDUA) Contested Case

Director Stephanie Nagata reported there has been no word on the hearing officer's report.

B. Transit of Venus – June 5, 2012

The Transit of Venus was a successful event with no major incidents or accidents. In anticipation of a large gathering, the road to the summit was closed at the Visitor Information Station (VIS) and a free shuttle system was provided to transport people to the summit. Most of the commercial operators volunteered to participate in the shuttle system. A total of 13 vans were put into service making 41 round trips and transporting 400 passengers to the summit. Rangers estimated a total of 250-275 cars drove up to Hale Pohaku. It is also estimated there were approximately 1,400 people who came to Hale Pohaku.

Through the coordination of Chief Ranger Scotty Paiva and Mauna Kea Support Services (MKSS) we had the assistance of the Hawaii County Police Department which provided 11 police officers over the course of the day. Police officers were stationed at the Saddle and Mauna Kea Access Road junction, Hale Pohaku, and at the summit. The Hawaii County Fire Department coordinated emergency medical services with the Pohakuloa Training Area Fire Department which provided an ambulance at the Visitor Information Station.

In general the visiting public was very cooperative and many expressed their appreciation for the coordinated effort.

C. Wekiu Bug

Bishop Museum reported the preliminary results of their 2011 survey for wēkiu bugs. They recorded over 3,000 wēkiu bugs on Pu‘u Wēkiu, Pu‘u Hau Oki, Pu‘u Poliahu and near the Very Long Baseline Array Antenna (VLBA).

D. Burial Treatment Plan

A draft burial treatment plan, prepared by the Office of Mauna Kea Management’s (OMKM) consultants Pacific Consulting Services, Inc., will be introduced and reviewed by the Hawaii Island Burial Council at their June 21st meeting in Kona. The draft was previously reviewed by Kahu Kū Mauna. The purpose of the plan is to describe the treatment of known burials found on the University’s managed lands. It also includes measures on how to handle the inadvertent discoveries of bones. This plan is not driven by a construction project, which is usually the trigger for developing a burial treatment plan, but is part of OMKM’s responsibilities as described in the Comprehensive Management Plan (CMP) and the Cultural Resources Management Plan (CRMP).

Long term measures for known burials calls for preserving in place with periodic site inspections. The determination of the treatment and disposition of an inadvertent discovery shall be made by the Department of Land and Natural Resources (DLNR) in consultation with OMKM, Office of Hawaiian Affairs, Hawaii Island Burial Council and any recognized descendents.

The next step will be to include the Burial Council’s input into the plan before bringing it to Kahu Kū Mauna and the MKMB for final review and approval.

E. Ant Monitoring

Fritz Klasner initiated monthly ant monitoring at Hale Pohaku and all the observatories in March and April, respectfully. Baited sticky traps are put out and collected a week later. To date nothing noteworthy has been caught except spiders and one ant. The ant was found in the Hale Pohaku kitchen on vegetables delivered that day. No ants were found in subsequent surveys. The observatories have been very cooperative and accommodating of Fritz in his efforts.

F. Summer Intern

OMKM is participating in the Pacific Internship Program for Exploring Science (PIPES) and is funding Jessica Kirkpatrick for the summer. She is assisting Fritz with his project including his ant monitoring program and is also working with Dr. Jesse Eiben on the arthropod survey project. Jessica also has her own project in which she will be looking at arthropod diversity and host specificity on mamane and chenopodium around the Hale Pohaku area.

G. Volunteer Day

Fritz has been working with the VIS volunteer group organizing a once-a-month volunteer day. Fireweed pulls were organized around the Hale Pohaku area in March and along the road-side in April. In May the volunteers did some maintenance along the Humu‘ula Trail. The next scheduled volunteer day is June 30th. They will be doing more fireweed pulls around the 9,300-foot elevation and along the access road.

H. Office of Mauna Kea Management Website

The Office is currently revamping its website. For greater efficiency our host site will be shifted to the IfA server which also houses the VIS, MKSS, and Mauna Kea Observatories Astronomy Outreach Committee web sites. There is one webmaster coordinating and updating all the websites which will be linked according to topics.

