ASSA Instrumentation Section Report – July 2025

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 active Second-Hand equipment page

The distinctly South African "Telescope Making SA" FaceBook group which currently has 1086 members, attracts attention 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, 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 of 9,770. 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. Physical classes are ongoing, subject to rare intermittent interruptions due to school activities. The class 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.

Novel components continue to be produced, with 3D printed parts now the norm. 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.

Former members of our ATM class, Etsu Takayanagi of Japan and Rajeev Gopal of Inda, have returned to their homelands with the intention of establishing ATM classes modeled on how ours is run. Etsuo's class is active, with several telescopes already completed and several more in progress. Rajeev has located a suitable venue, is in the process of 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.

We 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 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.

--- Chris Stewart