

Interoffice

NATIONAL RADIO ASTRONOMY OBSERVATORY

TUCSON, ARIZONA

July 27, 1977

*25 Meter Millimeter Wave Telescope  
Memo #98*

To: Working Group, 25-m Telescope

From: M. A. Gordon

Subject: Proceedings of Two Meetings Regarding Hawaii and the NRAO

I. Board Meeting, Canada-France-Hawaii Telescope Corporation

A. Attendance

On July 18, 1977, the Board of the CFH Telescope met at Intelsat offices in Washington, D. C. Their afternoon agenda included discussion of the style and possible locations of their sea-level facilities on the island of Hawaii. The NRAO and the Royal Observatory at Edinburgh were invited to participate in this discussion.

The CFHT Board presently consists of

W. M. Armstrong (Canada)	
R. Audé (France)*	
P. Creyssel (France)	
J. Delhaye (France)	Chairman
C. Fehrenbach (France)	
J. Jefferies (Hawaii)	
L. Kerwin (Canada)	
J. Locke (Canada)	Secretary
D. MacRae (Canada)	Vice-chairman
H. Masumoto (Hawaii)	

\*absent.

Also present were

C. Berthoud	Project Administrative Officer, CFHT
R. Cayrel	Executive Director and Project Officer, CFHT
P. Charvin	Chairman, Scientific Advisory Council, CFHT
M. Gordon	Project Manager, 25-m Telescope, NRAO
C. Humphries	Project Manager, UKIRT
A. Jubier	Secretary to the CFHT Board
T. Lee	UKIRT
G. Odgers	Associate Project Officer, CFHT
W. Wehlau	Vice-chairman, Scientific Advisory Council, CFHT
R. Wolstencroft	UKIRT

## B. Objective

The thrust of the meeting was that CFHT had to make a decision regarding sea-level facilities to accommodate their timescale for operations.

## C. Background

The owner of the Parker Ranch, Richard Smart, had offered 2 parcels of land for consideration as "sea-level" locations for the observatories using Mauna Kea. MacRae (CFHT) -- see Appendix 1 -- and MacRae et al. -- see Appendix 2 -- investigated the land and living conditions within the town of Waimea, also called Kamuela. During these visits, Mr. Smart offered a 3rd parcel for consideration, the Puuloa Paddock (see Appendix 3). This tract is smaller than the others but is zoned for village-commercial use, and is located within the town itself as shown on the map attached to Appendix 1.

Mr. Smart wants to make the land available at no cost to the observatories. He wants the tax advantages from this transaction, and also would like to build and lease the complex to the observatories at a rate which would provide 8 percent/year return on the building investment. Any such transaction would be made binding upon his heirs or trust.

His suggested tax advantage would occur in the following manner. He would assess annual rent for the use of the land, in addition to building rent. By written contract, the land rent would be donated to the observatories. This technique avoids arguments with the IRS as to the actual rental value of the land.

## D. Discussion

The CFHT people, the UK and NRAO representatives tended to support the concept of a "campus" arrangement for sea-level facilities. That is, while all observatories would share common facilities such as a library, cafeteria, lecture room, and others within a central building, each observatory would have their own building in adjacent locations.

## E. Result

The Board passed resolutions to locate their sea-level offices in Waimea, to urge other observatories to locate there as well, and to authorize their agent to negotiate a lease of the Puuloa Paddock with Richard Smart. Objectives of the negotiations will be a 99-year lease (the longest term possible without the transaction being regarded as a sale), a more workable method of securing tax advantages for Mr. Smart, and an agreement which prevents unilateral changes in the terms of the lease.

Although unaware of detailed arrangements, I suspect that the University of Hawaii will consummate the lease with Mr. Smart. Their established status as a non-profit, educational institution will be helpful in dealings with the IRS. The CFHT Director, Harold Masumoto, will probably make arrangements through his office as Director of Administrative Services of the U of H.

## II. Initial Meeting of the "Mauna Kea User's Advisory Committee"

### A. Attendance

On July 19, 1977, the new MKUAC met in the AUI Board Room in Washington. The committee consists of 2 representatives from each observatory now using, or planning to use, the summit of Mauna Kea. The present membership is as follows

William Brunk (NASA)	David Heeschen (NRAO)
Roger Cayrel (CFHT)	Colin Humphries (UKIRT)
Pierre Charvin (CFHT)	John Jefferies (UH), Chairman
Dale Cruikshank (UH)	Terry Lee (UKIRT)
Mark Gordon (NRAO)	Karl Rakos (VUO)

In addition, this meeting included Claude Berthoud (CFHT), Ramon Wolstencroft (UKIRT), Graham Odgers (CFHT), Don MacRae (CFHT), and a representative from the Austrian Embassy.

### B. Agenda

Principal items consisted of the composition of the sea-level and mid-level facilities. Also discussed were problems resulting from restrictions in the Master Plan.

This group generally endorsed the campus concept in Waimea, not surprising because many of them were at the CFH Board Meeting. There is concern over the Parker Ranch having too much power with regard to the operation of the sea-level facility.

Tentative plans for the sea-level facility include two-story buildings, one of which will serve as a core for the others. The lot size is 6.8 acres, adequate to provide 100,000 feet of building space of the first floor, gross, according to architects for the University of Hawaii. The group suggested that the core building include provision for

- Library
- Reception/Administrative Services
- Lounge
- Cafeteria, Kitchen, Dining Room
- Computer area
- Helium and Nitrogen liquifier
- Conference/Colloquium Room

Because CFHT and UKIRT will need these facilities soon, the U of H will begin work immediately on architectural plans for the core building. The role of the core building is to be cost-effective by housing common facilities and to provide social interaction between the observatories' staffs.

