# TRIPARTITE AGREEMENT <br> CHARTER OF INCORPORATION BYLAWS 

TRIPARTITE AGREEMENT

## CHARTER OF INCORPORATION BYLAWS

Canada - France - Hawaii Telescope Corporation Société du Télescope Canada - France - Hawaii

## -1-

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CONCERNING
THE CONSTRUCTION AND OPERATION OF
A LAARGE OPTICAL TELESCOPE ON MAUNA KEA

Recognizing the increasing development of astronomical research and the quality and the quantity of related scientific work carried out in the universities and specialized research centres of Canada, France, and Hawaii.

Considering the need for instruments to be available for use by the astronomers of Canada. France and Hawaii.

Considering the desire of the astronomers of Canada, France and Hawaii to carry on cooperative programmes of research.

Considering the desirability of developing international cooperation in large-scale scientific undertakings,

- The National Research Council of Canada (NRC)
- The Centre National de la Recherche Scientifique (CNRS)
- The University of Hawaii (UH)
hereinafter referred to as the Agencies, having obtained the approval as appropriate of their respective governments, that is those of Canada, of France, of the United states of America and of the State of Hawaii, agree:


## I - GENERAL PROVISIONS

1. That the NRC, CNRS, and UH will establish under Hawaii law a corporation to be named the canada-France-Hawaii Telescope corporation, to design, construct and operate on Mauna Kea, Hawaii, a large optical telescope of 3.6 meter aperture along with laboratories, equipment, and associated installations, which will remain the exclusive property of the Corporation during the existence of the Corporation.
2. The Corporation will be directed by a Board of Directors assisted by a Scientific Advisory Council.
2.1 The Board of Directors shall be composed of:

> - 4 members appointed by NRC
> - 4 members appointed by CNRS
> - 2 members appointed by UH

The Board of Directors shall be responsible for coordina-

 telescope the astronomers.

It is responsible for the use of the funds of Corporation.

Its decisions will be taken by majority vote, provided there is a quorum and that at least one of the directors named by each agency joins in that majority.

If the need arises the chairman may take action between meetings of the Board as specified in the bylaws.


- members designated by NRC
- 4 members designated by CNRS
- 4 members designated by UH
and up to 4 other members to be named by the Board of Directors.
It meets at least twice per year.
 recommendations to the board of directors and the Executive Director on scientific and technical matters relevant to aims of the corporation.

3. For the duration of the construction phase. management of the telescope project is phaced under ther direction of a Project officer and an Associate project officer appointed by the Board of Directors on the nomination of and CNRS.

The Project officer and the Associate Project officer will be jointly responsible to the Board of Directors for carrying out the design and construction activities. In particular, they must ensure that the equipment provided satisfies the requirements for its intended use.

The Project Officer and the Associate Project officer may attend meetings of the Scientific Advisory Council. On occasion the council may deliberate without their presence, if it so wishes. Before these meetings the Project officer will send to the Scientific Advisory Council a report on work in progress or completed within the scope of the project.

The responsibilities of the Project officer and Associate project officer and the organization and working procedures of the Project Office are detailed in Annex A.
4. The powers necessary for the management of the Corporation shall be delegated to an Executive Director and to an Associate Executive Director appointed by the Board of Directors upon the proposal of NRC and CNRS following their consultation of UH .

The authority and the duties of the Executive Director and of the Associate Executive Director are defined in the bylaws.
5. During the construction phase and in any case as long as it deems it necessary, the Board of Directors may name the Project Officer, Executive Director of the Corporation, and the Associate Project Officer. Associate Executive Director.
6. All senior employees of the corporation shall be appointed by the Board of Directors in such a manner as to reflect the interests of the Agencies.
7. The Director of the Institute for Astronomy of UH has the authority to ensure that all persons on property over which the Institute has jurisdiction abide by the general rules and regulations of the Institute.

## II- FINANCIAL PROVISIONS

8. That the total capital cost, exclusive of taxes and duties, and including components and studies already in existence, will be 91 million French Francs (as estimated on February 1. 1973, providing the construction commences in 1973 and is completed by 1977). The general technical characteristics of the project are given in Annex $B$.

NRC and CNRS will equally share responsibility for providing to the corporation the work, components and sums necessary for the construction of the telescope, its basic instrumentation, its dome and associated buildings. NRC and CNRS will also equally share the cost and jointly assume responsibility for the design of the telescope.

As soon as the Corporation is formed, the Corporation will take the steps necessary to assume any and all contractual obligations previously assumed by NRC and CNRS and to enter into all further contractual obligations necessary for the completion of this project.

In as equal a fashion as possible, maximum use will be made of French and Canadian industrial capacity in the design and construction of the telescope, its basic instrumentation, its dome and associated buildings, and in the production of high-technology components.
9. The University of Hawaii will
9.1 furnish a sub-lease at no cost to the Corporation until the year 2033 for part of the land UH now holds under Lease Number 54191 from the State of Hawaii, the boundaries of which are shown on the site plan, dated 15 December 1973, attached as Annex C. The University of Hawaii also agrees to seek from the State the renewal or extension of its Lease during the life of the Corporation and, if received, to renew or extend the Corporation's sub-lease for the life of the Lease or the life of the Corporation whichever is shorter.
9. 2 construct and maintain an access road - having characteristics consistent with the overall plan for the development of the Mauna Kea Observatory area - to a boundary line of the sub-leased property.
9.3 construct an electric power line to a central terminal near the Mauna Kea Observatory area, of sufficient capacity to meet the requirements of the projected installations of the Corporation (approximately 350 kW ), and grant to the Corporation access to this power through an easement over UH leased land. The cost of connection from the telescope site to the central terminal, and of electric power, are to be paid by the Corporation.
9.4(a) undertake to construct at the earliest possible date, maintain, and operate at a mid-level station:

- l office of approximately 15 square meters area for the exclusive use of Corporation-sponsored personnel,
- 15 bedrooms, each with private bathroom, for the use of personnel sponsored by the Corporation; however, they will be at the disposition of $U H$ when not required by the Corporation,
- a data analysis laboratory of approximately 110 square meters which will be available for use by the Corporation on a shared basis with UH and other users of the summit,
- a photographic darkroom and a photographic storage area, use of which will be shared between the Corporation and UH.

