

FB 09-11 BUDGET
OPERATING BUDGET ADJUSTMENT REQUEST
UNIVERSITY OF HAWAII

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III. OPERATING COST DETAILS

	MOF	FY 10 Request			FY 11 Request			FY 12	FY 13	FY 14	FY 15
		FTE (P)	FTE (T)	(\$)	FTE (P)	FTE (T)	(\$)	(\$ thous)	(\$ thous)	(\$ thous)	(\$ thous)
A. Personal Services (List all positions)											
Manager of Student Involvement (Imiloa)	A	1.00		50,000	1.00		50,000	50	50	50	50
Other Personal Services Student Assistants/Interns (Imiloa)	A			20,000			20,000	20	20	20	20
Fringe Benefits Turnover Savings											
Subtotal Personal Service Costs		1.00	0.00	70,000	1.00	0.00	70,000	70	70	70	70
By MOF	A	1.00	0.00	70,000	1.00	0.00	70,000	70	70	70	70
	B	0.00	0.00	0	0.00	0.00	0	0	0	0	0
	N	0.00	0.00	0	0.00	0.00	0	0	0	0	0
	W	0.00	0.00	0	0.00	0.00	0	0	0	0	0
B. Other Current Expenses (List by line item)											
Services, non-employee	A			760,000			890,000	920	950	980	1,010
Subtotal Other Current Expenses				760,000			890,000	920	950	980	1,010
By MOF	A			760,000			890,000	920	950	980	1,010
	B			0			0	0	0	0	0
	N			0			0	0	0	0	0
	W			0			0	0	0	0	0
C. Equipment (List by line item)											
Subtotal Equipment				0			0	0	0	0	0
By MOF	A			0			0	0	0	0	0
	B			0			0	0	0	0	0
	N			0			0	0	0	0	0
	W			0			0	0	0	0	0
L. Current Lease Payments (Note each lease)											
Subtotal Current Lease Payments				0			0	0	0	0	0
By MOF	A			0			0	0	0	0	0
	B			0			0	0	0	0	0
	N			0			0	0	0	0	0
	W			0			0	0	0	0	0
M. Motor Vehicles (List Vehicles)											
4-Wheel drive (new)	A			45,000							
sedan (new)	A			25,000							

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4-Wheel drive (replacement)	A					45,000	50	55	61	67	
Subtotal Motor Vehicles			70,000			45,000	50	55	61	67	
By MOF	A		70,000			45,000	50	55	61	67	
	B		0			0	0	0	0	0	
	N		0			0	0	0	0	0	
	W		0			0	0	0	0	0	
TOTAL REQUEST		1.00	0.00	900,000	1.00	0.00	1,005,000	1,040	1,075	1,111	1,147

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IV. JUSTIFICATION OF REQUEST

a. Please provide general justification

Office of Mauna Kea Management (OMKM)

Since its establishment in August 2000, OMKM has never requested an increase to its budget. It has used its funds prudently to carry out its operations and setting the groundwork for developing a comprehensive management plan (CMP). A CMP is necessary for UH to protect and preserve the resources of Mauna Kea and is required pursuant to a Circuit Court ruling for all future development projects proposed for Mauna Kea. All proposed future development, including telescope observatories, must submit a CMP in order to obtain a permit from the Board of Land and Natural Resources. The University's goal is to continue the advancement of astronomical research and maintain its leadership role in the field of astronomy by hosting future state-of-the-art facilities, while preserving and protecting the resources and, more importantly, the sanctity of Mauna Kea.

OMKM anticipates it will have the CMP completed by the end of December 2008. OMKM will ask the Legislature in Spring 2009 for authority to develop and adopt administrative rules which is necessary in order to enforce the management recommendations of the CMP. Although specific management recommendations and rules are unknown at this time, there is no doubt that implementation of the CMP and administration of the rules will require additional personnel, research, and programs. OMKM is also aware of the need for additional research to fill in the information gaps necessary for OMKM to properly manage the resources. The CMP will be identifying those research gaps.

Operational costs are very high due to the type of activities the OMKM, in particular the rangers, must contend with on a daily basis. Activities are especially high risk due to the exposure to changeable and extreme weather conditions; harsh, remote and variable work conditions; long and frequent drives on unimproved and dangerous roads; and caring for the health and safety of the public on rough and remote terrain.

OMKM's activities and operations are critical elements of the infrastructure necessary to support world-renown astronomical research by the University of Hawai'i. This infrastructure includes research, monitoring and protection of the biological, physical, and cultural resources of Mauna Kea, without which the community would not allow the University to advance its astronomy research programs on Mauna Kea, including programs of the UHH Astronomy Physics Department.

