

BIMONTHLY SUMMARY

May - June 2000

First Light and the Re-Dedication of the MMT

The MMT Conversion Project passed a significant milestone on the night of May 17, 2000 when first light at Cassegrain focus was achieved. A team of scientists and engineers led by S. West and J.T. Williams collected images with a small Apogee CCD camera mounted on the Top Box. The quality of the images surpassed all expectations. A small amount of astigmatism was removed by applying bending forces to the primary, and the secondary's shadow was centered in the out-of-focus image. Even with these simple 'by-eye' estimates of the aberrations, the telescope showed what it is capable of. Two examples of short exposure images, above, show a binary star with projected separation of 0.7 arcsec to be clearly resolved. The cores of the images have diameters of about 0.3 arcsec.

The Re-Dedication of the telescope followed on May 20. Roughly 200 celebrants assembled at the FLWO Base Camp to listen to speeches by C. Foltz, P. Strittmatter, UA President Peter Likins, I. Shapiro, and Smithsonian Under Secretary for Science Dennis O'Connor. Following an al fresco dinner, the crowd re-assembled for talks by Roger Angel and Bob Kirshner, followed by a ribbon-cutting ceremony. The latter was particularly dramatic – the telescope, which was parked at low elevation, slewed up and broke a ribbon that was spanning the open chamber doors. This event was transmitted to the Base Camp via a microwave video link.

A public celebration of the telescope's reincarnation was held two weeks later on June 3. Approximately 250 people attended this event, which included an open house at the Visitors Center, a talk by C. Foltz, and telescopic viewing using telescopes set up and manned by members of the Tucson Amateur Astronomy Association.

I. Personnel

Mechanical engineering student Gabriel Guerrero, whose contributions to our design and drafting efforts have been exceptional, graduated in May. UA mechanical engineering student Steve Bauman replaced him.

Pamela Garrison, hired in early March as a temporary drafter to assist in the design of the f/5 cell, was hired as a permanent employee the end of May.

Department office student worker Staci Hayes left the MMTO in May. UA student Christina Pease replaced her in June.

C. Foltz gave a public lecture on the MMT and the Conversion Process to the Tucson Amateur Astronomy Association on May 5.

II. Development

A. The 6.5 m Telescope Project

A thorough review of project activities is given in *The MMT Conversion Quarterly Summary*, to which interested readers are referred. The most recent edition, covering the period from January 1 - June 30, 1999 can be found on the web at http://sculptor.as.arizona.edu/foltz/qsum99_1/.

III. Operations

A. Highlights

The first observing run with the 6.5-m MMT occurred from June 9 - 18. Phil Hinz and Bill Hoffmann used MIRAC/BLINC to obtain diffraction-limited images at 10 microns. This instrument has a nulling interferometric capability, which was used to look at a variety of late type stars.

B. Public Access Observing

T. Ueta (U. Illinois) used MIRAC/BLINC for the equivalent of one night's observing during the Hinz/Hoffmann run. This was the first of 162 Public Access nights to which we are committed over the next six years.

IV. General Facility

No activity to report.

V. Optics

No activity to report.

VI. Maintenance and Repair

No activity to report.

VII. Visitors

May 16: Tom Lucas of Lucas Productions, who is producing a Nova segment about Bob Kirshner and featuring the MMT, accompanied by C. Foltz.

May 17: Arizona Daily Star photographer Jeffry Scott.

June 2: Tom Lucas of Lucas Productions, who is producing a Nova segment about Bob Kirshner and featuring the MMT, accompanied by C. Foltz. This visit completed their on-site filming.

June 16: Science writer Greg Clark (Space.com), accompanied by C. Foltz.

June 23: Nick Woolf and a small group of scientists working on space mirrors visited the MMT.

June 28: Eighteen observatory managers, including personnel from ESO, Yerkes, NOAO, Palomar, NRAO, accompanied by C. Foltz and J.T. Williams.

VIII. Publications

A. MMTO Internal Technical Memoranda

None

B. MMTO Technical Memoranda

None

C. MMT Conversion Internal Technical Memoranda

00-3 MMT f/9 Secondary Mirror Installation into Cell
B. Cuerden

D. MMT Conversion Technical Memoranda

00-5 MMT Conversion f/9 Secondary Assembly Procedure
S. C. West, R. Allen

E. MMTO Technical Reports

None

F. Scientific Publications

00-6 Kinematics and Mass Profile of AWM 7
Koranyi, D. M., Geller, M. J.
AJ, **119**, 44.

00-7 M31 Globular Clusters: Colors and Metallicities
Barmby, P., Huchra, J. P., Brodie, J. P., Forbes, D. A., Schroder, L. L., Grillmair, C. J.
AJ, **119**, 727.

00-8 Absolute Properties of the Eclipsing Binary Star FS Monocerotis
Lacy, C. H. S., Torres, G., Claret, A., Stefanik, R. P., Latham, D. W., Sabby, J. A.
AJ, **119**, 1389.

00-9 The Nature of LINERs
Alonso-Herrero, A., Rieke, M. J., Rieke, G. H., Shields, J. C.
ApJ, **530**, 688.

00-10 Absolute Dimensions of Eclipsing Binaries. XXIII. The F-Type System Ei Cephei

Torres, G., Andersen, J., Nordström, B., Latham, D. W.
AJ, **119**, 1942.

00-11 The Cessation of Eclipses in SS Lacertae: The Mystery Solved
Torres, G., Stefanik, R. P.
AJ, **119**, 1914.

00-12 Rotation Curve Measurement using Cross-Correlation
Barton, E. J., Kannappan, S. J., Kurtz, M. J., Geller, M. J.
PASP, **112**, 367.

G. Observing Reports

W. Hoffmann: June 9-18, MIRAC/BLINC

Copies of these publications are available from the MMTO office. We remind MMT observers to submit observers' reports, as well as preprints of publications based on MMT research, to the MMTO office. Such publications should have the standard MMTO credit line: "Observations reported here were obtained at the MMT Observatory, a facility operated jointly by the Smithsonian Institution and the University of Arizona."

Submit publication preprints to bruss@as.arizona.edu or to the following address:

MMT Observatory
P.O. Box 210065
University of Arizona
Tucson, AZ 85721-0065

H. MMTO in the Media

C. Foltz was interviewed by Dennis Lambert, host of Morning Edition for Phoenix NPR station KJZZ on May 23. The interview was broadcast throughout Arizona on the KJZZ repeaters.

I. MMTO Home Page

The MMTO maintains a World Wide Web site (the MMT Home Page) which includes a diverse set of information about the MMT and its use. Documents that are linked include:

1. General information about the MMT and Mt. Hopkins.
2. Telescope schedule.
3. User documentation, including instrument manuals, detector specifications, and observer's almanac.
4. A photo gallery of the Conversion Project as well as specifications and mechanical drawings related to the Conversion.

5. Information for visiting astronomers, including maps to the site and observing time request forms.
6. The MMT/O staff directory.

The page can be accessed in two ways. First, it can be loaded via URL <http://sculptor.as.arizona.edu>. Second, it can be accessed via a link from the OIR's MMT page at URL <http://cfa-www/cfa/oir/MMT/mmt/foltz/mmt.html>. The former should be used by interested parties west of the Continental Divide; the latter is a copy, which is locally mirrored at SAO and is much faster for East Coast access.