The Corporation will be charged on a basis to be agreed for operating costs incurred by $U H$ in connection with the facilities provided under this sub-section on a cost recoverable basis, with no participation of the corporation in amortization. the 10.1 That after the completion contribute funds to cover the expenses budgeted by the Corporation up to 3.85 million dollars US in 1 January 1984 dollars, with appropriate provision for variations in the cost of living. The contribution of UH shall be of 400,000 dollars in 1 January 1984 dollars, provided that the said contribution shall not represent more than $15 \%$ of the Corporation's budget. The remainder will be shared in equal proportion by NRC and CNRS.

In addition to the foregoing, NRC and CNRS shall each provide 3 astronomers and the UH shall provide lastronomer to
10.2 NRC and CNRS will respectively support directly or through the Corporation Canadian and French staff working within the frame-work of the Project office. Other expenses of the Project Office will be shared equally by NRC and CNRS.

With this aim in view special operating funds will be provided by NRC and CNRS to the Corporation upon the recommendation of the Board of Directors.
11. Personnel hired by the corporation will be paid by the Corporation. The schedule of basic salaries will be consistent with that in use at UH.
12. It is understood by the Agencies that the applicable laws of the state of Hawaii currently accord relief from state corporate, income, real estate and excise taxes to non-profit corporations registered exclusively in the state of Hawaii.

It is further understood by the Agencies that the non-profit corporation referenced in this agreement will benefit from these facilities and that the UH will undertake to use its best efforts to ensure the continued availability of these benefits to the corporation.

## III - FINAL PROVISIONS

13. That in consideration of their respective contributions, the three Agencies will receive equitable interest in the corporation as follows:

| NRC | $42.5 \%$ |
| :--- | :--- |
| CNRS | $42.5 \%$ |
| UH | $15.0 \%$ |

14. That their respective contributions entitle the Agencies to averaged observation time in the following proportions:

| NRC | $42.5 \%$ |
| :--- | :--- |
| CNRS | $42.5 \%$ |
| UH | $15.0 \%$ |

provided that the conditions specified in Article 9 have been fulfilled. Until the conditions specified in Article 9 are met, the proportions shall be:

| NRC | $44 \%$ |
| :--- | :--- |
| CNRS | $44 \%$ |
| UH | $12 \%$ |

Only applications for observation time which are sponsored by a member of the Corporation shall be submitted to the Corporation for consideration.

Transfer by a member of the corporation of part of its observation time to a third party (other than a scientific agency within that member's own country) can only take place with the unanimous agreement of the Directors present at the meeting when this proposal is discussed and upon the advice of the Scientific Advisory Council.
15. The Agencies must attempt as much as possible to resolve amicably any dispute concerning the interpretation or application of this agreement.

If the dispute cannot be settled amicably, it shall be submitted to a tribunal of arbitration constituted as follows: each Agency shall appoint two members; these members shall propose a 7 th member as chairman; his appointment shall be jointly confirmed by the Agencies.

All members of the tribunal shall be appointed within two months after any Agency has informed the other Agencies that it wishes to submit the dispute to a tribunal of arbitration. At the end of this period any Agency may request the Director General of the United Nations Educational, Scientific and Cultural Organization to make the appointments not yet effected.

The tribunal shall determine the place where it shall sit, its own procedures and all other administrative matters. A decision shall be taken by a simple majority vote within three months from the date of its establishment.

The tribunal shall transmit a certified copy of its decision to each Agency.

Each Agency shall bear the costs for the members it appoints to the tribunal of arbitration. The costs of the chairman as well as those entailed by the arbitration procedure shall be borne in equal parts by the agencies unless the tribunal otherwise decides.

The decison of the tribunal shall be final and binding on the Agencies.
16. That, after the completion of the construction of the telescope and the laboratories, equipment and installations necessary for its operation and in any case not more than five years from the date of the signature of this agreement, authorized representatives of the Agencies shall meet to examine if it would be required to propose modifications to the
text of this agreement. Thereafter such a revision will be possible every three years upon the express request of one of the Agencies.
17. That, the Agencies taking into account any recommendation of the Board of Directors, shall select the method of dissolution of the Corporation.
18. That, this agreement shall come into force when the authorized representatives of the three Agencies have duly signed the original texts of the agreement.

Signed in six copies, three in English and three in French, the texts in both languages having equal validity.
at ottawa on 24 May 1974
by $\quad$ W.G. Schneider
for the National Research Council of Canada
at st. Michel on 20 June 1974
by $\quad P$. Creyssel
for the Centre National de la Recherche Scientifique
at Honolulu on 31 May 1974
by J.T. Jefferies
for the University of Hawaii

## ANNEX A

RESPONSIBILITIES OF THE PROJECT OFFICER AND OF THE
ASSOCIATE PROJECT OFFICER; ORGANIZATION AND WORKING

## PROCEDURES OF THE PROJECT OFFICE

1.4 The first Project Officer shall be proposed by CNRS and the first Associate Project officer by NRC. Should the Project Officer be unable to carry out his duties for any reason whatever the Associate Project Officer will replace him. A new Associate Project officer will be immediately appointed.
2. ORGANIZATION OF THE PROJECT OFFICE
2.1 The Project Officer and the Associate Project officer will be assisted at all times in their work by the required engineers, technicians and administrative staff. They, and such personnel, will constitute the project office placed under the direction of the Project officer.
2.2 The composition of the Project office will be as follows:

- a Project Officer
- an Associate Project Officer
- a Chief Engineer provided by CNRS
- a Chief Engineer provided by NRC
- two to four full-time engineers, or their equivalent,
- two to four full-time engineers, or their equivalent, provided by NRC
- two to four employees, according to the needs expressed by the Project officer, who will either be provided by NRC or CNRS, or paid by the Corporation out of funds provided equally by those two agencies.