The mid-level facility is funded, but not designed. The University of Hawaii has funds to retain an architect (\$100K) and for construction (\$2M). The most optimistic estimates for completion are 6 months for design, 6 months for approval, and 24 months for construction. Jefferies needs information regarding

MID-LEVEL FACILITY  
ESTIMATED AREA  
July 1977

	<u>Square Feet</u>	
A. Maintenance Area		
Generator and Transformer Station	300	
Storage	400	
Workshop	300	
Fuel	200	
	<u>1200</u>	
Plus 10 percent unusable	120	1300
B. Dormitory		
55 Bedrooms at 250 sq. ft. each	13750	
Plus 20 percent	2750	16500
C. Apartments		
Six at 900 sq. ft. each	5400	
Parking Spaces (Covered)	1600	
	<u>7000</u>	
Plus 10 percent	700	7700
D. Common Area		
Kitchen, Pantry, Dining	2000	
Locker Room	400	
Day Room	800	
Toilets	400	
Janitor	100	
Recreation	800	
	<u>4500</u>	
Plus 20 percent	900	5400
E. Research Preparation		
Offices: 10 at 150 each	1500	
Laboratories: 4 at 300 each	1200	
Library	800	
Darkrooms: 2 at 150 each	300	
Photographic Storage	100	

## E. Research Preparation (Continued)

Toilets	200	
Janitor	100	
	<hr/> 4800	
Plus 20 percent	840	<hr/> 5040
Total for all buildings		33940
Plus Additional for Roads, Parking, etc.		

I noted that dormitories will be used at non-traditional hours because IR-and radio-astronomers can observe during the days. To accommodate these people the rooms should have a high degree of acoustic insulation. Even dividing them into a day-sleeping and a night-sleeping area will not be as satisfactory.

The UKIRT group expects to be in Hawaii by Fall 1978, the CFHT group is now in Hilo and expects to be operational by June 1979. NASA's IR telescope will also be first used in the summer of 1979. The 1-m telescope of Vienna University Observatory is planned for use by the end of 1978.

The Master Plan suggests (requires?) minimal facilities at mid-level. The dormitory is clearly essential but other facilities could be argued. Jefferies is thinking of 2 separate buildings: a dormitory and a working building. I believe the working building should be constructed with movable partitions, because surely we are going to learn new ways of operating at high altitude by doing. Our buildings should not prevent putting these into practice.

The summit area has suffered from the provisions of the Master Plan. The upper road cannot be improved from its existing primitive state. The installation of underground power service from the saddle to the summit is too expensive (estimated at \$7M) for serious consideration. Jefferies plans to consult the governor regarding these topics.

The rationale for preventing improvement to the road is that its primitive condition will deter random visitors. It is now unpaved, and traffic generates dust. Because it is built-up, it is difficult to place reflective markers or guard rails in the most dangerous sections, all of which would constitute an unauthorized improvement. The route is fixed by the Master Plan, because the Board does not want further intrusions into Mauna Kea's landscape. Maintenance of the road is assigned to the University of Hawaii, who are prohibited from improving it.

At the summit electrical power will come from four generators newly acquired from NASA. The Master Plan suggests construction of a generating plant at mid-level, and transmission to the summit via underground cables. Diesel generating is expensive anyway, but the additional cost of underground cables and the presence of noise near the dormitories makes this suggestion unwelcome.

The \$7M estimated cost of bringing power up along the road from the saddle was made a few years ago by the local power company. The Master Plan stipulates that the route must follow the road, so as to minimize further incursions into the ecology. Other shorter and hence less expensive routes are ruled-out.

c: D. S. Heeschen  
D. E. Hogg  
L. Randall

# APPENDIX I, GORDON MEMO

CANADA - FRANCE - HAWAII TELESCOPE CORPORATION

## Fact-finding visit to Waimea by ad-hoc committee 1977 June 23 -25

Report by D. A. MacRae

1. Introduction A group composed of the writer, John Jefferies, Pierre Charvin and Claude Berthoud visited Waimea and its environs subsequent to the last Board meeting. They met with senior persons from the Parker Ranch (PR) and with representatives of the community, visited both private schools, surveyed the proposed site of the headquarters, investigated possible housing in neighbouring communities, stayed at the Lodge, and explored the town in considerable detail.

The present document, prepared shortly after the visit, is a personal report by one member of the group and should be read in conjunction with reports by the others.

In the interval between the Board meeting and the visit of this group Messrs Jefferies and Berthoud had met with PR in Waimea. Berthoud's report of that meeting of June 8 is dated June 20. It was on that occasion that the Puuloa Paddock Lot was offered for our use.

2. The Puuloa Paddock Lot Before having seen this property I had doubts about its suitability. I was afraid that it would be surrounded by structures of a highly commercial nature which would be out of keeping with an observatory headquarters and with our position in the community. These doubts were dispelled during the recent visit.

The Puuloa Paddock is probably the most attractive and valuable single piece of property within the town limits. Its size is appropriate for our present needs and possibilities exist for acquisition of other land to the north and west if expansion is required. The surface is level and it is

bounded on all sides by an ancient stone wall ( which should be preserved). If the lot is regarded as a square the diagonals run north-south and east-west. The northwestern boundary is the Waikoloa Stream. The northeastern boundary is land owned by Richard Smart and occupied by the Roman Catholic Church. The 600 ft. southeastern boundary lies along the Mamalahoa Highway and on the part of the southwestern boundary not occupied by the Stream is a small cemetery and the Waimea Inn.

At the eastern corner the Mamalahoa Highway takes a bend towards the south so that the property is in full view as one enters the town from Honokaa. Immediately east of the property are public and semi-public lands and establishments, notably the 3-acre Waimea Public Park lying along the highway and between it and Church Road, and the churches, missions, etc. along the north-west side and at the end of Church Road.

