

A telescope is born

The road to Mauna Kea

No longer a far-off dream, the Canada-France-Hawaii Telescope was opened officially in September by representatives of the three partner governments. After five years of planning and construction, the highest major observatory in the world raised its eye to the stars.

Barely five years ago, the project was launched with a shovelful of coarse volcanic earth. Soon after ground-breaking, bulldozers began to level the tip of a barren cinder cone at the wind-swept crown of Mauna Kea, an extinct volcano on the island of Hawaii.

There, three partners had agreed to build a telescope. Canada would share most of the cost with France. The State of Hawaii would provide the site as well as support facilities already in place for smaller telescopes on the mountain. To coordinate the work, the Canada-France-Hawaii Telescope Corporation was formed from members of the partnership.

The pieces of the telescope would be made in different locations in Canada and France, then shipped to Hawaii and assembled on Mauna Kea. The site had been carefully chosen. To find the best location for the new observatory, engineers had done wind tunnel tests on a scale model of the mountain top. Turbulence studies on a small replica of the telescope building determined its ideal shape and height.

As work began, the months of deliberate planning were challenged by the hardships of construction on "White Mountain". Four thousand two hundred metres above the Pacific Ocean, the air is very thin. For workers acclimatized to sea-level conditions, it was slow going. Well into July, crusted snow lies in the frigid shadows of the cinder cones. Year round the temperatures hover near zero, whipped even lower against the faces and hands of construction crews by the summit winds.

Despite these harsh conditions, a thick concrete pier, the cylindrical

The historic sky portrait taken at "first light", the initial observation made with the new telescope. This globular star cluster in the constellation Hercules (referred to as M-13) was photographed on 11 August last year. (Photo: Canada-France-Hawaii Telescope Corporation)

Cette photo historique du ciel est la première image recueillie à l'aide du nouveau télescope. Cet amas globulaire d'étoiles dans la constellation d'Hercule (désignée par le sigle M 13) a été photographié le 11 août 1979. (Photo: Société du Télescope Canada-France-Hawaii)