On the recommendation of the Board of Directors to the agencies, new staff positions may be created within the Project office if necessary.
2.3 The Project office is to be located in Paris; it will remain there until some contrary decision is taken by the Board of Directors.
2.4 There will be only one Project office but local branches may exist in the country, or countries, where the project Office must be represented. In such cases, the Board of Directors will decide on the locations and will seek the assistance of the agencies concerned.
2.5 If the project officer feels that help is needed, either in personnel or in equipment, he may ask for it from NRC and from CNRS following the agreement of the chairman of the Board of Directors.
2.6 The annual expenses connected with the operation of the Project office and of its local branches shall not exceed one million French francs, estimated on 1 February 1973, excluding salaries and attached benefits of staff listed in
paragraph 2.2 above, during the construction phase. These expenses should be recorded in a special account distinct from those related to the construction budget of the telescope and the operation budget of the corporation.
2.7 The Project officer will send to the Board of Directors for each of its regular meetings:

- a report on the progress of the work and, in particular, on the distribution of contracts between France, Canada and other countries.
- a report on the Project Office's own budget and on the budget for construction of the telescope.

3. WORKING PROCEDURES OF THE PROJECT OFFICE

The working procedures of the Project office and the procedures for opening tenders and awarding contracts will be determined by the Board.
4. CONTRACT DISTRIBUTION
4.1 A table of the projected distribution of contracts has been established and is shown in Appendix I.
4.2 The Board of Directors and the Project officer should observe the details of this table as accurately as possible.
4.3 Should it be impossible to observe the detailed figures of this table, the Board of Directors will amend the distribution so as to reestablish the overall balance originally planned and obtain the approval of NRC and CNRS.

## APPENDIX TO ANNEX A

TABLE OF PROJECTED DISTRIBUTION OF CONTRACTS
Expenses in MF which will be made, in principle

|  | $\operatorname{in}_{\text {Canada }}$ | $\begin{aligned} & \text { in } \\ & \text { France } \end{aligned}$ | After international bidding | $\begin{gathered} \text { Certainly } \\ \text { Foreign } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| Studies | 1.0 | 4.1 |  |  |
| Mirror blanks |  |  |  | 5.0 |
| Mirror Polishing | 2.0 |  |  |  |
| Telescope mechanism | 1.8 | 12.5 |  | 1.7 |
| Telescope drives |  | 1.0 |  |  |
| Telescope controls | 1.5 |  |  |  |
| Aluminizing tank |  | 1.5 | bric 5 |  |
| Instrumentation | 3.2 | 8.0 |  | 1.5 |
| Telescope building | 3.0 |  | 7.8 |  |
| Dome | 10.0 |  |  |  |
| Auxiliary building |  | +40.0.0 | 4.7 |  |
| Field costs |  |  | 6.1 |  |
| Handling equipment | 2.8 |  |  |  |
| Workshop and laboratory equipment | 1.8 |  |  |  |
| Offices and housing |  |  | 2.0 |  |
|  | $\overline{27.1}$ | $\overline{27.1}$ | $\overline{20.6}$ | 8.2 |
| Total | 83.0 |  |  |  |
| Miscellaneous and contingency | 8.0 |  |  |  |

## ANNEX B

TECHNICAL CHARACTERISTICS OF THE

## PROPOSED TELESCOPE

## OPTICAL PARAMETERS

The telescope will have a primary mirror of Cer-Vit material of outside diameter 3.60 metre and will have a focal length corresponding to an aperture ratio of approximately 3.8 , and the figure of the primary mirror will be parabolic.

The telescope will have several secondary mirrors, the largest of which will give an effective aperture ratio of approximately 8.0 at the Cassegrain focus.

Other secondary mirrors will provide coudé foci and an infra-red Cassegrain focus. Other Cassegrain mirrors may be added later.

## MECHANICAL DESCRIPTION

The mounting will be of the "horse-shoe" type similar to the well-known Palomar 200" telescope which is of proven design and very suitable to low latitudes. However, modern developments such as upper-end exchanges and computer controlled devices will be included.

## INSTRUMENTATION

Appropriate instrumentation to carry effective astronomical research at the frontier of astronomy will be provided.

## ENCLOSURE

The telescope will be enclosed in a dome and supported on a suitable pillar which will also support the coudé spectrograph. The workshop, laboratories and other necessary facilities required will be in the telescope building.

# TRIPARTITE AGREEMENT AMONG NRC, CNRS AND UH 

ORIGINAL LANGUAGE OF THE PROVISIONS MODIFIED BY AMENDMENT NO. 1 OF 11 JULY 1980
[In the revised text, the modified sections are indicated by the symbol 1 in the margin]
2.2 The Scientific Advisory Council shall be composed of:

- 4 members appointed by NRC
- 4 members appointed by CNRS
- 2 members appointed by UH
and up to 4 members to be named by the Board of Directors.
It meets at least twice per year.
This Council shall be responsible for making recommendations to the Board of Directors and the Executive Director on scientific and technical matters relevant to the aims of the corporation.
9.3 construct an electric power line to a central terminal near the Mauna Kea Observatory area, of approximately 750 KW capacity to meet the requirements of the projected installations of the corporation (approximately 350 KW ) and the presently anticipated needs of the existing UH installations and to grant to the corporation access to this power through an easement over UH leased land. The cost of connection from the telescope site to the central terminal, and of electric power, are to be paid by the corporation.
9.4(a) construct at a mid-level station two family dwellings with a total area of approximately 220 sq.m. for exclusive use by permanent personnel associated with the corporation. In the same general area, uH will also construct an office and laboratory building. This structure is presently expected to contain 10 offices - of which 5 (containing addition, a data sq.m. will be made available to the corporation. In darkrooms are contemplated, and two Corporation on an equitable basis between which will be accorded to the corporation on an equitable basis between the UH and the corporation.