On the other side of the Highway directly across from the property is the Lucy Henriques Medical Center behind a row of mature trees, and further east is the area being developed for a new civic center - police station, community center, fire hall, court house, etc.

Attention should be called to a very small (0.25 acre) lot at the eastern corner which appears to be owned by a Nancy Ikeda, and which might be a detriment to the Puuloa Paddock if it were not acquired or its use controlled.

The Puuloa Paddock is clearly a very desirable property in a prominent location with surroundings which will protect it and add value to its setting. It might be wise for the Corporation to acquire a one-acre lot in the industrial area not far away for open storage, warehousing, vehicle maintenance, etc. since such use would be less in keeping with the main function of the Puuloa Paddock.

Size x 6.88 Acres in all.

3. Parker Ranch Terms    The committee met with Don Hanson, Richard Smart, and Ted Riecker (PR Lawyer) in a brief but productive session on Thursday afternoon June 23.

PR proposed to make the property available on a long-term (55 years or more) lease, rather than to give it outright. At the same time Richard Smart undertook to return the rent as a gift annually. This, of course, raises a new set of problems - we must be careful not to sow the seeds of



difficulties for our successors. A perpetual lease would be better than one with a finite term; one can foresee that the property would become extremely valuable by the year 2033, much more so than the land on the top of Mauna Kea. One wonders why PR has changed its mind from an outright gift, and whether the advantages to them are really that important. We should be concerned either that the rent is very low or that the trustees of Richard Smart will be directed to continue the practice of returning the rent annually.

Another important question is who will receive the gift or obtain the lease. It has become clear (a letter from the President of the University of Hawaii to Richard Smart, and his reply of June 24) that UH wishes to play this role. Thus a detailed agreement between CFHT and UH is called for, one in which the special status of CFHT in connection with this property is recognized. There ought to be an agreement as to a limitation of use of the property for astronomical purposes by users on the top of Mauna Kea. CFHT should undertake the specifications and provide approval of the design of the buildings, and should be involved in the site planning. Initially at least a special Users' Committee should be set up for Puuloa Paddock, independent of the Users' Committee for the mountain-top and mid-level site. Consideration should be given to establishing a separate corporate entity to develop and operate Puuloa Paddock, with sub-leases of the property from UH and the buildings from PR.

PR stated clearly that they wished to finance and construct the buildings (to our specifications) and lease them to the users as a business venture. No specific rates of return on investment or amortization period were proposed at this time. PR felt that a 2-year period is reasonable for the planning and construction phase.

4. Temporary facilities The interior of the former medical center was inspected.

It has been substantially cleaned up and was temporarily in use as a summer religious school. As noted in May, a third building will be needed in order to provide the necessary 4000 square feet. It seems likely that PR can move a disused house to the site, as they have done in other instances. It is felt that the existing lanai on the larger existing structure should be preserved, not boarded up to provide more floor area. The garage should be

considered as extra space, not part of the required 4000. Current occupants (an oculist and a dentist) should be given adequate notice. Eventually perhaps after being vacated by CFHT, these quarters may be temporarily used by other groups such as NRAO.

5. The Town of Waimea The committee met with an informal group composed of several influential members of the community on Thursday afternoon at the home of William Morriss (see list attached). The group's purpose was, of course, to boost the Town of Waimea, but they did so in a very restrained manner. We felt that CFHT would be welcomed as a major addition to the town's activities and that CFHT personnel would find themselves in a friendly and helpful environment.

Fears have been expressed by various colleagues that the influx of a large number of scientists would make a severe impact on a relatively small town like Waimea. I do not feel that this is a matter for serious concern. The town is not so small that it cannot absorb an influx of the magnitude expected; it already is in the process of growth and expansion and thus is prepared for an influx; and finally many of its residents are either tourists or families who occupy their Waimea homes for only part of a year. If parallels are to be sought, the town of Socorro, New Mexico, where NRAO is constructing the VLA, is appropriate, and I am informed that no friction has developed there; Waimea is a far cry from Green Bank, a situation which did become unworkable.

There are at least three Service Clubs in Waimea any of which would help to provide a means for CFHT employees to merge with the existing community. In addition we were assured that there are many other opportunities for participation in community affairs, in hobby and cultural activities, and in outdoor recreational activities.

I prepared a check list of stores and civic services which are the earmarks of larger communities on the mainland, and I spent some time surveying Waimea for purposes of comparison. In summary, I found no serious deficiencies. The persons we dealt with did not feel that necessities were difficult to acquire locally, perhaps with the exception of shoes. Sears mail order is a useful source of supply.

5. Housing in and near Waimea It has been recognized that finding appropriate housing in Hawaii will probably be a difficult and continuing problem. Mr. Morriss will carry out a survey of houses currently available for rent, and until that information is available and can be compared with our detailed needs, we cannot make an accurate assessment of the question. It may be necessary for some personnel to take temporary quarters until something more agreeable comes along. On the other hand it may be that the market possesses enough flexibility to satisfy our requirements on most occasions. The lack of an abundance of housing available at the moment may simply reflect a slow demand, and possibly when our needs are more clearly forecast and made known, builders will proceed immediately to provide what is needed. We were given the impression that there are numerous builders in the wings who are prepared to go to work on short notice.

Land costs are high, running perhaps 20% of the total. Materials must come by ship from the mainland but shipping costs do not seem excessive. Labour costs are about equal to or a little more than the cost of materials. A new 2 bedroom house in Waimea would be in the 60 to 80 thousand dollar range (and higher of course for a larger one with added frills).

