

ASSA Instrumentation Section Report – July 2026

The purpose of the Instrumentation Section is to support people with respect to the selection, acquisition, construction, use, maintenance, refurbishment and disposal of astronomical instruments. Activities of the Section largely revolve around communication, outreach, guidance and education, plus the important aspect of encouraging people in the pursuit of their personal instrumentation projects. There is no drive to formally induct members into the Section. Rather, the approach is to address ad-hoc needs for information or assistance by ASSA members or the public, on a case-by-case basis.

In support of the Society's general communication efforts, which equally support the instrumentation Section's goals, activities in the following media are ongoing:

- FaceBook: ASSA national FaceBook page, Telescope Making SA and Amateur Telescope Making groups
- WhatsApp group dedicated to the SA Telescope Making Class
- One-on-one e-mails, phone calls and WhatsApp messaging
- ASSA national website, especially the popular and rather active Second-Hand equipment page.

The distinctly South African "Telescope Making SA" FaceBook group which currently has 1091 members, attracts attention from around the world. The International involvement produces an energetic flow of ideas, information, technical assistance and encouragement. Some of the (at times unusual) approaches to instrumentation developed locally have, after being highlighted in this medium, been favorably received and copied abroad. Prospective members are vetted prior to admitting them to the group, appropriate behaviour being gently but firmly enforced. Similarly, the US-based "Amateur Telescope Making" FB group, of which the author is also an administrator, currently boasts a worldwide membership in excess of 10 000. There is a degree of cross-pollination between the groups. Unfortunately, due to heightened data privacy legislation globally, it is no longer possible to provide a more detailed demographic breakdown of the memberships.

The ATM class has been continuously active since July 1991, with expertise, materials and components freely shared for individuals' projects. We are thus celebrating its 35th anniversary this year. Physical classes are ongoing, subject to rare intermittent interruptions due to school activities. The "class" (really an ongoing workshop) is run informally in a flexible manner to accommodate the vagaries of members' lives. Members come and go according to their needs and available time, work at their own pace on individual projects, and sometimes return after a long hiatus dictated by personal circumstances. Consequently, it is not easy to ascertain the actual numbers of people or active projects at any time. However, there is always a handful of newcomers making good progress on their first instruments, whilst others continue older projects. Membership of ASSA, whilst encouraged, is not a prerequisite for participation in the ATM class. Recorded attendance is generally 4-12 people per week, fluctuating according to participants needs and other demands on their time. As long as there is interest and a venue, it will continue

Novel components continue to be produced, with 3D printed parts now becoming dominant. Again, several eyepieces were constructed from salvaged optics and donated to worthy candidates. Unfortunately supplies of such treasured items are dwindling, so anyone with "junk" optics of any kind is invited to donate same in order to continue supporting the community. The author continues to support the Girl Guides movement, by acquiring, refurbishing and donating equipment. At the time of writing 34 telescopes of varying levels of sophistication have already been donated and distributed countrywide. With more in the pipeline.

Former members of our ATM class, Etsu Takayanagi of Japan and Rajeev Gopal of India, returned to their homelands with the intention of establishing ATM classes modeled on how ours is run. Etsuo's class is now very active in a prominent science centre, with several telescopes already completed and several more in progress. It is growing in renown. Rajeev has located a suitable venue, is identifying sources of materials and supplies, and committed to translating our class notes into Hindi / Gujarati as there is little literature on the topic available in those languages. However, progress there is slow to date.

We again thank Daryl Garner-Savory of Elemod for their low-cost high-quality aluminizing service, without which telescope making, servicing and restoration in this country would be a considerably more difficult task. We are also eternally grateful to Parktown Boys' High school for allowing us continued use of their facility as a base for conducting our ATM class, over several decades and even across regime changes in the school.

Overall, the foregoing indicates a continuing healthy level of activity and interest.

Sadly, Rodney Hyman - a long-term supporter and contributor to our class - passed away recently. Similarly, renowned telescope maker Chris Forder in the Cape passed away earlier in the period under review.

Since Dave Blane, Director of the Double and Variable Star section, is stepping down from that role, it is apposite to note that he is also a telescope maker extraordinaire, and to relate an anecdote. In the early days of the ATM class's existence, Dave was in the final stages of figuring a mirror. It was almost finished, just needing a subtle touch for perfection. A beginner nearby in the class was struggling and Dave stepped away from his rather tall polishing station to assist. As he turned his back, the mirror slid off the lap and - with consummate precision - fell directly onto the steel leg of the stand, breaking in two. Whilst nothing could undo this calamity, we attempted to console him by providing a replacement mirror blank. The next Saturday, having toiled long into the night after work each day, he brought the fully functional completed instrument to show off. Nobody in the history of the class has surpassed that prodigious feat.

--- *Chris Stewart*