These facilities will be maintained by $U H$. The corporation will, however, be charged on an equitable basis for operating costs incurred by UH in providing such facilities on a basis of no profit or loss
to the UH and no participation of the Corporation in amortization.
(b) undertake to provide at the same mid-level station, dormitory type living accommodations (including kitchen and dining facilities) sufficient to meet the combined needs of the University and the Corporation. The UH will assume responsibility for construction, subsequent operation and maintenance with the understanding that the pro rata costs of providing these accommodations, including amortization, shall be charged direct to the individual who uses them.
(c) obtain for the Corporation, should the need arise, authority to construct on the mid-level area additional offices, laboratories and housing on condition that such construction be undertaken within five years from signature of this agreement, that financing be arranged by NRC and CNRS, and that the proposed style, materials, and location of such building be approved by the state and the University of Hawaii.
9.5 furnish approximately 75 sq.m. of office space to the Corporation, for its permanent staff, in the new buildings of the Institute for Astronomy on the Manoa campus. This space will be maintained by the UH and all operating costs will be charged to the corporation on a basis of no profit to the UH.
9.6 place at the disposition of visiting astronomers using the CFH Telescope, two offices in the Manoa campus building, and afford to them the same facilities as those available to the members of the staff of the Institute for Astronomy, on a basis of no profit to the UH.
11. Personnel hired by the corporation will be paid by the Corporation. The schedule of salaries will be that in use at the UH.

If the Corporation deems it necessary, the UH will assist the Corporation in arranging through an appropriate organization for payment of salaries and granting of social benefits to employees of the corporation.

# ORIGINAL LANGUAGE OF THE PROVISIONS MODIFIED BY AMENDMENT NO. 2 OF 25 SEPTEMBER 1985 <br> [In the revised text, the modified <br> sections are indicated by the symbol 2 in the margin] 

10.1 That after the completion of the construction phase, the Agencies will annually contribute funds to cover the expenses budgeted by the Corporation up to one million dollars uS, as estimated on February 1 , 1973, with appropriate provision for variations in the cost of living, in the proportion of NRC $42.5 \%$, CNRS $42.5 \%$, and UH $15 \%$

These funds will be assigned to cover necessary operating expenses of the Corporation (in particular, meetings of the Board of Directors and the Scientific Advisory Council, staffing and operating the telescope) and for developing further the instrumentation of the telescope.

Similar costs which will be incurred before the end of the construction phase, will be shared in the same proportions; however, in consideration of the other contributions by UH, no cash contributions will be required from UH before July 1, 1975.

The date on which the construction phase will be considered as completed will depend on the date set for commencement of the telescope's normal operation. This date of completion of the construction phase will be determined by the Board of Directors in agreement with each of the Agencies.
14. That their respective contributions entitle the Agencies to averaged observation time in the following proportions:

| NRC | $42.5 \%$ |
| :--- | :--- |
| CNRS | $42.5 \%$ |
| UH | $25.0 \%$ |

Only applications for observation time which are sponsored by a member of the Corporation shall be submitted to the corporation for consideration.

Transfer by a member of the corporation of part of its observation time to a third party (scientific agencies in countries other than France, Canada or the USA) can only take place with the unanimous agreement of the Directors present at the meeting when this proposal is discussed and upon the advice of the Scientific Advisory Council.

ARTICLES OF THE CHARTER OF INCORPORATION OF THE CANADA-FRANCE-HAWAII TELESCOPE CORPORATION

## ARTICLE ONE

## NAME AND ADDRESS

The name of this nonprofit corporation shall be "The Canada-France-Hawaii Telescope Corporation", and the post office address of its principal office shall be Institute for Astronomy, 2840 Kolowalu Street, Honolulu, Hawaii 96822.

## ARTICLE TWO

## DURATION

The period of duration of this nonprofit corporation shall be perpetual.

## ARTICLE THREE

## PURPOSE

The purpose for which this corporation is organized is to design, construct and operate a major astronomical installation including a 3.60 meter optical telescope on Mauna Kea on the Island of Hawaii; to increase knowledge and understanding of the universe by the observation and study of the heavenly bodies and by all other astronomical research; to promote all educational and scientific pursuits by encouraging, initiating, aiding, developing and directing scientific studies and research in the field of astronomy and the related sciences, by encouraging and aiding in the education and training of persons to direct such studies and research, by furnishing the resources, methods, and infrastructure required for the pursuit of the studies and research in question, by assisting in the dissemination of knowledge, by encouraging the establishment and maintenance of staff positions, fellowships, scholarships, publications, lectures, and other means of acquainting the public with the results of such studies and research; and by all other acts reasonably designed to promote the above purposes in the interest of promoting the general welfare of humanity.

## ARTICLE FOUR

## NONSTOCK CORPORATION

The corporation is established for scientific and educational purposes only. It is not established for profit and will not issue any stock and no part of its assets, income or earnings shall ever inure to or for the benefit of or be distributable to its members, directors, officers, or other private persons, except that the corporation shall be empowered to pay reasonable compensation for services rendered and, to make payments and distributions in furtherance of the exempt purposes for which it was formed.