The generosity of Richard Smart in providing land to the CFHT will substantially reduce CFHT's occupancy costs. However, the high cost of land for residential purposes will make living in Waimea expensive for our personnel. The Board should consider how it might reduce this factor. Perhaps PR could make land available to the corporation on which multiple or single family houses could be constructed and rented to permanent CFHT employees at a reasonable cost.

The committee did not have available information on zoning for residential purposes. One has a general impression that there are residential lots available, and that new subdivisions could be opened if the need arises. Mr. Moon Sameshima, member of the County Council for Kohala, was present on Thursday afternoon and assured us of support from himself and his colleagues on Council.

It should be borne in mind that there is a very marked gradient in the weather from the Honokaa side of Waimea to the Kawaihai side, even over distances of only a few miles. The rainfall on the Kawaihai side (or "wet side")

is many inches more per year than on the "dry side". There is also a strong and constant wind blowing from the north-east to the south-west across the saddle. It was quite cool (mid 60's) and partly cloudy while we were there.

As for other communities, development of Waikoloa appears to be at a standstill and there was little promise along the parts of the coast which we visited (e.g. Puako).

7. Schools in Waimea It is generally reported that up to grade 6 the public schools are adequate. No doubt there would have to be some supplementary education provided by parents for their own children, or in groups.

The Parker School gives a very good impression but school was not in session and our visit was rather brief. The facilities are minimal but seem likely to improve. In contrast to the Hawaii Preparatory Academy, scholarship seems to be the main concern at the Parker School. At HPA the sports and dining facilities are magnificent and sports seem to be heavily emphasized. HPA appears to draw its students from a very wide area around the Pacific while the Parker School caters to local families. Our children might fit in better at Parker School.

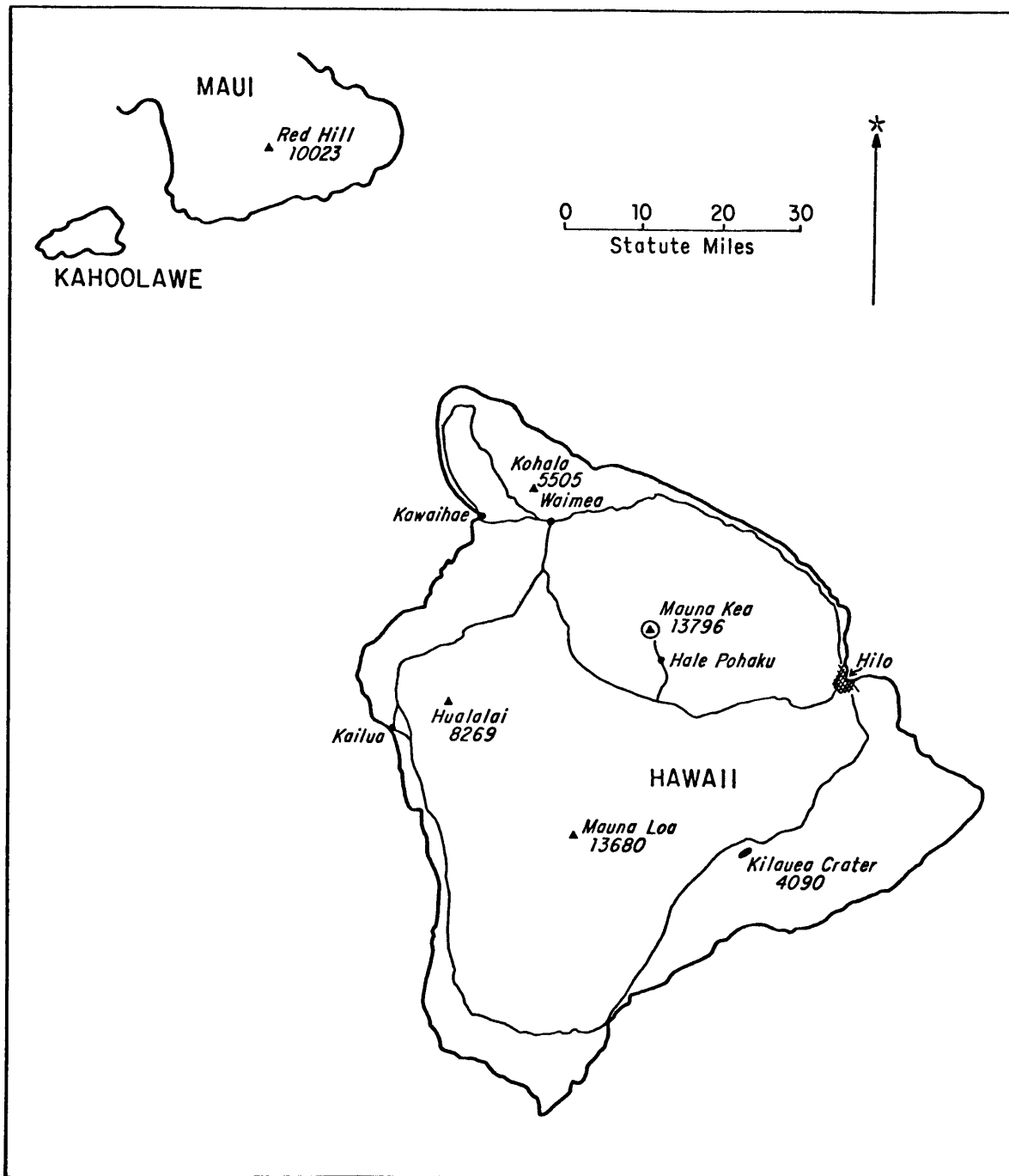
Both schools made copies of their brochures available to us and these should be consulted for further information.