Imiloa Astronomy Center

The Imiloa Astronomy Center is an ideal place to provide internship opportunities to students in a variety of disciplines. For example, astronomy majors can intern in the planetarium and/or astronomy exhibits, hawaiian studies majors can intern in various culture exhibits and education, science education majors can participate in the practice of both formal and informal science education, business majors can gain experiences in marketing, management, and/or planning, and communication majors can serve as docents. In turn, Imiloa can gain valuable operational assistance from the participating student interns. To be really successful in the internship program, a staff is needed to recruit, screen, place and monitor the progress of these interns. The current request is to establish such a position in Imiloa to coordinate this effort and to provide some funds for the training, evaluating and assistance to this program.

b. Please describe how this request will meet strategic outcomes, identify which outcomes will be met

Office of Mauna Kea Management (OMKM)

Goals and Objectives of the University's Strategic Plan include: 1) assuming leadership in knowledge creation by building on existing research strengths, addressing critical gaps, and capitalizing on Hawaii's natural advantages; and 2) promoting research through collaboration across disciplines, among campuses, and with international colleagues; management of the summit of Mauna Kea will indirectly support excellence in research on Mauna Kea. By protecting the resources, Mauna Kea can continue to be a place where interdisciplinary research in astronomy, biology, hydrology, geology and Hawaiian culture will thrive. Without proper management, activities should not be allowed to continue because of the potential harm and negative impact to the resources, including potential destruction of archaeological and cultural sites, and habitat of the wekiu bug, a candidate for federal threatened and endangered status.

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Imiloa Astronomy Center

Internship has been widely recognized as a high impact activity in contributing to student learning, persistence, retention and ultimately graduating. In addition, through the internship, we encourage Native Hawaiian students to gain practical experience in various science fields such as astronomy through the integration of culture with science.

- c. What is overall benefit of this proposal to: the state, system, UHH, individual students?

Office of Mauna Kea Management (OMKM)

The overall benefit is to the entire UH system, and with special emphasis on UH Manoa and UHH. As long as Mauna Kea maintains its lead as the premier location on earth to conduct astronomical research, UH will continue to receive the best and most advanced technological astronomy related project proposals. UHH's Astronomy & Physics Dept. will benefit immeasurably because of access to its own instructional telescope on of Mauna Kea - no other undergraduate program in the world have an instructional telescope on prestigious location in the world. Having a telescope on Mauna Kea will attract students to UHH with ancillary benefits to other UHH science and research programs.

The economic and social benefits to the Big Island community and State are enormous. Astronomy is a vital part of the State's efforts to expand its high technology industry. It adds diversity and stability to Hawaii's economy which is highly dependent on the visitor industry, a volatile industry tied to the health of national and global economies. Social benefits include expansion and development of excellence in science and math programs of Hawaii's institutions of higher learning; opportunities for local student in particular, Native Hawaiians, to obtain degrees and skilled jobs in the high tech fields; and raised standards of living for Hawaii's people.

UH and the State will not benefit if astronomy declines. To maintain its lead and attract new projects, there must be a sense of harmony and effective management of the mountain provided by OMKM.

Imiloa Astronomy Center

More students will persist through graduation in a variety of majors, particularly in science, education and business.

- d. What is the consequence to the state, system UHH, or individual students if this proposal is not funded?

Office of Mauna Kea Management (OMKM)

Without the operations of and proper management by OMKM of the summit of Mauna Kea, UH will continue to be denied by the community, in particular the Native Hawaiian community, to allow the advancement, including future development, of astronomy on Mauna Kea. This also impacts UHH which, for the first time, will have its own instructional telescope on Mauna Kea. Any future changes, including expansion or improvements to the new UHH facility hinges on the successful management by OMKM.

Imiloa Astronomy Center

Students will miss a great learning opportunity interning in a real life business/educational establishment such as Imiloa. In addition, Imiloa will have to spend more money to secure operational assistance.

V. RELATIONSHIP OF THE REQUEST TO STATE PLAN OR FUNCTIONAL PLAN

- a. What are the outcome measures that will be used to measure the success of this proposal? (this should be quantifiable)

Office of Mauna Kea Management (OMKM)

Success of the proposal will be the successful implementation of the CMP and OMKM's policies and directives and acceptance by the community of astronomy on Mauna Kea. If Astronomy is allowed to continue to exist and advance success will also be measured by the number of jobs, expansion of UH Manoa's and UHH's academic astronomy programs, including increased enrollment; increase research grants; and expansion of and increased vitality of the Big Island economy.