I. Information Brochure

OMKM hired Sustainable Resources Group International, Inc. (SRGII) to developing an informational brochure that will contain information about the various resources on Mauna Kea. This will be given to visitors and passed out at various venues to generate awareness of the significance of Mauna Kea.

J. Visitor Information Station (VIS) Survey

At the suggestion of OMKM, MKSS coordinated with University of Hawaii Hilo professor Alton Okinaka to conduct a survey of visitors on Mauna Kea. This is to help give us an idea of who visits and how many visit the mountain. The survey was initiated this past spring and will terminate this fall.

K. Current Events

The services of Current Events has been secured to help OMKM interface with the community to provide information about who we are, our purpose, goals and objectives, and our function. The intent is to inform and update the community about Mauna Kea and what is happening on the mountain.

L. Mauna Kea Rangers

Two new rangers have been hired – DuWayne Waipa and Darrell Huston. Both have over 20 years experience with the Hawaii County Police Department. The two additions bring the total rangers to eight, including the chief ranger. This will allow three rangers to be scheduled daily with a minimum of two rangers on duty given vacation and sick days. This also provides more time spent monitoring on the summit and greater safety coverage, especially when there is a need for traffic control and evening star gazing activities.

M. International Alpine and Subalpine Symposium

The dates for the symposium are August 4-7, 2012. There are about 40 guest speakers coming from various parts of the world, including Africa, Europe, South America, Asia, the continental United States, and Hawaii. Several Hawaii speakers who are involved in research on Mauna Kea will be presenting or participating on a panel or in workshops. In addition to the presentation of papers, there will be panel discussions and workshops and a field trip to Mauna Kea and Mauna Loa. *Arctic, Antarctic, and Alpine Research*, a journal specializing in the publication of arctic type research is interested in publishing the papers presented at the symposium. Environment Committee and MKMB members are invited to attend.

N. United Kingdom Infrared Telescope (UKIRT) and James Clerk Maxwell Telescope (JCMT)

Director Nagata reported that funding for the United Kingdom Infrared Telescope and the James Clerk Maxwell Telescope will expire in June 2012 and 2013, respectively. Official communication regarding the decommissioning of either facility has not yet been received.

O. Recent High Winds

Sustained high winds of about 60 mph with gusts around 90 mph occurred on the summit a couple of days ago. The winds blew rocks onto the road between the summit ridge and the NASA Infrared Telescope Facility. High winds at Hale Pohaku blew off part of the roof above the ranger office. Fortunately, no one was injured from the falling rocks or flying roof parts. Replacement of the ranger office roof is being worked on today.

IV. KAHU KŪ MAUNA COUNCIL (KKMC)

Chad Kalepa Baybayan reported the Council will be reviewing policies and making recommendations for CR-7: Appropriateness of Constructing New Cultural Features and CR-9: Stacking of Rocks. The Council reviewed and made their recommendations to the draft Burial Treatment Plan. Two things that stood out in the plan were: 1) the treatment of inadvertent finds and 2) the difference between assumed burials and confirmed burials. Lastly, the Council will be interviewing for one new member to the Council.

Herring Kalua asked who makes the assumption if a burial is assumed or confirmed. Director Nagata explained there are known burials because of the presence of iwi. A number of features are believed to be burials but excavations were not made to confirm they are burials. These are called assumed burials. Assumed burials are treated as burials for purposes of protection and maintenance.

V. Committee Reports

A. Environment Committee

The committee met on June 13th. Dr. Terry invited Fritz Klasner to give the committee report. Committee discussions included:

1. Development of a research catalogue that addresses information needs identified in the Natural Resources Management Plan (NRMP). It will also help with identifying and prioritizing research and coordinate with other groups and interested parties to help meet those information needs. The research catalogue will be part of the implementation plan for the natural resource component.
2. Invasive species plan is going through the last administrative process for approval. A meeting with all parties took place in May to ensure all parties have similar expectations and understanding.
3. Working with the Hawaii Department of Agriculture regarding honeybee problems at Hale Pohaku. Two swarm traps are in place near Hale Pohaku facilities. The intent is to reduce the likelihood of swarms forming on facilities.

