

## ASSA Instrumentation Section Report – July 2024

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 continue to largely revolve around communication, outreach, guidance and education, plus the important aspect of encouraging people in the pursuit of their personal instrumentation projects. This is mostly done via the Amateur Telescope Making (ATM) class, the FaceBook pages, e-mail correspondence, telephonic discussion, and WhatsApp/SMS. 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 pages
  - ASSA national FaceBook page
  - Telescope Making SA
  - Amateur Telescope Making
- Telescope Making Class WhatsApp group
- .IO group mail lists

The distinctly South African "Telescope Making SA" Facebook group attracts members from around the world. 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 and appropriate behaviour is gently but firmly enforced. At the time of writing, the Telescope Making SA Facebook page currently has in excess of 1100 members, steadily increasing year on year. Similarly, the international "Amateur Telescope Making" group, of which the author is also an administrator, currently boasts a worldwide membership in excess of 9500. Since FB have restricted the more detailed information previously enjoyed, due to heightened data privacy legislation globally, it is no longer possible to provide a detailed breakdown of the demographic.

The ATM class has been continuously active since July 1991, with expertise, materials and components freely shared for individuals' projects. Physical classes are ongoing, subject to rare intermittent interruptions due to school activities where we meet. 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. The class is run informally in a flexible manner to accommodate the vagaries of members' lives. Consequently, there is no easy way to ascertain the actual numbers of people or projects engaged in at any one time. However, a handful of newcomers are making good progress on their first instruments, whilst others are continuing their projects. Membership of ASSA, whilst encouraged, is not a prerequisite for participation in the ATM class. A class register is kept as an indication of activity levels, but signing it is not enforced. Recorded attendance remains steady at 6-12 people per week. Apart from the Facebook interactions, there are ongoing focused exchanges of e-mails, phone calls and WhatsApp messaging.

Novel components continue to be produced, with 3D printed parts now the norm. Again, several eyepieces were constructed from salvaged optics and distributed pro bono to worthy candidates. Unfortunately supplies of such objects are dwindling, so anyone with "junk" optics of any kind is invited to donate same in order to continue supporting the community.

Two 5" telescopes with altazimuth mounts were acquired, refurbished, packaged together in a large case suitable for travel to events affording dark skies, and donated to the Girl Guides national headquarters. These have already flown down to Natal for an event attracting many viewers. This of course promotes youthful interest in astronomy beyond our direct reach.

4 bereaved families have been assisted in identification, collation, advertising, sale and distribution of astronomical equipment from deceased estate. The Second-hand page on our website is continuously refreshed with new offers; this page is evidently closely monitored by the community, with choice items being quickly snapped up.

I would like to congratulate Vicus Cruywagen on completion of his first telescope, which is a spectacular performer on par with many instruments of twice the aperture with respect to image definition. This is a magnificent achievement for a first mirror. I would also like (as always) to thank Rodney Hyman and Daryl Garner-Savory 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 to use their facility as a base for conducting our ATM class over several decades, even across regime changes in the school.

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

*--- Chris Stewart*