dome and comparing the seeing measurements with those of DIMM2 (permanently installed near the Schmidt telescope) indicate that, when operated correctly, the AIRCO system effectively eliminates dome seeing, at least for the conditions prevailing during the tests. This indicates that the seeing degradation experienced with most instruments, notably EFOSC, is due to heat sources at the telescope itself. A plan for monitoring and eliminating these heat sources is in preparation. In the mean time, the AIRCO system will not be used except in cases where considerable seeing improvement has been reported (i.e. Come-On+), since the tests clearly show that the cooling aggravates the effect of any uncontrolled heat sources in the dome like for example an outside door accidentally left open.

Manuals

New manuals are available for EFOSC2 and IRAC2. Also, updates for the EFOSC1, CES, and CASPEC manuals have been written. All are available from the Visiting Astronomers Section.

On-Line MIDAS

Workstations for on-line data reductions with MIDAS are now available at the 0.9-m, both 1.5-m telescopes, the 2.2-m telescope, the NTT, and at the 3.6-m telescope for TIMMI and Come-On+. It is expected that the CES and the 3.6-m EFOSC, MEFOS, and CASPEC will be connected to workstations very soon. Work is in progress to replace the old IHAP-based HP acquisition programmes by workstation-based systems.

B & C Gratings

A 2,400 gr/mm holographic grating was successfully tested at the ESO 1.5-m telescope. With a blaze at 400 nm this grating is more efficient and spectrally cleaner than the equivalent conventional unit (Grating #20 in second order; 2.9 nm/mm). The tests were done using a temporary support that introduces some astigmatism. The grating will be offered to visitors as soon as a permanent support has been manufactured.

Dutch Telescope Focus

The focus stability of the Dutch telescope has been substantially improved by the installation of a new secondary mirror support unit. The slow focus drift during the night which remained after the installation of the new unit, seems almost certainly related to overcooling of the unit by radiation during the night. Work is in progress to eliminate this effect.

ESO 50-cm Telescope

The automatization of the ESO 50-cm telescope, following a scheme similar to the one used at the Danish 50-cm, has been completed, although the debugging of the new system is still not complete. The pointing of the telescope is now excellent (typically 10″ rms), and the autocentring device allows the telescope to be used fully automatically. Tests for remote operation will be conducted soon.

NTT BITS & PIXELS

With this periodically compiled collection of short notes, the NTT Team intends to keep the community informed about changes in performances, configuration, and operation of the NTT and its subsystems.

NTT Coordinator

On a rotating basis, this new function is shared between the 4 NTT astronomers on La Silla (presently E. Giraud, R. Gredel, G. Mathys, and J. Storm). From early in the morning into the first hours of the night, the NTT Coordinator is supervising all activities at the NTT. He has full responsibility and authority for any decision which has to be taken on a short notice in response to the daily requirements. He can be reached via paging code No. 50 and in most cases is the primary on-site contact person for NTT observers.

Day Time Interventions

Any day-time work at the NTT requires prior approval by the NTT Coordinator. Every day, the period between 9 a.m. and 2 p.m. (may be extended by the NTT Coordinator) is reserved for maintenance, instrument setups, and repairs. Upon termination of the work (not only completion), the NTT Coordinator has to be informed about the progress made and the effects on performance expected for the night so that night assistants and observers can prepare themselves accordingly.

NTT Calendar

The NTT Coordinator enters all maintenance and other work into a computer-based calendar. From any X-terminal connected to the workstations of the Astronomy Support Department and the NTT, this calendar can be viewed by typing `nttcal`. This simple but very useful tool has kindly been created by C. Levín.

Electronics Support Strengthened

The NTT Upgrade Plan (now available via anonymous `ftp`, cf. below) foresaw that initially only one electronician (D. Gojak) would work for the NTT but that the adequacy of this approach would be carefully monitored. It has become evident that also in the respective other weekly shift electronics support is constantly required. We are, therefore, happy to announce that R. Parra has for a significant part of his time been assigned to the NTT. In fact, he is not at all new at the NTT, and many NTT (and other) observers will know him already.