VI. NEW BUSINESS

A. Gemini Observatory: Request to Install

1. Dome Shutter Service Platforms, and
2. A Global Positioning System (GPS) Antenna

Dome Shutter Service Platforms - Project Background, purpose and planned activities

There are four dome shutter drives (one each on the upper and lower shutters on both sides of the shutters) that are used for raising and lowering the upper and lower shutters. The dome drives require periodic maintenance and repair. To access the drives, Gemini staff place a temporary plank that is cantilevered from the upper platform catwalk located at the base of the dome and top of the support structure. This method is both difficult and unsafe. To provide for a safe working environment while servicing the dome drives, Gemini is proposing to install permanent service platforms.

The platform incorporates a flat metal grating surfaced that can accommodate two people while performing their servicing activities. The design of the platform meets safety, seismic, and snow, ice, and wind loading standards. The platform will be pre-fabricated off site and shipped to the island where it will be assembled on site. The shipping containers will be inspected upon arrival by a trained biologist approved by OMKM.

Assembly of the platform requires the use of a crane to lift the assembled platform into place. The entire structure will be painted black to match the existing colors of the observatory. A man-lift will be used for inspections that may be required by the County of Hawaii. Both the crane and man lift will be on site for the duration of the installation and will remain within the boundaries of the Gemini site disturbed area. Gemini will perform quality control measures to assure that no debris is loose, is properly contained and transported off the mountain for disposal. Estimated time to install the platforms is about three weeks. Gemini does not anticipate any ground disturbance to the site during the installation.

GPS Antenna – Project Background, purpose and planned activities

Gemini currently uses an internet connectivity to operate facility's routers and switches. They also have a GPS antenna that downloads signals from a satellite clock as a backup in case they lose their internet connectivity. The location of the existing GPS antenna is on the east side of the support building but it does not receive a sufficient stable signal. Gemini is proposing to install another antenna on the south side of the support building to increase the signal strength and reliability.

The antenna is composed of two 27" tall pipes, each with a 6" cap. The pipes will be attached to a pipe that will be mounted perpendicular to the enclosure wall and will extend out about 30". The antenna assembly will be pre-fabricated and made ready for installation by drilling a hole into the enclosure wall.

Kahu Kū Mauna Council

Kahu Kū Mauna did not have objections to either of projects.

DLNR Permit/Approval

Dome Shutter Platforms

DLNR reviewed the dome shutter platforms proposal and stated this project is an identified use in the Conservation District pursuant to HAR §13-5-22 *Identified Land Uses in the Protective Subzone, P-8 STRUCTURES AND LAND USES, EXISTING, (A-1) Minor repair, maintenance, and operation to an existing structure, facility, use, land, and equipment whether it is nonconforming or permitted, that involves mostly cosmetic work or like-to-like replacement of component parts, and that results in negligible change to or impact to land, or a natural and cultural resource, and does not require a permit.*

In addition the installation of the dome shutter platforms can be considered exempt from needing an environmental assessment pursuant to HAR §11-200-8 (2) *Replacement or reconstruction of existing structures and facilities where the new structure will be located generally on the same site and will have substantially the same purpose, capacity, density, height, and dimensions as the structure replaced.*

GPS Antenna

Given the relatively minor nature of this proposed activity compared to the dome shutter platform project, it is likely a DLNR permit is not needed. However, an inquiry with DLNR will be made to confirm.

OMKM Recommendations

1. Based on the following, OMKM recommends classifying both of these projects Minimal Impact:

- The proposed requests do not increase the ground footprint of the facility.
 - There are no archaeological sites in the immediate pathway.
 - No excavation is involved and the activity will take place on previously disturbed land and within Gemini’s footprint.
 - The impact to the immediate surroundings and summit region are negligible.
 - Dome Shutter project:
 - This is a needed safety measure.
 - The platform pieces will be pre-fabricated and brought to the summit for installation; containers will be inspected by a biologist approved by OMKM prior to delivery to the summit.
 - Installation is a short duration – approximately 3 weeks.
2. If these projects are classified Minimal Impact, OMKM recommends Gemini be allowed to proceed with its requests.

