

ation requirements have been met. Lateral image motion, autoguider interruption, slow focus control, and focus repeatability problems have been eliminated. The new focus mechanism specifications are as follows:

- Total Z Motion /Secondary Mirror: ± 16 mm

FOCAL PLANE TRAVEL: ± 88 mm

- Focus Mechanism Repeatability: ± 1.5 μ m
- Resolution: 1 μ m
- Incremental Movement Settings: 1/10 μ m

Continued efforts to upgrade components of the existing f/8 mirror cell can be expected. Although not scheduled as yet, considerations are underway to possibly equip the mirror cell fixed pads with load cells and replace existing cosine vacuum and pressure regulators with electronically controlled regulators thus creating a closed loop system to more accurately maintain the f/8 mirror configuration through the entire range of telescope motion.

Finally, it is appropriate at this time to extend thanks and appreciation to all those who have committed their efforts, professionalism, and dedication to the success of this project.

D. Sabin

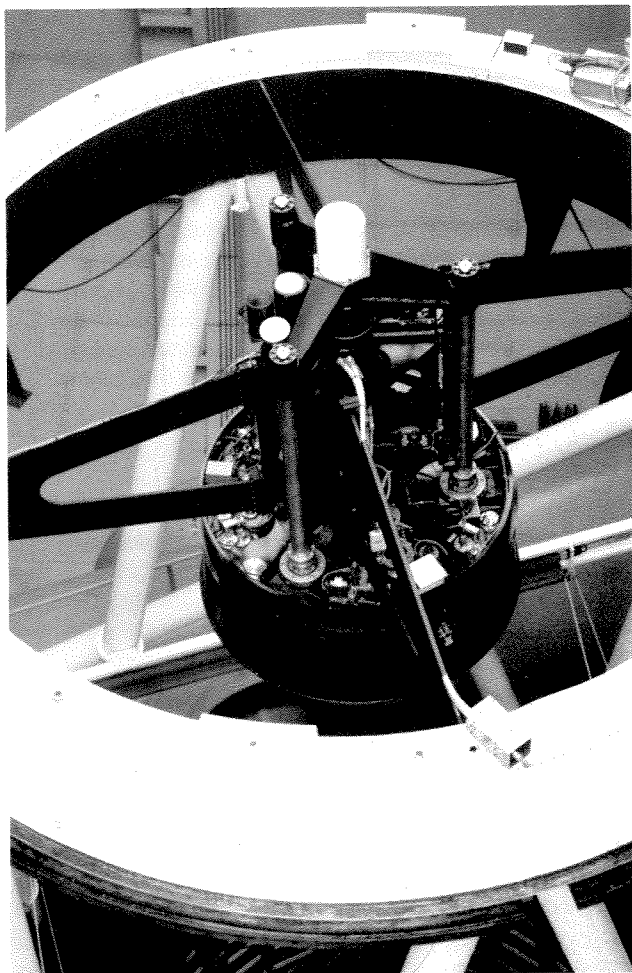


Figure 7.

CFHT Data Archival Update

The CFHT data archiving system has undergone some significant changes over the past several months.

- The original 800 Mbytes capacity Maxtor optical disk drives have been taken out of the active archive loop. They are kept running now only to service retrieval needs of data stored on the 800 Mbytes optical platters. The six Gbytes capacity Sony optical disk system is now the exclusive storage device for CFHT data. When an optical platter is filled, it is sent to the CADC to be entered into the CADC data base system. A temporary Exabyte tape backup is made of the optical platter prior to its shipment.
- A larger hard disk buffer area for data has been added to the archive host machine, which is located in Waimea. This makes it easier to handle "data storms" from the summit, thus, preventing disk overflow at the summit.
- The seeing quality data extracted from the fits files created by some instruments is now being made available to all CFHT personnel.
- It should be noted that user requests for CFHT data which has been sent to CADC, should be directed to CADC in the future.

A final note. Those of us who have worked on the archive system would like to thank Marc Sauvage for the excellent work he has done on the archive system. Marc has recently returned to France.

R. Link

f/35 New Upper End Installation

On March 2, 1990 at 15:30 hrs CFHT was proud to announce the installation of the new IR Upper End with the new focus unit and new f/35 mirror. This project started almost four years ago, with the manufacturing specifications for the new IR secondary mirror. Two years ago, the conceptual design studies on changing the IR focus unit began and now CFHT has entered a new regime. The focus unit was placed into service in a six week period.

Opto-mechanical alignment consisted of establishing the center-line between the primary and the secondary mirrors. The new design allowed the mirror center to be within 0.3 mm of the right alignment, whereas the old unit was 5 mm off-axis with no adjustment possibilities. Collimation proved to be the easiest procedure with the as-designed spherical surface bearing working according to expectations.

The new focus unit is currently running in a mirror chopping mode and is vibration free up to 30 Hz at 20 arcsec amplitude. The unit itself has a first bending vibrational mode at 160 Hz due to its design weight and stiffness. The focus resolution and repeatability are near 1 μ m with a total focus travel of ± 22 mm. In May the Circus observing run reported "no image degradation due to seeing, only a stable single diffraction core surrounded by a broken ring with no measurable correlation time"; which speaks for itself!

E. Stokes