

## Hoku Ke'a Observatory Historical Timeline

- **1968:** Construction of two Boller & Chivens 24" telescopes on Mauna Kea, one for the Air Force Cambridge Research Laboratories (located on the current HKO site) and the other by NASA-Lowell Observatory. Both telescopes are mostly used for diverse studies on planets and the Moon, mainly in support of the US space program.
- **1970:** After 19 months mostly dedicated to Moon studies (in particular in the infrared), the Air Force cedes ownership of their observatory to UH in June 1970.
- **1970-1975:** Both telescopes are extensively used by Lowell and UH, in particular for studies of the Moon, asteroids and Mars. Other works include studying the atmosphere of Jupiter and Venus.
- **1975-1976:** Most extensive work on galaxies and nebulae are conducted using a 2D Reticon electronic array. Other works include photometric measurements of quasars and Ap stars.
- **1986-1988:** The UH 24" is used as part of a large campaign to study the atmospheric conditions of Mauna Kea.
- **1991:** The UH 24" is used as a testbed for the new infrared detectors NICMOS.
- **1992-1993:** The telescope is used for a campaign to study the Apollo-type asteroid Toutatis. Other similar studies are conducted later on of other specific asteroids.
- **1994:** The NASA-Lowell Observatory 24" telescope is decommissioned in August to make way for the Gemini North Observatory.
- **1994:** The UH 24" participate in the campaign to monitor the impacts of the Shoemaker-Levy comet on Jupiter.
- **1996-1997:** The telescope is used to conduct a Galactic Cepheid survey with a wide-field infrared camera named QUIRC.
- **2002:** The telescope is used for another campaign on MK seeing measurements, to evaluate turbulence above the surface layer.
- **2003:** The UH Institute for Astronomy (IfA) transfer the stewardship of the 24" to UH Hilo Department of Physics & Astronomy. The telescope is regularly used by students to conduct projects, in particular on variable stars.
- **2008:** The Boller & Chivens 24" is decommissioned after 40 years of operation. A new 36" telescope from Equinox Intersciences will replace it. The enclosure must also be replaced. This work is funded through a NSF grant and UHH. The new observatory is renamed Hoku Ke'a.
- **2010:** The new observatory is completed. However, optical and mechanical problems arise with the new telescope. The new dome also has mechanical problems and is not waterproof.
- **2012:** It is found that the primary mirror of the telescope has severe aberrations. The mirror is sent to the mainland for reconfiguration. A new secondary mirror is also fabricated. Some repairs are

attempted of the dome as well as the mechanical aspects of the mirror cell, control system, and telescope control.

- **2013:** Under a recommendation by its new director, UHH estimates that the current equipment will be too costly to repair and will never meet the requirements of its astronomy program. A decision is made to replace the observatory again with a smaller but much more modern telescope design. Discussion with UH-Manoa are taking place as well since they are interested in using the new observatory for their undergraduate program.
- **2015 (January-April):** CIP Funding is obtained for the refurbishment project as part of a larger effort to refurbish the UH telescopes (2.2m and HKO) on Mauna Kea. About \$400k is assigned to the HKO project. Preparation for procurement of the new equipment is undertaken.
- **2015 (July):** Due to constraints from the Governor office on the number of observatories on Mauna Kea, UHH indicates that the observatory will be decommissioned.
- **2015 (October):** Funding for the refurbishing of the observatory is reinstated and procurement preparation is started again. The plan is to have the observatory located on a temporary site (maybe the UHH campus) before moving to a more permanent location. A different, more portable dome is envisioned. The UHH Notice of Intent for Decommissioning the current site is received by OMKM.
- **2016(January-March):** The bidding process closes and selection of the different vendors is made.
- **2016(April):** Selected vendors are notified and procurement of the new equipment starts. The observatory director meets with members of the community regarding the possibility to keep HK on Mauna Kea due to its high educational value. Decommissioning is discussed at the Kahu Ku Mauna committee meeting.
- **2016(May):** The OMKM Board discusses the NOI for the HK decommissioning but postpone its decision to a later time due to numerous testimonies from community members asking UHH to reconsider its decision.
- **2016(June-July):** Many components for the new observatory are delivered to Hilo including the new clamshell dome. The telescope is expected to arrive in August 2016.