

AGREEMENT BETWEEN:

EXHIBIT B.03f

THE SCIENCE RESEARCH COUNCIL
AND THE UNIVERSITY OF HAWAII

CONCERNING

THE CONSTRUCTION AND OPERATION OF A
3.8-METER TELESCOPE ON MAUNA KEA

Recognizing the increasing number of astronomical studies made in the infrared spectral region and the importance assigned to such observations by astronomers from the United Kingdom and from the State of Hawaii;

Recognizing the desirability of developing international cooperation in major scientific undertakings;

Recognizing the high quality of the summit area of Mauna Kea as a site for astronomical observations, particularly in the infrared;

The Science Research Council (SRC) and the University of Hawaii (UH) hereafter referred to as the Agencies, agree as follows:

1. That the Agencies, under conditions further delineated below, will design, construct and operate on Mauna Kea, Hawaii, a telescope of 3.8-meter aperture, (the "telescope") together with the laboratories, equipment and associated installations required to support this project.

2. The SRC will:

- (a) be solely responsible for, and provide the funds necessary for, the design, fabrication, operation and installation on Mauna Kea of a telescope together with a building to protect and house this equipment; will obtain

such permits for construction as shall be needed; and will provide for connection to a central electricity terminal to be provided on Mauna Kea by UH;

(b) during the construction phase, undertake to contribute towards the maintenance of the road from Hale Pohaku to the telescope which contribution shall be based on actual usage of the road by the contractors working for the SRC and, during the operation phase, undertake to contribute on an equitable basis with all other users.

(c) be responsible for insuring that the contractors working for the SRC and other SRC sponsored personnel observe such uniform regulations as are established by UH for the preservation of the environmental quality and scientific integrity of the summit area;

(d) during the term of its Sublease undertake to pay the prorata costs, including amortization of the permanent financing for offices, laboratories, accommodations and related services, provided by the UH at the mid-level facility specifically for SRC use pursuant to Section 3(f) below; such costs to be subject to a separate and future agreement;

3. The UH will:

(a) provide a Sublease to the SRC in the form attached as Exhibit A hereto. In lieu of rental, the facilities will be available to UH 15% of the time, divided between day and night over the seasons of the year and the phases of the moon in an equitable fashion. In no event shall UH cumulate more than a 9-month entitlement to its 15% of the time nor shall UH be entitled to anticipate more than 3-months entitlement to its 15% of the time. UH sponsored

personnel shall be subject to the authority of a designated SRC officer when using the facilities of SRC and SRC shall be responsible for the detailed scheduling of such time;

(b) ensure the right of access to the subleased property so that the property will not be landlocked, and to such other easements as may be deemed appropriate by UH for utilities;

(c) provide an access road having characteristics consistent with the overall plans for the development for Mauna Kea Observatory area to a boundary line of the subleased property;

(d) provide electric power at a central terminal or generator near the Mauna Kea Observatory area sufficient to meet the requirements of the SRC telescope facility up to a maximum of 75-kw. The costs of connection from the telescope site to the central terminal or generator will be paid by the SRC;

(e) make available to SRC, at no cost to UH, a telephone connection from the telescope facility to the Hawaiian Telephone Company system;

(f) undertake to construct and maintain at a mid-level site on Mauna Kea a complex of office, laboratory and apartment buildings within which, subject to 2(d) above, five (5) apartments and two townhouses, plus two laboratories of approximately 800 square feet in the aggregate, will be set aside for use by the SRC.

4. Cooperative Scientific Programs.

It is specifically envisaged that cooperative scientific programs between astronomers in the United Kingdom

and the State of Hawaii will develop, and it is the intent of the parties that these be encouraged. Accordingly, the UH, through its Institute for Astronomy, will give close and sympathetic attention to requests, from astronomers sponsored by the SRC for work on the telescope, to use space and facilities in the Institute's headquarters building on the Manoa Campus of the University of Hawaii on the basis of no profit or cost to UH, subject to the availability of such space and facilities.

5. Reimbursable Services.

Subject to continued operation of the UH astronomical facilities on Mauna Kea, UH will sympathetically consider requests from SRC to provide special services associated with the operation and maintenance of the telescope facility on a cost reimbursable basis. Through details which will be the subject of a separate agreement, UH will provide fuel at the mid-level area (subject to commercial availability), general workshop services and automobile service facilities. UH anticipates that other services and supplies to be supplied on a cost reimbursable basis, will include transportation, liquified gases (particularly helium), certain communications, telephone and telex services, administrative facilities, along with the supervision of staff and services required for the maintenance of the telescope facility and its associated specialized systems. At the request of SRC, such special services as may be provided by UH for its sublessees or other users of the Mauna Kea Observatory shall be made available to SRC on an equitable basis.

6. Temporary Facilities.

The SRC may at its own expense construct a temporary building at a mid-level site to house contractors

and SRC sponsored personnel during the period prior to completion by UH of the mid-level facilities provided for in Section 3(f) above, subject to the same approval procedure required under Section XII of the Sublease.

7. General Liability.

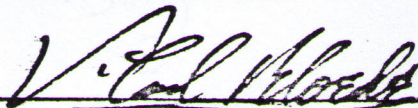
The parties shall each at all times with respect to the areas and activities subject to this Agreement use due care for safety and each shall be liable to the other for any loss liability, claim or demand for property damage, personal injury or death arising out of any injury, death, or damage caused by or resulting from any negligent activities, operations or omissions by such party subject to the laws of the State of Hawaii governing such liability.

8. Disputes.

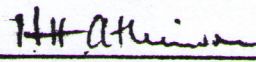
Disputes under this Agreement shall be subject to the same provisions and procedures as provided in Mutual Covenants I and II of the Sublease.

This Agreement is intended to be legally binding upon and inure to the benefit of the parties and their respective successors and assigns in accordance with the provisions of Hawaii law.

UNIVERSITY OF HAWAII

By 
Its Contracts Officer

SCIENCE RESEARCH COUNCIL

By 
Its H H Atkinson
Head. ASR Division

GUARANTEE GIVEN ON BEHALF OF
HER MAJESTY'S GOVERNMENT IN THE UNITED KINGDOM
TO THE BOARD OF LAND AND NATURAL RESOURCES OF
THE STATE OF HAWAII

WHEREAS the University of Hawaii (hereinafter called the sub-lessor) and the Science Research Council (hereinafter called the sub-lessee) propose to execute a sub-lease agreement in the terms of the draft set out in the Schedule hereto (hereinafter called the sub-lease):

AND WHEREAS the sub-lease requires the approval of the Board of Land and Natural Resources of the State of Hawaii (hereinafter called the Board) pursuant to the requirements of item 5 of General Lease S-4191 between the State of Hawaii by the Board and the University of Hawaii dated 21st June 1968, which approval was given on 18th November 1977 subject to the Board obtaining such a guarantee as is contained herein:

NOW, THEREFORE, subject to the sub-lease being executed by the sub-lessor and the sub-lessee within three months of the date hereof and in the event of the sub-lessee becoming liable under and as mentioned in clause XIII of the sub-lease to restore the demised premises and to repair damage, the Secretary of State for Education and Science, on behalf of Her Majesty's Government in the United Kingdom, hereby guarantees to the Board the due discharge of that liability.

Given under the Official Seal of the Secretary of State for
Education and Science on 18th July 1978.

Shirley Williams

Secretary of State for
Education and Science.