## ARTICLE FIVE

## MEMBERS OF CORPORATION

The founding members of the corporation are the National Research Council of Canada, the Centre National de la Recherche Scientifique of France, and the University of Hawaii who shall appoint the initial directors in accordance with Article Six. After completion of the construction phase as determined by the Board of Directors in agreement with each of the members of the corporation, the Board of Directors may recommend the addition of a new member and the conditions thereof. Such addition requires the unanimous assent of the then existing members and becomes effective when the Governments of each of the parties shall have expressed, through diplomatic channels, their approval of such membership.

## ARTICLE SIX

## DIRECTORS

Except as otherwise provided in this Charter or in the bylaws of the corporation, the affairs of the corporation shall be under the general management and control of the Board of Directors. The number of directors is initially fixed at ten; they are appointed and may be removed by the members of the corporation as follows: four by the National Research Council of Canada, four by the Centre National de la Recherche Scientifique of France, and two by the University of Hawai, in the manner provided for in the bylaws. The names and residence
addresses of the persons appointed as the initial directors are:

Names
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
W. M. ARMSTRONG

RENE AUDE

PIERRE CREYSSEL

JEAN DELHAYE

CHARLES FEHRENBACH

WYTZE GORTER

JOHN T. JEFFERIES
L. KERWIN

JOHN L. LOCKE
D. A. MACRAE

## Residence Addresses

2194 W. 57 th Avenue Vancouver, B.C., Canada

16, rue Charles Desvergnes 92 Meudon, France

25, boulevard Saint Germain 75007 Paris, France

2, rue de la Pléiade
94240 L'Haye Les Roses, France
Les Magnanarelles 84160 Lourmarin, France

4351 Aukai Avenue
Honolulu, Hawaii 96816
2872 Pacific Heights Road Honolulu, Hawaii 96813

2166 Parc Bourbonnière Sillery Québec, P.Q., Canada

672 Courtenay Avenue Ottawa, Ont.. Canada

Observatory House David Dunlap Observatory Richmond Hill, Ont., Canada

## ARTICLE SEVEN

QUORUM AND VOTING
The Board of Directors has the power to function whenever there are sufficient directors présent to constitute the quorum as provided in the bylaws of the corporation.

Except as otherwise provided in the bylaws, the board's decisions are made by a simple majority of the directors present at a meeting at which a quorum is present and require the concurrence of at least one of the directors appointed by each of the members of the corporation.

## ARTICLE EIGHT

## CORPORATE OFFICERS

The Board of Directors shall elect a Chairman, Vice Chairman and a Secretary from among its number as provided for in the bylaws of the corporation. The Board of Directors may elect from among its number such additional corporate officers as it may deem to be in the best interests of the corporation. Two elective offices, the duties of which do not conflict, may be held by the same person.

Members of the Board of Directors holding an office shall be vested with such authority as may be conferred on them by the bylaws or as may from time to time be conferred on them by the Board of Directors.

The names and residence addresses of the initial elective officers are:

| Chairman: | W.M. Armstrong | 2194 W. 57 th Avenue <br> Vancouver, B.C., Canada |
| :--- | :--- | :--- |
| Vice Chairman: | Pierre Creyssel | 25, blvd. Saint Germain <br> 75007 Paris, France |
| Secretary: | John L. Locke | 672 Courtenay Avenue |
| Ottawa, Ont. Canada |  |  |

The Board of Directors may also appoint such corporate officers as it may deem to be in the best interests of the corporation; these appointed officers shall have the authority and shall perform such duties as may be prescribed by the Board of Directors.

## ARTICLE NINE

ANNUAL EXHIBIT
The Board of Directors shall submit to the members of the corporation at least once per annum a full and accurate exhibit of its affairs including a duly audited financial statement as provided for in the bylaws of the corporation.

## ARTICLE TEN

## LANGUAGES

The English and French languages shall have equal status in the operations of the corporation.

## ARTICLE ELEVEN

## AMENDMENTS

The Charter may be amended in the manner provided by the statutes of the State of Hawaii at the time of the amendment, provided however, that it shall have received the unanimous approval of the members of the corporation.

## ARTICLE TWELVE

## DISSOLUTION

In the event of dissolution, the affairs of the corporation shall be wound up in the manner provided for in the bylaws, provided further, that upon dissolution, all of the assets of the corporation after payment of its just debts shall be transferred or distributed to the founding members as defined in Article Five or to the governments of Canada, France and Hawaii which established them to be used for public purposes only or to a nonprofit fund, foundation or corporation, which is organized and operated exclusively for charitable, educational, or religious and/or scientific purposes and which has established its tax-exempt status under Section 501(c)(3) of the Internal Revenue Code of 1954.

## ARTICLE THIRTEEN

OTHER ACTIVITIES PROHIBITED
Notwithstanding any other provisions of these Articles, the corporation shall not carry on any other activities not permitted to be carried on by a corporation exempt from Federal income tax under Section $501(c)(3)$ of the Internal Revenue Code of 1954.

The Charter of Incorporation was granted by the Director of Regulatory Agencies, State of Hawaii, on 8 January 1974. A Certificate of Amendment was approved on 17 December 1975.


# BYLAWS OF THE <br> CANADA-FRANCE-HAWAII TELESCOPE CORPORATION 

BYLAW 1

## CORPORATE NAME AND OFFICES

The name of this non-profit corporation shall be the Canada-France-Hawaii Telescope Corporation, and the post office address of its principal office shall be Kamuela, Hawaii 96743, U.S.A.

The Corporation may have such other offices, either within or without the State of Hawaii, as the Board of Directors may determine from time to time.

BYLAW 2
MEMBERS
Section 2-1. Founding Members. The Founding members of the Corporation are the National Research Council of Canada (NRC), the Centre National de la Recherche Scientifique of France (CNRS) and the University of Hawaii (UH), hereinafter referred to as members of the Corporation or members.