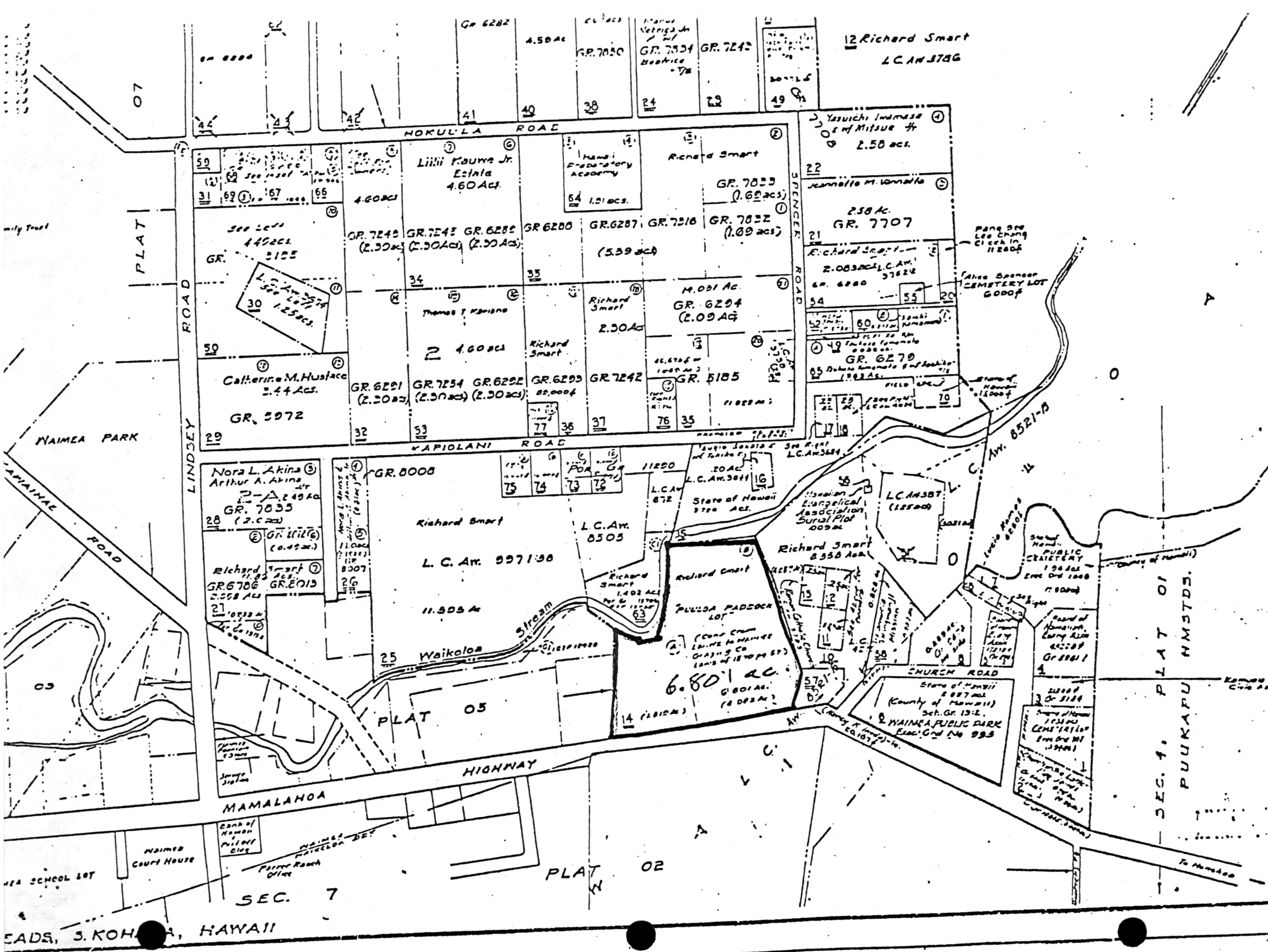
COMMUNITY PERSONALITIES MEETING WITH CFHT COMMITTEE

THURSDAY, 23 JUNE 1977 3:00 PM

Bill Morriss	(Pat)	President, Waimea-Kawaihae Community Association
Richard (Dick) Penhallow	(Olive)	Former Parker Ranch Manager, friend of Richard Smart
Monte Richards	(Phyllis)	Kahua Ranch, former member UH Board of Regents
Ralph Sallée	(Harriet)	Chairman, Science & Technology Committee of the Community Association
Moon Sameshima	(?)	Member, County Council (Kohala)
Ed Shepard	(June)	Headmaster, Hawaii Prep Academy
Jan Unger	(Tom)	Principal, Parker School

# APPENDIX I





DRAFT

REPORT OF THE HEADQUARTERS COMMITTEE  
MEETING OF 23-24 JUNE 1977

ATTENDING: D.A. MacRae, J.T. Jefferies, P. Charvin, C. Berthoud

In accordance with the request of the Board of Directors, the committee met on 23-24 June 1977 in Waimea for the purpose of:

- Studying, on location, the feasibility of establishing there the permanent base headquarters of CFHT and other astronomy groups on Mauna Kea
- Investigating the financial arrangements governing such an establishment
- Formulating recommendations to the Board

The committee limited the scope of its investigation to Waimea because a specific offer of land had been received, because it felt that the special characteristics of the area needed closer study and because it was perceived that the Board as a whole had shown great interest in this location.

The committee concentrated its attention to four main areas:

- Mr. Smart's offer and arrangements with Parker Ranch
- The reaction of representatives of the community
- Educational resources
- Housing

The committee also used the various discussions to further acquaint those concerned with the CFHT project, and to express its concept and requirements with respect to the future headquarters.

Parker Ranch

The committee met with Richard Smart (the owner), Don Hanson (General Manager) and Ted Riecker (attorney for R. Smart).