Conditions

OMKM recommends the following conditions:

1. Submit copies of correspondence between the applicant and DLNR.
2. If a DLNR permit for the GPS antennae project is issued submit a copy to OMKM.
3. Comply with conditions of the DLNR Permit.
4. Notify OMKM when it will commence installation activities.
5. Gemini shall implement the following mitigation measures as well as resource protection measures described in its proposal:
 - Gemini shall ensure that loose tools or equipment are not left on the job site at the end of each day by its contractor or by Gemini staff.
 - In the event of high wind conditions precautions will be taken to prevent debris from being blown from the job site.
 - All waste material generated will be removed and disposed of properly; all perishable items, including food, wrappers and containers shall be removed at the end of each day.
6. Submit a copy of the invasive species inspection report of the crates/containers and transport vehicle for the dome shutter platform parts.
7. Allow OMKM rangers to visit and monitor installation activities.
8. Notify OMKM upon completion of the project.

Discussion

Dennis Hirota asked if each facility had its own timing GPS system or if this is unique to Gemini. Christian Veillet replied they have their own which is good because they do not have to rely on connections between other observatories.

Gregory Mooers noted that when DLNR reviews requests they have a set of standard conditions that are applied. Condition 3 of DLNR’s letter states: *“The requirements set out in the Mauna Kea Comprehensive Management Plan and associated Resource Subplans be followed during construction;”* It may not be a bad idea for this Board to have some standard conditions that are applied. What he would like to see happen as proposals come forward from the users of the mountain is that they explain how their proposal is consistent with the plans that have been adopted. As the regulatory body we should require compliance with our plans. He recommended coming up with some standard conditions similar to DLNR’s which comply with our plans.

Ron Terry endorsed Mr. Mooers’ statement adding we should require the applicants to review all applicable plans and discuss consistency. Dr. Terry also expressed appreciation to Gemini for bringing forward two projects at once as Kahu Kū Mauna has asked before.

Action

It was moved by Ron Terry and seconded by Herring Kalua to accept OMKM’s recommendation to classify both projects Minimal Impact and allow the applicant to proceed. The motion was carried unanimously.

B. PISCES: Request to Lay a Temporary Cable from the VLBA to a Vantage Point Overlooking “Apollo Valley”

The Pacific International Space Center for Exploration Systems (PISCES) is requesting to lay a temporary fiber optic cable between the VLBA to an antenna placed at a vantage point overlooking the plain of glacial remains (“Apollo Valley”) in DLNR’s Forest Reserve.

UHH faculty John Hamilton and Christian Anderson, are the Principal and co-principal investigators, respectfully, of the analog field test for the robotic rover portion of the PISCES project. The rover they will be testing is a prototype that will be sent to the moon to conduct ground truthing surveys for elements and resources including water, which is believed to exist on the lunar surface. The testing is an effort to “simulate” real-time, remote communication conditions that will be used to operate the rover on the moon. The test will also provide field experience for remote maneuvering of the rover.

Scope of Work

“Apollo Valley” was chosen because of its geological similarity to the moon’s surface. “Mission Control” will be at Hale Pohaku. Because pu‘u on Mauna Kea block wireless signals, it is necessary to establish a wireless connection between the project test site and “Mission Control.” The project is proposing to lay a 1000 foot cable between the VLBA and a portable antenna overlooking the rover test site. The antenna will be mounted on a tripod approximately five feet tall. The cable requires power which will be provided by a portable generator attached to a propane tank with sufficient fuel to last six days of service. There are no archaeological sites along the proposed pathway. Proposed dates of the project are July 10 – 20th. The main operational dates are July 13 – 19th. The test of the rover will be on DLNR Forest Reserve land, but access to the site will be via the Summit Access Road. Permission has been granted by VLBA to hook up to their system.