Section 2-2. Addition of New Members. After completion of the construction phase as determined by the Board of Directors in agreement with the members of the Corporation, any corporation, association or organization interested in becoming a member of the Corporation shall submit in writing a signed application in a form approved by the Board of Directors, to the secretary of the Board. Each application so received shall be considered by the Board at a regular or special meeting of the Board which shall recommend approval or disapproval of the applicant to the members. The Board of Directors shall set forth such conditions for membership as they deem to be in the best interest of the corporation. Any applicant whose application is recommended for approval shall become a member of the corporation only after the application has received the unanimous concurrence of the then existing members and their respective governments as communicated through official channels.

Section 2-3. Transfer of Membership. Membership in the Corporation is not transferable.

Section 2-4. Action by Members. Any action required by the laws of Hawaii to be taken by the members may be taken without a meeting if consent in writing is given by each member with respect to the relevant subject matter and notice thereof is given to all members by the secretary of the Board.

## BYLAW 3

## THE BOARD OF DIRECTORS

Section 3-1. General Powers and official Name. The affairs of the Corporation shall be under the general management and control of the Board of Directors. The official name of the Board shall be "Board of Directors of the Canada-France-Hawaii Telescope Corporation."

Section 3-2. Number, Appointment and Tenure of Directors. The number of directors shall be ten, of whom four are appointed and may be removed by the NRC, four by CNRS and two by the UH.

Directors appointed by NRC and CNRS need not be residents of the state of Hawaii.

Section 3-3. Regular Meetings. The Board of Directors shall meet twice a year in regular meetings.

Section 3-4. Special Meetings. The chairman shall convene special meetings of the Board of Directors whenever five or more directors so request, stating in writing the reasons for the request. The chairman may also convene special meetings of the Board whenever he deems it necessary.

Section 3-5. Notice. The date and place of each meeting of the Board of Directors are set by the chairman or by resolution of the Board. Notices of each meeting, regular or special, are to be transmitted by the most expeditious means to each director not less than one month nor more than three months before the date fixed therefor, together with a general statement of the agenda for the meeting.

Section 3-6. Quorum. Two directors appointed by NRC, two directors appointed by CNRS, and one director appointed by UH constitute a quorum of the Board of Directors, but if less than a quorum is present during a meeting a majority of the directors present may adjourn the meeting.

Section 3-7. Board Decisions. The act of a majority of the directors present at a meeting at which a quorum is present shall be the act of the Board of Directors, provided, that at least one of the directors appointed by each of the members of the Corporation joins in that majority.

Section 3-8. Non-deleqable Authority. The Board of Directors shall not delegate authority for any of the following acts of management:
a) the annual budget, and the establishment and revision of staff positions;
b) the overall personnel system including job classifications, wages, and benefits;
c) employment and discharge of permanent senior personnel;
d) the granting and revocation of powers of attorney;
e) cooperative arrangements with international institutions or with institutions or organizations of third countries;
f) the annual closing of the books;
g) the giving of financial guarantees or security, borrowing, or acquiring interest, real or personal, in any other organizations;
h) the filing of lawsuits;
i) the issuance of directives covering reimbursement of travel and moving expenses;
j) transactions involving an amount in excess of that stipulated by the Board or by these bylaws.

Section 3-9. Vacancies. Any vacancy occuring in the Board of Directors shall be filled by that member of the Corporation responsible for appointing the directorship now vacant. A director appointed to "fill a vacancy shall serve for the unexpired term of his predecessor.

Section 3-10. Compensation. Directors shall not receive any payment or emolument for their duties as members of the Board; however travel expenses in connection with the work of the Board shall be reimbursed in a manner to be decided by the

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Section 3-11. Action taken between Meetings. If the need arises, the chairman may take action on behalf of the Board. without convening a meeting of the Board, provided he receives the concurrence of two directors appointed by NRC, two directors appointed by CNRS, and one director appointed by UH, and thereafter informs all directors in writing setting forth specifically the action so taken by him and the names of the concurring directors. A report on such action will be made at the next meeting of the Board.

Section 3-12. Closed Meetings. Meetings of the Board of Directors are not open to the public. The chairman and the vice-chairman of the Scientific Advisory Council, the executive director and others may upon invitation by the chairman of the Board attend meetings of the Board.

Section 3-13. Minutes of Meetings. Signed copies in English and in French of the minutes of each meeting of the Board of Directors are to be transmitted to the Board for approval within one month after the meeting.

The members of the Board are deemed to have approved the minutes if no comments are received by the secretary within two months after the date of the meeting.

When the minutes are not so approved, they must be gubmitted to the Board at its next meeting for approval, and thereafter transmitted in approved form to the members of the Board.

Section 3-14. Committees. The Board of Directors may establish committees for the purpose of formulating recommendations to or taking decisions on behalf of the Board in accordance with such conditions as may be laid down by the Board.

## BYLAW

## OFFICERS

Section 4-1. Elected Officers and Terms of Office. The Board of Directors shall elect from among its number an initial chairman, vice-chairman, secretary and treasurer of the Board at the first regular meeting of the Board who shall serve until January 1 of the next year. Subsequent officers shall be elected at the second regular meeting of the Board every other year. Such subsequent officers shall serve 2 -year terms of office from January 1 of the year following their elections. The Board may elect such other officers as it may deem desirable at any meeting of the Board. No elected officer may serve two consecutive terms in the same office.

Section 4-2. Appointed Officers and Terms of Office. The Board of Directors shall appoint an executive director and an associate executive director, who are not members of the Board. At any meeting, the Board may appoint such other officers as it may deem desirable. The terms of appointment are set by the Board upon agreement with the officers concerned. The appointments may not exceed five years but may be renewed.

Section 4-3. Vacancies and Removal. In the event of a vacancy in any elective office provided for under section 4-1, the Board may elect a successor for the unexpired portion of the term.