Mr. Smart repeated his offer, already expressed to CFHT and UH representatives (C. Berthoud and J.T. Jefferies) at a meeting on 8 June, to make available, free of charge, a property known as Puuloa (lots A and B), situated opposite the new Lucy Henriques Medical Center, between Mamalahoa Highway and Waikoloa Stream (see map, Attachment 1). The site includes 6.801 acres (2.75 hectares), all within the "Urban" Land Use District and zoned "Village Commercial - 7.5" in the County General Plan. No rezoning action would be required to establish headquarters on this parcel.

The form of the transaction would be governed by its consequences for Mr. Smart with respect to taxes. On the advice of Ted Riecker, he intends to grant a long term lease of the property (55 years or more) to UH or any other qualified recipient. Fair rental value would be paid to him and he would in turn make a donation in the same amount. In addition, Mr. Smart is prepared to construct the buildings needed by each group, as well as a central facility, according to requirements and specifications to be expressed by the users. While free use of the grounds would amount to a gift, the structures would be leased on commercial terms to be negotiated, probably also on a relatively long term basis.

The above basic offer is contained in a letter dated 24 June, drafted immediately after the meeting with the committee, and sent in reply to a recent query by Dr. Matsuda, President of UH (see Attachment 2). The proposed terms of the arrangement were subsequently discussed in greater detail at a meeting between Ted Riecker and C. Berthoud (see Attachment 3).

From Mr. Smart's standpoint, the lessee and recipient of the donations could be any organization qualified to receive contributions deductible under the U.S. Internal Revenue Code, which is the case for CFHT, UH and possibly some of the other users. It was felt that UH may be in the most logical position to assume this role, it being the common denominator of, and presumably a participant in all current and prospective groups involved. If this was the case, the committee believes that it would be necessary to secure a firm guarantee that the land be exclusively used for the intended purpose, namely the establishment of base headquarters for all astronomical groups on Mauna Kea.

Mr. Smart also repeated that he would be willing to approach Laurence Rockefeller during a trip to the mainland later this year, with a view to exploring the possibility of support from the Rockefeller Foundation, perhaps in the form of a grant for the acquisition of furnishings and equipment for the common facility. Mr. Smart is well acquainted with L. Rockefeller, who owns a residence in Waimea and whose interests include Rockresorts International (Mauna Kea Beach Hotel) and the Olohana Corporation (real estate development in the Kawaihae area). Specific proposals would have to be presented.

The committee took a walking tour of the property in question, which now is a meadow surrounded by an old lava rock wall. The size of the parcel appears adequate. This is also confirmed by standards furnished by the UH Physical Planning and Construction Office, according to which the total area of 296,252 square feet (27,522 m<sup>2</sup>) could accommodate construction of up to 98,000 square feet (9,104 m<sup>2</sup>) of gross area, resulting in some 70,000 square feet (6,503 m<sup>2</sup>) net assignable space. This could accommodate, for example 6 groups occupying on average 10,000 square feet (929 m<sup>2</sup>) of net space each, plus a 10,000 square foot common facility.

The areas surrounding the property have the following uses:

- North of the highway - Honokaa side:  
several churches (including historic Imiola Church) and accessory residential buildings; cemetery
- Beyond Waikoloa Stream:  
land zoned "Agricultural - 1 acre", with several parcels used as large residential lots; the main owners are R. Smart and the State of Hawaii
- North of the highway - town side:  
land zoned "Village Commercial - 7.5", including one lot occupied by a restaurant (Waimea Steak House)
- Directly across the highway:  
the new Lucy Henriques Medical Center, with a proposed hospital to be situated behind it
- Across the highway - Honokaa side:  
a Civic Center including the new police station (existing), the fire station (under construction), a senior citizen center and the District Court House (planned); Waimea's first public library was planned as part of the center, but is now to be located near the school for practical reasons.

In general terms the proposed land appears to be located in the "institutional-civic" area of Waimea and headquarters for scientific organizations would be compatible with the surrounding land uses. Potential development of commercial activities in the near vicinity of the property could only take place along the highway, in the direction of the town center.

The committee felt that if headquarters were to be constructed on the proposed lot, certain services such as vehicle shops and material storage space ought to be located off-premises, for example in the light industrial area existing west of the shopping center, where rental space is available. This would be both for aesthetic considerations and to conserve prime space for other uses.

Mr. Hanson also stated that Parker Ranch is going ahead with plans to build a complex including a community hall and a 400-seat theater near their Visitor Center. This facility will be available to scientific groups for larger functions, such as lectures or conventions.

Mamalahoa Highway currently is the main link between the Hamakua Coast and the West Coast of Hawaii. Traffic, a mixture of local and regional travel, is moderate (a count in 1971 showed 4,836 vehicles daily, vs. a capacity of 6,617 vehicles daily according to conservative Federal standards). A new highway, by-passing the town on the south side (near the airport), is planned. Design is advanced, but the land acquisition (primarily from the Hawaiian Homes Land Commission and Parker Ranch) remains to be done. Realization is expected in the early 1980's.