Kahu Kū Mauna Council

Kahu Kū Mauna did not have objections to this project.

DLNR Permit/Approval

Permission has been granted by DLNR to test the rover on Forest Reserve lands.

OMKM Recommendations

1. Based on the following, OMKM recommends this project be classified Minimal Impact:
 - The proposed request is temporary – six days.
 - There are no archaeological sites close to the proposed path of the cable.
 - The general area is not prime wēkiu bug habitat and installation activities will have minimal impact on bug habitat provided the cable pathway is kept to the large-dense rock type (gray-brown-tan large rocks and avoid walking on the less-dense rock tephra (red-brown rocks).
 - Impact on plants, especially silverswords, is minimal; avoid all plants by laying the cable to either side of any encountered.
 - Impact to immediate surroundings and summit region is minimal.
2. If this project is classified Minimal Impact, OMKM recommends PISCES be allowed to proceed with this request.

Conditions

OMKM recommends the following conditions:

1. Officially notify OMKM when it will commence its activities, citing day and time it will lay the cable
2. Arrange with OMKM for a ranger or OMKM’s Natural Resources Program Manager to accompany the project crew and monitor the laying of the cable.
 - The crew laying the cable must keep to the large-dense rock type (gray-brown-tan large rocks and avoid walking on less-dense rock tephra (red-brown rocks).
 - Crew is to place cable away from all encountered plant(s).
3. Crew is stay off of all pu‘u (cinder cones).
4. Use only local large rocks for anchoring cable and tripod – no use of sand, soil, or cinder either from local or external sources.
5. Upon completion of the test scatter rocks used to anchor equipment.
6. No excavation or drilling of holes for anchoring the tripod or other equipment.
7. Arrange with OMKM for ranger support regarding the parking of vehicles alongside the summit access road.
8. Notify OMKM when it completes its testing and removal of equipment.

Discussion

Mr. Mooers stated an additional condition should be added stating the applicant contact DLNR to make sure their permitting process is in place and that they provide OMKM of all correspondence with DLNR. Dr. Terry noted also if there are any conflicts in the conditions.

Lisa Hadway asked if the Forest Reserve permit was issued to the applicant. John Hamilton explained Roger Imoto is holding the permit pending final determination of no impact from the State Historic Preservation Division. There is an archaeological site at the edge of the glacial wash. They had two of their archaeological firms research this matter.

Ms. Hadway stated because this is one of those dual jurisdictional situations it would be helpful in the future for the Board to know if the applicant has a DLNR permit or be provided with more information from DLNR. She recommended adding another condition that the Forest Reserve permit has to be in place with all conditions represented.

Dr. Terry asked if there was any involvement or benefit to UH Hilo students. Mr. Hamilton replied they are hiring about 35 students. Most of these students will be assisting at Hale Pohaku and at their adjacent test site.

Dr. Veillet had a question about the radio frequency to be used and if they would be any impact on Mauna Kea. Mr. Hamilton stated details have been handled and are in place between the National Radio Astronomy Observatory and the Institute for Astronomy. It is using the same mode that the Venus transit broadcast used.

Dr. Veillet stated this should be added in the conditions.

Action

It was moved by Gregory Mooers and seconded by Herring Kalua to accept OMKM's recommendation to classify this project as Minimal Impact and allow the applicant to proceed with additional conditions as amended. The motion was carried unanimously.

C. Dr. Don Thomas: Update on the Army's Test Drilling for Water - Humu'ula Groundwater Hydrology Investigation Update

Project Background, objective and plan

This project is being conducted by the University of Hawaii Institute of Geophysics and Planetology and is funded by the Cooperative Ecosystems Study Unit Program. It also has strong support from a broad array of stakeholders including county, state, federal agencies. They are seeking funding from the National Science Foundation (NSF) for basic research on core and water analysis. The objective of the project is to better understand Hawaii Island's hydrology.