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Imiloa Astronomy Center

a) Number of interns served in the Center; b) Quantity and quality of work performed.

b. What is the timeframe for this measurement?

Success of OMKM is a long term objective and a timeframe is indeterminate at this time.

Statistics for Imiloa will be compiled yearly.

c. What is the current level of measurement?

OMKM and it's programs are new. There is no historical or baseline to assess a measurement

Currently, Imiloa has two astronomy interns in the planetarium. Their presence in the planetarium allowed Imiloa to eliminate one professional staff.

d. Proposed consequence of not meeting the performance measures? Specifically, if measures are not met, what does program propose happens to this additional funding?

OMKM: See c. above. Application of requested funding will be applied to achieve long term goals and objectives.

Imiloa has more students wanting to intern here than we have staff to monitor and mentor them. In addition, Imiloa provides an ideal location for student internship. We do not anticipate any lack of student interest.

e. What are the current resources being applied to this area (positions and dollars)?

Office of Mauna Kea Management (OMKM)

There are currently three full time administrative and three part time personnel. Total annual salaries is approximately \$250,000. The balance of funds are used to support and maintain the ranger corp; fund long on going surveys and multi-year research projects; development of management plans, including the CMP; and outreach, including a newsletter.

Imiloa Astronomy Center

Currently, Imiloa does not have any staff or resources applied to a Manager of Student Involvement.

f. Explain why current resources cannot be reallocated for this purpose?

OMKM does not have sufficient current resources to reallocate.

Imiloa receives about 25% from State G-funds and the rest must come from revenues, grants and contracts. We cannot fund this without sacrificing the primary function and mission of the center.

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- g. Explain what expenditures have been made for this or similar efforts in prior years. Have those efforts been successful? Please elaborate.

Office of Mauna Kea Management (OMKM)

Expenditures have been made for research on the resources of the Mauna Kea that require protection. These include an archaeological inventory of the entire 11,000 acres of the Mauna Kea Science Reserve; ongoing surveys and 4-yr study of the life history of the wekiu bug, a candidate species for endangered status; funding of a 4-year climate study related to wekiu food dispersal patterns; establishment of a 5 member permanent ranger corp; funding of the operations of the ranger program; funding of the development of a cultural and a natural resources management plans; hiring of part-time librarians and establishment of a resource library, and development of database system for recording daily observations by the rangers.

The work initiated by OMKM has yielded information about the Science Reserve that to date has been largely unknown. Now OMKM has a better idea of the resources that require protection and preservation. The ranger program is a highly successful one. The presence of rangers has helped to increase awareness of the significance of the mountain to the visiting public; have helped to curtail degradation to the resources through their interaction with the public and their daily monitoring of activities on the mountain; monitor commercial operators and prevent inappropriate activities that are harmful to the environment; provide safety functions, including traffic control and first aid assistance. The archaeological inventory has resulted in a clearer picture of the cultural landscape. Wekiu bug research has increased the knowledge of the bug's habitat range and a better understanding of the biology of the bug, which until recently, very little was known.

Daily recording of data by the Rangers are inputted into a database. There is now statistics relating to vehicular traffic, recreational activities, observatory and commercial tour activities.

Imiloa Astronomy Center

As mentioned above, we have two astronomy interns now in the planetarium operation. They gained practical experience in using the equipment and in the meantime, Imiloa saves money by not having to pay for another professional staff.

VI. ELECTRONIC DATA PROCESSING

Not applicable

VII. IMPACT ON OTHER STATE PROGRAMS/AGENCIES

Office of Mauna Kea Management (OMKM)

Astronomy is tied into and part of the State's high technology industry which is administered and monitored by the DBEDT. Success of astronomy contributes to the State's program to expand it's high tech industry. Mauna Kea is a visitor destination because it attracts visitors to the mountain, in particular, Japanese visitors. Visitors use commercial operators to provide transportation to Mauna Kea to view the sunset and to star gaze at lower elevations. OMKM is a partner and neighbor to DLNR lands. OMKM's rangers help provide oversight of DLNR's Mauna Kea Ice Age Natural Reserve, the location of the best known adze quarry in Hawai'i.

VIII. IMPACT ON FACILITY REQUIREMENTS (R&M, CIP)

Not applicable

IX. EXTERNAL CONFORMANCE REQUIREMENTS

Not applicable

X. OTHER COMMENTS