### Community Representatives

In order to inform the representatives of the community of CFHT's intentions and needs, to test their reaction and to gather further information on the area and its resources, the committee met with the following group of personalities:

Bill Morriss - President, Waimea-Kawaihae Community Association

Richard Penhallow - Realtor; former Parker Ranch Manager

Monty Richards - Manager of Kahua Ranch (North Kohala); former member of UH Board of Regents

Ralph Sallée - Chairman, Science & Technology Committee of the Community Association

Muneo Sameshima - County Councilman, representing the Kohala Districts

Ed Sheppard - Headmaster, Hawaii Preparatory Academy

Jan Unger - Principal, Parker School

The 2 1/2 hour discussion included the following main topics:

- Site and facilities envisaged for headquarters
- Size and type of staff for CFHT and other groups
- Integration of staff in the community
- Housing needs
- Cultural activities
- Recreational resources
- Political aspects
- Public relations

It was apparent from these and subsequent conversations that all those present warmly welcomed the prospect of scientific organizations establishing in Waimea, for other than commercial motives. While this group of community leaders is not a cross-section of the district's entire population, no negative reactions have yet been received from any source with respect to the proposed headquarters, of which people throughout the community have evidently been aware for some time. This was confirmed by Bill Morriss, who stated that the leaders of all other civic organizations are participating in the Community Association. Also, on 8 June, C. Berthoud and J.T. Jefferies had made short presentations at a membership meeting of the Association, and the response from the audience of some 60 persons was cordial.

The group expressed the hope that the staff would participate in the community and not tend to live apart. Dispersal of residence among several areas in the district would help to achieve this. Ideas on how to welcome the families were expressed by several persons.

Cultural activities are very limited and cannot be compared to those in cities such as Honolulu or similar urban centers on the mainland. The group feels, however, that they compare favorably with the Island's other areas, due to the presence of two active private schools, the relatively high level of education in the population, and a growing number of residents professionally engaged in arts and crafts. The new theater to be built by Parker Ranch will be featuring quality movies regularly. It is also expected that incoming personnel, with their diverse backgrounds and good education, will provide a significant cultural input.

Recreational opportunities, primarily of the outdoors type, abound. Waimea is close to the Island's best beaches; tennis and golf at nearby resort facilities are available to community residents on attractive terms; public park and sports facilities are freely available.

Councilman Sameshima indicated that he has not yet received a reply to his letter of early May to the Mayor inquiring about the latter's position with respect to an establishment in Waimea (nor has there been a reply to R. Cayrel's letter of 25 May 1977). He confirmed again that almost all members of the County Council have expressed to him their intent to support the establishment of headquarters by astronomical organizations in any location of their choice on the Island. He would be ready to sponsor a Council Resolution to this effect when and if necessary.

The need for more public relations by groups such as CFHT was expressed by the community group. People are visually keenly aware of the telescopes, but generally know very little about their purpose and the organizations behind them. This effort should be through lectures, visits on site and personal relationships, preferably not handled by a P.R. professional.

The discussions were continued during an informal dinner hosted by CFHT for the participants and their spouses.

### Schools

The schools in the Waimea area which would be attended by the children of the CFHT staff are shown in Attachment 4, together with their basic tuition cost, when applicable.

The committee visited the two private institutions, Parker School and Hawaii Preparatory Academy, and had extensive conversations with their heads and some of the faculty. The committee found that both schools provide good educational opportunities for staff dependents. Parker School will go into its second year of operation in the Fall of 1977; the faculty is professional and dedicated to providing quality academic teaching and a close teacher-student relationship; the physical facilities are modest but adequate; several classrooms are being added during this summer. HPA has a well-established reputation academically and in sports; its facilities are attractive and extensive, particularly the library and the athletics installations; programs in the higher grades are more oriented towards boarding students (75% of the total in grades 9 to 12). Descriptive documentation on these two establishments is available.

The public (State Department of Education) schools in Waimea proper include grade 1 to 6 (elementary and intermediate levels). High school students go to Honokaa, some 13 miles (21 km) from Waimea. The elementary school at Waimea is considered good by the faculty at Parker School and would be satisfactory for CFHT staff children. Problems affecting public schools in Hawaii generally are increasingly apparent from grade 7 upward, and incoming staff children may encounter difficulties in adapting.

In conclusion, the Waimea area offers the broadest range of educational establishments on the Island of Hawaii below the college level. Because the private schools may be the only satisfactory solution for many staff children in the higher grades, the Corporation should consider granting financial assistance for their education.

### Housing

In addition to the village of Waimea, the following housing areas may be considered by the staff: Kawaihae (11 miles/18 km from the town center); Puako (15 miles/24 km); Waikoloa (16 miles/26 km); Honokaa (13 miles/21 km) connecting roads have very light traffic. Kailua-Kona (39 miles/63 km), is also a possibility.

Resale properties, together with existing and planned new subdivisions, provide a sufficient market for permanent staff wishing to purchase a residence. The establishment of scientific headquarters and the resulting demand for housing is in itself likely to generate more supply, as the real estate developers' interest is aroused. The minimum cost of a satisfactory 3-bedroom house can be estimated at \$60,000.00.

Rental units are scarce, a situation which could be a problem in the case of a large influx of personnel simultaneously seeking this type of accommodation. However, the proper personal contacts can produce rental units in addition to those visible on the market (e.g. from Parker Ranch; owners of properties purchased for retirement or as second homes; faculty on leave). Bill Morriss is currently conducting a comprehensive survey of the resources which would be available to the staff complement expected to arrive in early 1978. Rental rates for unfurnished 3-bedroom houses are upwards from \$400 per month.

At Waikoloa and Puako, completely furnished apartments available by the week or the month could constitute temporary quarters for incoming families, or for visitors. Rental rates are high, but can probably be negotiated.

### Air Service

The Waimea area is served by Waimea-Kohala and Ke-ahole airports. Attachment 5 shows current service between these points and Honolulu, most frequent gateway to international flights.

Also, a limited number of flights connect Hilo and Los Angeles or San Francisco (some via Honolulu). Hilo Airport is situated 56 miles (90 km) or approximately 1 hour 15 minutes by road from Waimea.