Any officer appointed by the Board of Directors under section $4-2$ may be removed by the Board whenever in its judgement the best interests of the Corporation would be served thereby.

Section 4-4. Powers and Duties. The elected and appointed officers of the Board of Directors have such powers and perform such duties as may be assigned to them by the Board, including but not limited to the powers enumerated hereunder.

Section 4-5. The Chairman. The Board of Directors shall elect every other year a chairman of the Board who must be a member of the Board appointed by NRC or CNRS.

A chairman elected from among the directors appointed to the Board by NRC shall succeed a chairman elected from among the directors appointed by CNRS and vice versa.

The chairman presides over the meetings of the Board and performs such duties as are assigned to him by the Board.

If the chairman should definitely cease to exercise his functions before the end of his term of office, he is, until the end of his term of office, replaced by a new chairman elected from among the directors appointed by the same member of the Corporation.

Section 4-6. The Vice-Chairman. The Board of Directors shall elect every other year a vice-chairman who must be a member of the Board.

If the chairman is elected from among the directors appointed to the Board by NRC, the vice-chairman must be elected from among the directors appointed by CNRS and vice versa.

The vice-chairman acts as chairman whenever the latter is temporarily unable to perform his duties.

He assists the chairman as may be required by the Board or the chairman.

If the vice-chairman should definitely cease to exercise his functions before the end of his term of office, he is, until the end of his term of office, replaced by a new vice-chairman elected from among the directors appointed by the same member of the Corporation.

Section 4-7. The Secretary. The Board of Directors shall elect every other year a secretary who must be a member of the Board. The secretary prepares or has prepared, signs and has custody of the minutes of the meetings of the Board. He has custody of the corporate seal. He has the authority and performs such other duties as may from time to time be specified in resolutions or other directives of the Board.

Section 4-8. The Treasurer. The Board of Directors shall elect every other year a treasurer who must be a member of the Board. The treasurer is responsible for the care, custody and utilization of the funds of the Corporation. To that effect, he shall perform all the duties incident to his office or that are specifically required of him by the Board. He shall sign or countersign, within limits defined by the Board, all documents requiring his signature.

Section 4-9. Executive Director. The Board of Directors shall appoint an executive director who shall serve as the executive officer of the Corporation to whom the Board may delegate, except as set out in section $3-8$, such powers as may be necessary to manage the corporation and who may also be charged with implementing resolutions or other directives of the Board.

The Board shall appoint an associate executive director to assist the executive director. The executive director shall fully inform and involve the associate executive director in all aspects of his activities.

When the executive director is temporarily unable to perform his duties, his authority will be exercised by the associate executive director.

The executive director may appoint and remove such personnel as authorized by the budget and in accordance with policies to be established by the Board and with local regulations and will establish the duties of such personnel.

When invited to attend meetings of the Board the executive director may be represented by the associate executive director.

The executive director shall submit to the Board:
a) a financial statement for the preceding fiscal year.
b) the final budget estimates for the ensuing fiscal year,
c) the first provisional budget estimates for the next following fiscal year,
d) the revised provisional budget estimates for the next following fiscal year,
e) an activity report including an analysis of the time of use of the telescope during the preceding fiscal year and a forecast of activities for the ensuing fiscal year.

There shall be set forth in the activity report the work of the past year and that projected for the ensuing fiscal year and the projected resources therefor, particularly as concerns personnel and scientific equipment. Said report shall contain a general survey of projects which extend over more than one year.

The Board shall take action on points (b) and (c) above by December 20 and on points (a) and (d) above by June 30 of each year. The corresponding documents are transmitted to the directors and to the members of the Corporation at least one month before the meeting of the Board:

The executive director administers the financial affairs of the Corporation in accordance with the budget approved by the Board. The budget statement shall include the receipts and capital and operating expenditures for the fiscal year and set the limits of the expenditures to be incurred by the executive director.

At each regular meeting of the Board, the executive director will submit a report on the management of the Corporation including a statement of commitments and of payments made since the previous regular meeting, and a statement of the sums received during the same period.

The executive director shall seek the advice of the Scientific Advisory Council on the following points:
a) allocation of the time of use of the telescope,
b) terms for use of the Corporation's equipment and facilities from the scientific and technical standpoint,
c) development of the instrumentation,
d) portions of budget drafts which reflect the scientific activities of the Corporation,
e) purchase, manufacture or modification of the scientific equipment.

## BYLAW 5

THE SCIENTIFIC ADVISORY COUNCIL
Section 5-1. Number of Members and Terms of Office. The Scientific Advisory Council consists of the following members. appointed by the Board of Directors:

- 4 members designated and removabale by NRC
- 4 members designated and removable by CNRS
- 2 members designated and removable by UH
- up to 4 members selected by the Board from the international scientific community on them the recommendation of the other members of the Council.

Members of the Council shall be appointed for terms of four years. No member may be appointed for two consecutive terms.

Without prejudice to the above paragraph, half the members of the first council shall be appointed for terms of two years which can be renewed for terms of four years.

Any member of the Council who, without valid reason, is absent at two consecutive meetings of the council will be considered as having implicitly resigned and will be replaced as provided in section 5-2.

The executive director and the associate executive director attend the meetings of the Council. On occasion the council may deliberate without their presence, if it so wishes.

Section 5-2. Vacancies. Vacancies shall be filled in the same manner as the original appointments.

A member of the Scientific Advisory Council appointed to fill a vacancy serves until the end of his predecessor's term. He may be reappointed if his term of office has been less than two years.

Section 5-3 Chairman and Vice-Chairmen. The Scientific Advisory Council shall elect for a two-year term of office a chairman who must be a member of the Council. It shall also elect, for terms of one or two years, one or more vice-chairmen who must be members of the council.