The plan is to drill two small diameter test/core holes and analyze the geology and groundwater. Testing will help to determine the isotopic and age variations corresponding with depth. They also hope to make an assessment of the recharge sources and residence time of the water in the aquifer(s). A second borehole will provide a measure of the "scale" and variability of the hydrologic structures and determine supporting/confining formations for water and implications for the Saddle region and adjacent areas.

Status

A Draft Environmental Assessment has been completed and a Finding of No Significant Impact is proposed. He anticipates publication of the Draft Environmental Assessment notice by the Office of Environmental Quality Control on July 8th. With completion of the environmental review and permitting process they hope to initiate drilling in late September

Discussion

Mr. Mooers asked the name of the accepting agency. Dr. Thomas replied it is the University.

Dr. Terry asked what could we learn about Mauna Kea in general from a geological look at the Saddle area. Dr. Thomas replied there is a lot that is unknown about Mauna Kea so it would be hard to project what we will learn. It is very possible that elements of Hualalai maybe be under the flank of Mauna Kea. It was recently learned that the northeastern flank of Mauna Kea is underlaid by Kohala Mountain. He is hoping to get a better sense of what the relationship is between Mauna Kea and the other volcanoes and in turn what their function is in relation to the storage of water within the island.

Herring Kalua commented that communication is critical for a project to succeed. Was there communication with the various landowners in the area? Dr. Thomas replied there were intensive discussions with the Department of Hawaiian Homes on Oahu as well as here locally and the Leeward Planning Conference. They also tried to make the community aware of the project. Mr. Kalua volunteered his services to the project. We need to do things

right for the next generation.

Chair Taniguchi asked what the future implications would be. Will it be a source of water for Pohakuloa or the Mauna Kea observatories? Dr. Thomas replied if they find there is a high level of water and it is broadly distributed within the Saddle region then he suspects the Department of Hawaiian Home Lands is going to be very interested in drawing water. The Army will want to develop a water supply of their own as well. Folks within DLNR and Parker Ranch have expressed interest in a water supply.

Cory Harden asked if the water is tested for contaminants and, if so, what contaminants do they test for. Dr. Thomas replied they would probably initially do a broad spectrum test to see if there is any evidence of contaminants. The Department of Health has a very intensive list of contaminants. They would certainly do trace metals testing.

VII. ANNOUCEMENTS

Dwight Vicente, representing the Hawaiian Kingdom, stated that all the various agencies are creatures of the Northwest Ordinance of 1787 and not creatures of the United States Constitution. These lands are Crown Lands meaning that it is reserved for the use of the crown. Mr. Vicente reserves the right of this Kingdom under the Queen's protest of January 7, 1893.

Mr. Kalua asked Mr. Vicente how he can help this Board and work together to make it a win-win situation for his group. How can we help each other to make it right? Mr. Vicente stated he is not a group; he is independent. Mr. Kalua stated he "walked the talk." We need to be partners and try to work things out. We cannot have different groups working out things on their own, but instead we need to work together. He is willing to work with any group out there, which members have the same blood as he and make it right for the next generation. He asked Mr. Vicente if he were to join him what would be the guarantee that we will get what we need. If we fight, fight, fight nothing will happen. He wants to work together with Mr. Vicente to make things happen and have a win-win situation. There is no sense in coming to a meeting like this and keep talking and nothing gets done.

VIII. NEXT MEETING

The next meeting is tentatively scheduled for Wednesday, September 19, 2012.

Board members were asked if they preferred quarterly or bi-monthly meetings. Dr. Terry stated he thought this Board responds to the need that is out there. He thinks quarterly meetings could work if there were intermediate meetings when the need arises. Chair Taniguchi thought that was a good compromise.

Chair Taniguchi announced today is the last meeting for Regent Dennis Hirota as his term on the Board of Regents ends June 30, 2012. Regent Hirota was thanked for his time and effort in attending Board meetings, giving his advice, and for being the liaison with the Board of Regents.

IX. ADJOURNMENT

There being no further business Chair Taniguchi adjourned the meeting at 11:25 a.m.

Respectfully submitted:

Signed by Dr. Ron Terry
Dr. Ron Terry, Secretary, MKMB

9-18-12
Date