### Temporary Offices

The committee visited the old medical center on Kawaihae Road which is offered by Parker Ranch to house temporary offices, pending completion of permanent facilities. The center consists of 2 frame structures, totalling 3,994 square feet (371 m<sup>2</sup>) in gross area, plus a large enclosed garage.

Temporary offices could be accommodated if 1) the interior of the buildings is extensively remodeled 2) available space is increased by at least 1,000 square feet (93 m<sup>2</sup>). Parker Ranch is willing to undertake the necessary remodeling according to the needs expressed by the Corporation; the extent and type of this work will govern the rental rate. Additional space could be in the form of a house moved to the site, or of portable units.

The committee believes that there are significant advantages associated with having temporary offices situated at the outset in the same area as the permanent headquarters. In particular, this would avoid additional relocation of staff in the future.

### RECOMMENDATIONS

The committee recommends that the Board:

- Designate the property offered in Waimea as the location where it desires to establish the permanent base headquarters of the Corporation.
- Propose to the other astronomical groups currently on Mauna Kea (UH, UKIRT, NASA/IRTF) to make the same designation so that the respective facilities of all users can be situated on the same grounds; obtain, if possible, the concurrence of prospective Mauna Kea users (NRAO, Austrian facility).
- Accept that UH act as lessee under the long-term arrangement proposed by R. Smart for the land, provided that firm guarantees be obtained to reserve use of the land exclusively for the establishment of headquarters for ~~current and future astronomical organizations~~  
*the CFHT and the organizations named above*
- Request the Executive Director to formulate in detail the requirements of the Corporation with respect to its own permanent establishment and to the common facilities.
- Request, in coordination with the other users, that a preliminary layout plan of the property be commissioned without delay (preferably by Parker Ranch) to determine the possible general setting of all buildings envisaged.
- Ask the Executive Director to prepare for the establishment of temporary offices in Waimea, to coincide with the move of the Project Office from Meudon and La Rochelle to Hawaii.

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June 17, 1977

Mr. Richard Smart  
Parker Ranch Office  
Kamuela, Hawaii 96743

Dear Mr. Smart:

As you know, the University of Hawaii's Institute for Astronomy has operated telescopes on Mauna Kea since 1970; additional installations under construction at present will involve the U.S. Government, France, Canada, the United Kingdom, and possibly other nations. To support the operation of these telescopes will require low-altitude facilities incorporating offices and laboratories. The groups involved in operating and constructing mountaintop telescopes are unanimous in their desire to see such support facilities in a common location. The concept currently favored is for an open association of coherently designed buildings, comprising a separate structure for each group and a central common unit incorporating a library, conference rooms, a common room, and a central computer and data-reduction area.

The Institute for Astronomy has maintained a small support operation in temporary space in Hilo, but the fact that other users of the mountain will have their telescopes in operation by 1979 has stimulated a search for a permanent location for the support facility. The long-term nature of the need and the significance of the site decision to the successful operation of the mountaintop observatories dictates that a careful search be made of all feasible locations on the Island of Hawaii. The purpose of this letter, therefore, is to inquire of your interest in the possibility of such a facility being located in Kamuela and, if you are favorably disposed to it, whether Parker Ranch would be able to assist in providing to the University suitably zoned land for this purpose.

I look forward to hearing from you.

Sincerely yours,

Fujio Matsuda

bc: Mr. Harold S. Masumoto  
Dr. John T. Jefferies

JTJ:eo



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PARKER RANCH  
KAMUELA, HAWAII 96743

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June 24, 1977

UNIVERSITY OF HAWAII  
PRESIDENT'S OFFICE

Dr. Fujio Matsuda  
President  
University of Hawaii  
Honolulu, Hawaii 96822

Dear Dr. Matsuda:

I am in receipt of your letter of June 17, 1977 regarding facilities in Kamuela for the groups involved in the operation of the Mauna Kea telescopes.

I have met with the Canada-France-Hawaii group and have discussed their plans and needs for support facilities as well as the needs for the other groups. They informed me of their plan for a facility which can incorporate space for all groups. The prospect of having such groups locating in Kamuela pleases me very much.

I stated to the Canada-France-Hawaii telescope group that I would give them a long term lease on a 6.8 acre site known as Puuloa which fronts the Mamalahoa Highway and is across from the Lucy Henriques Medical Center. I am enclosing a map of that property. In addition, I will construct the facilities needed on the property and lease them to such groups. This property is very well located in Kamuela and would accommodate extensive facilities. If it is possible, I would prefer to enter into such arrangements with the University of Hawaii and have you coordinate the use of the various facilities.

The details of this arrangement can be worked out with my attorneys. My intent would be to give the value of the land rent to these groups and receive a fair rental on the value of the buildings I construct. This would have the advantage to the groups of not having to put up any large sums of money for the construction of the facilities and receiving the use of the land free.

I would also be most pleased to assist the groups in any other way I or my staff at the Parker Ranch can.

Sincerely yours,

Richard Smart

RS:ky

Enclosure

THE PRESIDENT

UNIVERSITY OF HAWAII • HONOLULU, HAWAII 96822

July 1, 1977

Mr. Richard Smart  
Parker Ranch  
Kamuela, Hawaii 96743

Dear Mr. Smart:

Thank you for the kind offer contained in your letter of June 24, 1977, to make available urban zoned land in Kamuela and to construct facilities that can be used for astronomical research.

As suggested, it would be appropriate to have this matter discussed with your attorneys. I would appreciate your arranging to have your attorneys either call me at 948-8207 or Mr. Harold Masumoto, Director of Administration at the University of Hawaii, at 948-7069 to discuss the matter further.

Sincerely yours,

Fujio Matsuda

cc: Board of Regents' Office  
Chancellor Douglas S. Yamamura  
Director Harold Masumoto  
Dr. John Jefferies