Image Quality

Elongated images have been reported by many observers. It now seems probable that the main contributing factor is astigmatism. Its nature will be studied in more detail during the forthcoming test nights in May and June. Nevertheless, in one night in May images as good as 0.35 arcsec FWHM were obtained which is virtually identical to the results achieved at first light (cf. *The Messenger* No. **56**, 1). A decisive factor contributing to this recovery has, of course, been the dramatic improvement in the average seeing on La Silla which has taken place since the middle of 1993 (see the article

by M. Sarazin on page 13 of this issue of the *Messenger*).

MIDAS Data Organizer

A customized version of the Data Organizer is now installed on-line at the NTT (cf. MIDAS Manual, Vol. B, Chapter 15). Each time an EMMI/SUSI FITS file arrives at the workstation, its header is appended to the so-called Observation Summary Table and selected keywords may be displayed in a scrolled window in an easily legible format. Each exposure is classified automatically according to its exposure type and the optical path used. This classification eases the monitoring of the on-going observing run and will in future be used also for on-line calibration and data reduction.

(*M. PÉRON*, Observation Support and Data Handling Group.)

Improved Pointing Expected

A bug has been found in the refraction correcting part of the telescope control software (we thank K. Wirenstrand for his help with the analysis). A quick analysis of pointing measurements obtained on side B (EMMI) in the night before this article was written suggests that a pointing accuracy of as good as 0.9 arcsec (rms) over the sky may be achievable. A new check of the tracking performance figures on the May test plan.

Early MOS Images in Service Mode

Effective July 1st, the NTT Team will on an experimental and best-effort basis try to supply multi-object spectroscopists in advance with direct images of a few of their fields so that the operational efficiency of the MOS mode of EMMI is satisfactory from the first night. All observers who might take advantage of this new service during Period 53 have been informed by letter.

Furthermore, the Data Management Division has kindly offered support for the analysis of options for the export of the EMOS software package used at La Silla for the preparation of data files for the EMMI punching machine.

Rotator Tests

During the months of March and April, a large number of test data have been accumulated to identify the reason for occasional excessive friction which on both sides completely blocked the bearing of the rotator/adapters. A software modification has been introduced by B. Gustafsson to suppress the worst symptoms. A first model has been developed by F. Franza which will be scrutinized in the coming months. We thank all observers concerned by our extensive day time tests for their patience and cooperation.

Another problem associated with the rotators, namely the power amplifiers being suddenly switched off, has not yet been eradicated. But the frequency of occurrence could be reduced. Analysis continues.

Electronic Bulletin Board

A separate newsgroup `ntt` has been created on ESO's electronic bulletin board. It can be reached by telnetting to `mc3.eso.hq.org`, account esobb (no password needed). It carries news which are too recent or too ephemeral for inclusion in the manuals.

Anonymous ftp Account

We aim at making PostScript versions of manuals, major test reports, etc. available via anonymous `ftp`. The node name is `ftp.hq.eso.org`. Select subdirectory `pub/NTT`. Announcements of the available documents are posted on the electronic bulletin board (cf. above). An updated version of the IRSPEC manual is being offered via anonymous ftp only (it will not be printed).

E-mail Info Service

Astronomers who find that the available manuals (a substantially revised EMMI/SUSI manual is in preparation) and the information channels mentioned above still do not answer all their questions about the NTT and its instruments are encouraged to send e-mail to `ntt@eso.org`.

Preview

In the next issue of the *Messenger* we hope to inform you about the results of field tests of the first components of the new, "VLT-like" control system, improvements of the current control software, results of extensive opto-mechanical tests planned for May and June (including the tracking of moving targets), experiences with the new computerized problem reporting and tracking system, the status of the parallel mode of the active optics system, and others.