Section 5-4. Role and Duties. The Scientific Advisory Council provides advice to the Board of Directors and to the executive director concerning scientific and technical questions relating to the aims of the corporation and in particular to the matters referred to in section 4-9.

The Council submits its report in English and in French to the Board before the Board meets to examine preliminary and final budget estimates as defined in section 4-9.

The Council shall be vested with such other roles and perform such other duties as the Board may deem advisable to confer upon it.

Section 5-5. Meetings - Notices and Reports. The Scientific Advisory Council meets at least twice per year. The Council meets at the request of the Board of Directors; it may also meet on its own initiative, or at the request of the executive director, with the concurrence of the chairman of the Board.

Meetings of the Council are convened by its chairman and notices are sent to Council members at least one month in advance.

Any seven members of the Council shall constitute a quorum.
The chairman of the Board, or his proxy, as well as persons invited by the chairman of the Council, may attend meetings of the Council, as observers.

A report of the principal discussions at each meeting of the Council and of its recommendations is written in English and in French and signed by the chairman and then sent to the members of the council as well as to the chairman of the Board.

Section 5-6. Compensation. The members of the Scientific Advisory Council receive no compensation for their services. However, the Board of Directors shall decide what expenses will be chargeable to the Corporation for attendance at regular or special meetings of the council.

Nothing herein contained shall be construed as precluding a member of the Council from serving the Corporation in any other capacity and receiving compensation therefor.

BYLAW 6

## OBSERVATION TIME

Section 6-1. Applications. Only applications for observation time which are sponsored by a member of the Corporation shall be submitted to the Corporation for consideration.

Section 6-2. Allocation. The Board of Directors, on recommendation of the Scientific Advisory Council shall establish the procedures for allocating the available telescope observation time, provided however that the observation time allocated to each member shall constitute a portion of the total available observation time averaging:

| - | NRC | CNRS |
| :--- | :--- | :--- |
| - | $42.5 \%$ |  |
| $-\quad$ UH | $\vdots$ | $42.5 \%$ |

Section 6-3. Transfer to Third. Parties. Each member of the Corporation may transfer to third parties (scientific agencies in countries other than France, Canada or the U.S.A.) any part of its observation time. However, this allocation can only take place with the unanimous agreement of the Directors present and upon the advice of the Scientific Advisory Council.

## BYLAW 7

CONTRACTS, CHECKS, DEPOSITS AND GIFTS
Section 7-1. Contracts. The Board of Directors may authorize the executive director to enter into a contract or execute and deliver an official instrument in the name and for account of the Corporation. Such authority may be either general or be confined to specific instances. It may be delegated by the executive director upon approval of the Board of Directors.

Section 7-2. Checks, Drafts or Payment Orders. Within limits determined by the Board, all checks, drafts or payment orders, notes or other evidences of indebtedness issued in the name of the Corporation are signed by the executive director or associate executive director and, if specified by the Board, also by the chairman or treasurer.

Section 7-3. Deposits. All funds of the Corporation are periodically deposited in the banks, trust companies or other depositories selected by the Board of Directors.
for acction 7-4. Gifts. The Board of Directors may accept or devise, whether consisting of personal or real property, pursuant to the purposes of the Corporation.

BYLAW 8

## BOOKS AND RECORDS

The Corporation shall maintain accurate and complete accounting records; it also keeps minutes of meetings of the Board of Directors and of the Scientific Advisory Council, and of committees having and exercising part of the authority of the Board.

## BYLAW 9

## AUDIT COMMITTE

Without prejudice to any audit required under domestic laws, the accounts are audited at the end of the fiscal year by an audit committee consisting of five members, of whom two will be designated by NRC, two by CNRS and one by UH.

This committee prepares an audit report and delivers it to the chairman of the Board of Directors for transmission to members of the Corporation.

The Board shall call for an audit at any other time during the year upon the request of any member of the Corporation.

BYLAW 10
FISCAL YEAR
The fiscal year of the Corporation commences on January 1 and ends on December 31 of each year, except for the first
fiscal year which shall commence on the date on which the charter of incorporation shall become effective and end on December 31 of the same year.

BYLAW 11
SEAL
The Board of Directors provides the Corporation with a seal designed to authenticate as required the official instruments of the Board.

BYLAW 12
DISPUTES
The Board of Directors shall endeavor so far as possible to resolve amicably any dispute which may arise as to the interpretation or application of the charter of incorporation or of these bylaws.

In the event that the dispute cannot be settled amicably, the Board shall refer the dispute to the members for resolution.

## BYLAW 13

DISSOLUTION
The members taking into account any recommendation of the Board of Directors, shall select the method of dissolution of the Corporation.

BYLAW 14
DUTIES, FUNCTIONS AND POWERS
The foregoing statement of duties, functions and powers shall not be considered either as definitive or as excluding other duties, functions and powers which the Board of Directors may prescribe.

BYLAW 15
RULES OF ORDER
Rules of order shall be prepared by the Board of Directors
for cases which are not covered by these bylaws or by other applicable texts.

## BYLAW 16

## AMENDMENTS OF THE BYLAWS

Amendments of the bylaws will be considered by the members upon the request of any member or upon the recommendation of the Board of Directors. Requested amendments shall be set forth in writing and shall clearly indicate additional provisions or provisions to be amended or supplemented. Such amendments shall take effect only upon unanimous agreement of the members.

These bylaws will come into force on the date of the last signature below.

Signed in six copies, three in English and three in French, the text in both languages having equal validity,
at ottawa on 24 May 1974
by $\quad$ W.G. Schneider
for the National Research Council of Canada
at St. Michel on 20 June 1974
by P. Creyssel
for the Centre National de la Recherche Scientifique
at Honolulu on 31 May 1974
by J.T. Jefferies
for the University of Hawaii

